



MANAGING THE ROAD RISK OF VAN FLEETS

October 2014

About PRAISE

Using the roads is a necessary part of our working lives. But it's an ordinary activity that leads to an incredibly high level of injury and death. ETSC's PRAISE (Preventing Road Accidents and Injuries for the Safety of Employees) project addresses the safety aspects of driving at work and driving to work. Its aim is to promote best practice in order to help employers secure high road safety standards for their employees.

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Contributing Experts

ETSC gratefully acknowledges the invaluable contributions of the following experts in the preparation of this report:

Jacqueline Lacroix – German Road Safety Council (DVR)

Jesus Monclus Gonzalez – Mapfre Foundation

Rory Morgan – Iron Mountain

Will Murray – Interactive Driving Systems

Andrew Price – Zurich Insurance Group

Francois Riguelle – Belgian Road Safety Institute (IBSR-BIVV)

Deirdre Sinnott - Health and Safety Authority Ireland

For more information

European Transport Safety Council
20 Avenue des Celtes
B-1040 Brussels
Tel: +32 2 230 4106
information@etsc.eu
www.etsc.eu/praise

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Authors

Luana Bidasca
Ellen Townsend

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PART I

INTRODUCTION

The purpose of this report is to give an overview of van safety issues in Europe, and to encourage and enable van fleet operators to navigate European legislation and apply good practice measures for their drivers and businesses. In line with frameworks such as ISO 39001 or the Haddon Matrix, the report focuses on the business case, vehicle management, journey management and compliance-led driver management.

While ETSC believes it is in the public interest to tackle safety issues associated with this vehicle category at the European and Member State legislative and non-legislative level, employers should also work to reduce the overall risk exposure of van drivers and ensure that drivers and their vehicles are fit for the road.

With this in mind, we offer recommendations to businesses throughout the report, together with policy recommendations for national and European-level legislators.

1.1 The business case for safer van transport

Studies into the road safety culture of employers of van drivers have shown that the motivation to manage risk goes beyond drivers – the company culture and the role of management are highly important deciding factors for the degree to which road safety gets attention¹. Research into this field has shown that safety measures are more accepted, more effective and even more efficient when they connect to the company's core business – both for internal business measures and governmental². Contractors, maintenance companies, couriers and SMEs should gain more insight into the positive consequences of safe behaviour as this might provide an important business incentive to invest in safety.

From a business perspective, managing road safety in the van transport sector will provide employers with an opportunity to reduce costs in several ways:

- Reduced running costs such as fuel consumption and vehicle maintenance through better driving standards
- Reduced risk of work-related ill health
- Less stress and better job satisfaction
- Reduced vehicle damage
- Reduced administration around incident investigation
- Reduced insurance claims and premiums
- Fewer vehicles off the road for repair
- Less employee absenteeism
- Fewer missed orders and business opportunities.

¹ Starren, A.M.L., Beek van der, F.A., Gort, J., 2013, Policy measures to stimulate the traffic safety of lorry vans by enhancing the company's safety culture.

² Ibid.

An earlier ETSC report on making the business case for Work Related Road Safety (WRRS)³ quotes the costs and financial benefits that arrive from managing WRRS. ETSC's report on Work Related Road Risk Management (WRRRM) Programmes⁴ also gives an overview of the main WRRRM programmes available as well as best practice expertise from other companies that have implemented a risk management programme. Both reports are highly relevant to employers managing van fleets.



NOTE ON DEFINITION

This report targets vans, also known as light commercial vehicles (LGVs). According to the EU definition, vans are N1 category vehicles with a loading capacity of more than 500 kilograms and a gross vehicle weight under 3.5 tons⁵. This definition also includes passenger vans – vehicles with a maximum capacity of 8 passengers excluding the driver.

PART II

WHAT'S THE PROBLEM?

Van use in Europe is on the increase, particularly following a rise in the home delivery sector⁶. Developments in urban freight logistics have led to a shift towards vans, as they bring goods to centralised distribution hubs and distribute them within urban areas. More vans are also being used during office hours in central urban areas⁷, as heavier vehicles face increasingly restricted access to city centres. Night time van deliveries are also increasing, extending supermarket deliveries to evenings or early mornings. In addition, the online shopping phenomenon has led to a large increase in next-day deliveries of small items to households in particular.

Vans weighing less than 3.5 tons are not subject to the same legal scrutiny as heavy goods vehicles (HGVs).

In Belgium between 1997 and 2011, the number of vans increased by more than 83% to 603 229 vehicles, or 1 van for every 8.8 cars. In the Netherlands the number of vans has also been increasing rapidly over the last three decades, from slightly more than 5% of all motorized vehicles in 1986 to nearly 10% in 2009⁸. The pressure to keep up with market demands, competition in the transport of goods and a relative lack of regulation has led employers to bypass rules and this has affected the working conditions of van drivers.

Vans weighing less than 3.5 tons are not subject to the same legal scrutiny as heavy goods vehicles (HGVs). HGV regulations require operators to be licenced and the drivers require Certificates of Professional Competence (CPC). Van fleets are, as a consequence, perceived to lack the professionalism expected of HGV fleets. "White Van Man" is often seen as an aggressive driver who speeds and does not respect other key road traffic rules. Yet there is also evidence to show that generally vans are safer than passenger cars^{9,10}. However, more can and should be done to improve the safety of van fleets to bring them into line with the rest of the freight and passenger transport sector.

³ ETSC, 2014, The Business Case for Managing Road Risk at Work.

⁴ ETSC, 2012, Work-Related Road Safety Management Programmes.

⁵ European Commission, 2010, Light Goods Vehicles in the Road Transport Market of the European Union.

⁶ ETSC, 2010, Fit for Road Safety: From Risk Assessment to Training.

⁷ BESTUFS, 2006, Report on urban freight data collection in Belgium.

⁸ SWOV, 2010, Fact Sheet Lorries and delivery vans.

⁹ ETSC, 2013, 7th Annual Road Safety Performance Index (PIN) Report.

¹⁰ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

PART III

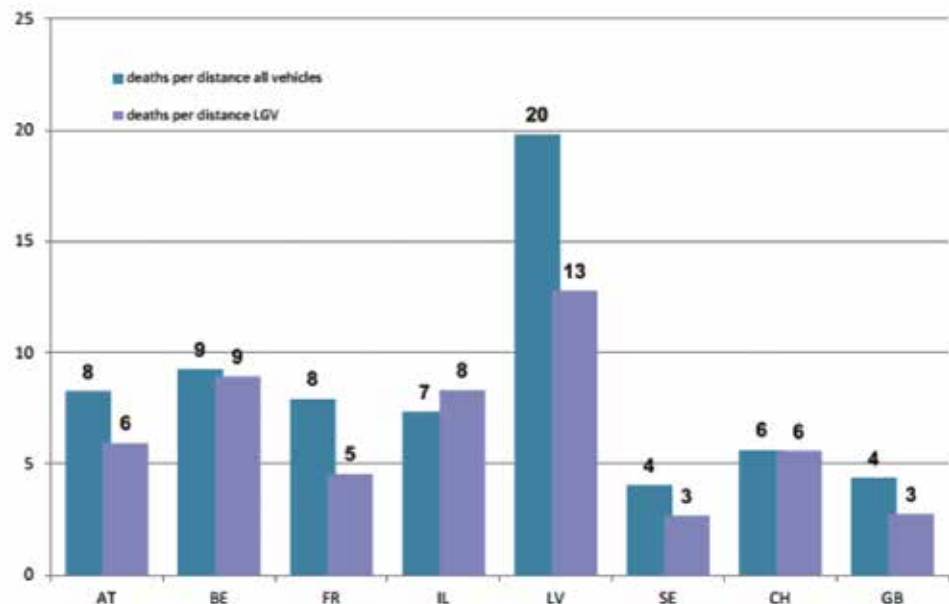
THE SAFETY RECORD OF VANS

19% of deaths in van collisions were pedestrians.

A total of 3,999 deaths occurred in Europe in 2012 in collisions involving vans^{11,12}. A large proportion of those killed were van occupants – 30% for vans compared with 12% for HGVs – reflecting in part the lower weight of the van, which makes their occupants more vulnerable. It is also worth noting that more vulnerable road users are killed in collisions involving vans, compared to the corresponding share in collisions involving HGVs: 19% of deaths in van collisions were pedestrians, compared with 14% of deaths in HGV collisions. With HGV traffic subject to entry restrictions in several urban centres in Europe¹³, smaller vehicles are being increasingly used for ‘last mile’ deliveries, leading to an increase in the share of vans in urban traffic. This is leading to more van traffic and activity in areas of high pedestrian concentration and offers a partial explanation for the observed figures. Road safety in urban areas should therefore focus on the purpose, or function, of the vehicles entering urban areas, rather than exclusively on their weight.

The data from the countries that record the distance travelled by vans show that, per kilometre travelled, the safety of vans is generally better than that of the entire vehicle fleet¹⁴.

Fig. 1: Road deaths in collisions with a van per billion vehicle km travelled by those vehicles (purple bars) with the corresponding rate for all vehicles (green bars). Average of the last three years for which the data is available.



¹¹ ETSC, 2013, 7th Annual Road Safety Performance Index (PIN) Report

¹² Goods vehicles with a maximum permitted mass below 3.5 tons

¹³ For further information, please consult ETSC, 2009, 3rd Road Safety PIN Report, Chapter 4 En route to safer mobility in EU capitals.

¹⁴ ETSC, 2013, 7th Annual Road Safety Performance Index (PIN) Report

A large proportion of drivers also use delivery vehicles for private trips.

In some countries, such as Belgium, there has been a worrying increase in the number of collisions involving vans; although the total number of collisions resulting in people killed and seriously injured (KSI) diminished by 27% between 1997 and 2007, the ones involving at least one van have increased by 21%¹⁵.

In Germany, collisions with vans between 2,8 and 3,5 tonnes have been analysed for the period 1996 - 2008¹⁶ and compared with vans between less than 2 and 2,8 tonnes and with small HGVs between 3,5 and 7,5 t. The involvement of this weight category (2,8 – 3.5) in accidents with personal injuries greatly differs from the other categories and increased by 300% between 1996 and 2001¹⁷. After 2002 the increase was less pronounced, but continued. In the same period, the involvement of all other categories of vehicles in accident with personal damages decreased by 15%.

In Spain, the crash involvement of vans in 2013 was 64% higher than the crash involvement of passenger cars: while 20.8% of delivery vans suffered a collision with other parties involved (excluding “solo” crashes), only 12.7% of passenger cars were involved in the same type of crashes. According to this study, the crash involvement of business vans or passenger vans is still 27% higher than the crash involvement of passenger cars. This is of particular concern since passenger vans transport the most vulnerable cargo¹⁸.

An in-depth study into 60 collisions involving 62 delivery vans by SWOV^{19,20}, found that the lower stability of certain types of van seemed to contribute to the collision involvement of these vehicles. The same study found that collisions involving delivery vans had more serious consequences for the collision opponent than collisions with passenger cars. This finding might be attributed to the design of delivery vans (higher, more angular shape and heavier). 72% of the collisions involved a light or a medium weight specific delivery vehicle.

The characteristics of the vehicle type are a contributory factor especially in collisions that occur when the driver reverses (See Part 5.5 of the report) and when the vehicle performs a near-side turn (left turn in the UK, Malta and Ireland, right turn in the rest of Europe) and fails to give way to a cyclist or moped rider who travels straight. In both cases the van driver’s view is hindered by the design of their vehicle. Improper and unstable loading (part 5.4) can also have a big impact on the safety of vans as it may cause skidding and loss of control.

Some of the risk factors often quoted by the research²¹ available are that road transport companies often employ young drivers, vans collide more often with oncoming traffic and vans are frequently involved in rear-end collisions. Some studies²² also note the large proportion of drivers who use the delivery vehicle for private trips. These types of vehicle may be company owned, but the vehicle’s journey is not always work-related.

¹⁵ Riguelle, F., & Roynard, M., 2014, Les camionnettes roulent-elles trop vite ? Mesure des vitesses pratiquées par les camionnettes sur les routes belges - 2013. Bruxelles, Belgique: Institut Belge pour la Sécurité Routière – Centre de connaissance.

¹⁶ Bast, 2010, Unfallbeteiligung von Kleintransportern.

¹⁷ This is explained in part by the significant increase of the van fleet in this period.

¹⁸ MAPFRE Foundation, 2014 (forthcoming), Dossier sobre seguridad de las furgonetas en España.

¹⁹ SWOV, 2010, Fact sheet lorry and delivery vans.

²⁰ In this context, delivery van refers to mixed type of vans with a gross vehicle mass of up to 3.5 t.

²¹ SWOV, 2010, Fact sheet lorry and delivery vans.

²² Ibid.

PART IV

SAFER DRIVERS

Van fleet risk is primarily influenced by the employer who has a key role to play in setting the agenda and rules about who, how, where and when vans can be used for work.

As a rule of thumb, no driver should be required to drive continuously for more than 2 hours without at least a 15-minute break.

There are three different main types of legislative measure that affect van drivers:

- measures that improve competence (knowledge and skills) of drivers
- measures that increase task capability (the degree of fitness to drive)
- measures that enhance task readiness (the willingness to drive safely)

Improving competence involves driver training, driving examination, professional driver diplomas, driving experience and extra training²³. In 2005, the European Commission rejected a separate licence for van drivers. However as of 2007 drivers of vans with heavy trailers attached (heavier than 750 kg) need a separate driving licence (category BE). ETSC's recommendation is to extend the Certificate of Professional Competence to van drivers as well.

Road collisions involving vans cannot be tackled by generic road safety measures alone. The issue must be tackled by examining road safety, road traffic and occupational health and safety measures collectively as they apply to van drivers and by mapping out a framework in which employees, employers and the self-employed work towards compliance with all three aspects of work related road safety equally. In essence this means bringing road safety into the workplace and managing worker safety on the road. Van fleet risk is primarily influenced by the employer who has a key role to play in setting the agenda and rules about who, how, where and when vans can be used for work.

4.1 Driver hours

Employers of HGV drivers have clear requirements under EU Regulation (EC) 561/2006 regarding driving time for their employees. However, this legislation does not apply to van drivers (below 3.5 tons). Under this regulation, the driving and rest time periods must be recorded and compliance with these rules must be regularly monitored using digital tachographs.

The same principles enshrined in this legislation should be extended to cover van drivers. Namely that: 'A transport undertaking shall not give drivers it employs or who are put at its disposal any payment, even in the form of a bonus or wage supplement, related to distances travelled and/or the amount of goods carried if that payment is of such a kind as to endanger road safety and/or encourages infringement of this Regulation.'

This should be extended to other parts of the supply chain including contractors and sub-contractors²⁴. This chain of responsibility should raise safety levels through extending the scope of liability to those parties who, through action or inaction, contributed to a breach and therefore bear a level of responsibility for it²⁵.

Employers of van drivers are encouraged to set and enforce in-house limits for

²³ Ibid.

²⁴ Subcontractors are very often self-employed and therefore they do not have to comply with social regulation requirements. They have to travel more to earn money.

²⁵ ETSC, 2011, Tackling Fatigue: EU Social Rules and Heavy Goods Vehicle Drivers.



unbroken driving hours, including daily, weekly and monthly limits for all classes of driver. As a rule of thumb, no driver should be required to drive continuously for more than 2 hours without at least a 15-minute break²⁶. Breaks and break locations should be planned for in advance of starting journeys. (See part VI)

4.2 The EU Working Time Directive

Directive 2002/15/EC lays down minimum requirements with regard to the organisation of the working time for all people performing mobile road transport activities, including self-employed drivers, in order to improve road safety, health and safety of drivers, and prevent distortion of competition. This Directive applies to vans heavier than 3.5 tons²⁷.

4.3 Compulsory initial and periodic training for EU professional drivers

The legislation on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers (Directive 2003/59/EC) requires EU professional drivers to follow a prescribed training syllabus. Driver training should be part of an integrated approach to risk assessment by an employer with the aim of improving the safety of their operations. ETSC advocates the extension of driver training under the CPC to van drivers²⁸. Very often the vans are driven by employees for whom driving is not the main activity in the company (postal workers, technicians, engineers, movers) but who have to drive on a daily basis, spending as much as half of their working time on the road. Usually these employees do not receive any special training and can get behind the wheel of a van if they hold a valid B driving licence. Young driver and van familiarisation training should be a part of employee induction and training programs.

A recent Spanish study has found that the crash involvement (excluding “solo” crashes) of van drivers with less than six years of driving experience is 80% higher than the crash involvement of van drivers with more than 10 years of experience²⁹.

²⁶ RoSPA, 2002, Safer Journey Planner.

²⁷ Ibid.

²⁸ ETSC, 2012, Fit for Road Safety: From Risk Assessment to Training.

²⁹ MAPFRE Foundation, 2014 (forthcoming), Dossier sobre seguridad de las furgonetas en España.

4.4 Roadworthiness legislation

According to EU legislation³⁰ periodic testing should be the main tool to ensure roadworthiness of the vehicle. As a minimum requirement, vans should first be checked four years after the date on which the vehicle was first registered, and thereafter every two years³¹. Due to their regular and intensive use mainly for commercial purposes, vans are additionally subject to ad hoc technical roadside inspections. Another requirement will be that Member States will have to check a certain percentage of the number of registered commercial vehicles every year.

4.5 Type approval regulation

COM regulation No 678/2011 amending Directive 2007/46 includes some criteria (loading space) to help distinguish the vehicle characteristics of passenger cars and vans. This will limit the overlap between passengers and vans by helping to categorise correctly the type of vehicles. The EU should now define revised vehicle categories with clear guidelines for associated vehicle masses.

4.6 Speed limiters and Intelligent Speed Assistance (ISA)

Speed limiters help the driver abide by the appropriate speed by limiting the speed of the vehicle. This is already being done in respect of international upper speed limits for HGVs and buses. Corresponding action is needed for vans³². Speed limiters do not currently have the more advanced function to adapt the maximum speed to the prevailing conditions, as does Intelligent Speed Assistance (ISA). ISA is an Intelligent Transport System (ITS) which warns the driver about speeding, discourages the driver from speeding or prevents the driver from exceeding the speed limit³³.

EC Directive (92/24/ECE) requires speed limiters on HGVs over 12 tons and buses manufactured after 1 January 1988; the specified limits are 90 and 100 km/h, respectively. The Directive has since been extended to vans (over 3.5 tons), and passenger vehicles (with more than 9 seats) (ECE 2004/11). Research showed the side benefit of a positive effect on emissions and fuel consumption through prevention of over-speeding³⁴.

92/24/ECE requires speed limiters to be generally resistant to tampering and not to be adjustable while the vehicle is in motion. However, the illegal modification of speed limiters to allow higher speeds continues to be a problem³⁵. This is a further reason speed management good practice by drivers is so essential. Speed limiters do nothing to reduce speeding on roads with speed limits below the limiter's setting, nor on downward slopes steep enough to cause free rolling³⁶.

A study³⁷ published by the European Commission in 2013 recommended the introduction of speed limiters with ISA on safety grounds³⁸. Speed limiters for vans have also been used by some companies and have been reviewed in the first ETSC PRAISE Thematic Report³⁹. The European Commission is currently revising its General Safety Regulation 2009/661, and this is an opportunity to introduce ISA technology to vans.

³⁰ Directive of the European Parliament and of The Council on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC.

³¹ In the UK vans are checked (MOT) at three years on anniversary of registration and then on an annual basis. The FTA Van Excellence group recommends that all vehicles should be inspected / serviced annually as a minimum requirement irrespective of manufacturers suggested timescales.

³² ETSC, 1995, Reducing Traffic Injuries Resulting from Excess and Inappropriate Speed.

³³ ETSC, 2013, Intelligent Speed Assistance FAQs.

³⁴ OECD, 2006, Speed Management.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Transport and Mobility Leuven, 2013, Final report - Evaluation study on Speed Limitation Devices.

³⁸ Ibid.

³⁹ ETSC, 2009, How can In-vehicle Safety Equipment improve road safety at work?



INTELLIGENT SPEED ASSISTANCE – EU DEVELOPMENTS

The European Commission's Road Safety Policy Orientations 2011-2020 recognised that: "Technological developments, such as in-vehicle systems providing real-time information on prevailing speed limits could contribute to improve speed enforcement."

A new study⁴⁰ has been published focusing on the safety benefits of speed limiters and ISA for commercial vehicles. It includes the results of a survey aimed at assessing opinions at the European level. The general purpose is to provide the European Commission with an evaluation of the road safety effects of the application of the Speed Limitation Devices Directive (2002/85/EC) to commercial vehicles.

The main policy recommendations of relevance to vans in this study are:

- To further explore options for improving the effectiveness of the Speed Limitation Directive, in particular by:
 - requiring all commercial vehicles to be equipped with a 'voluntary' type of ISA (i.e. that provides tactile feedback to the driver);
 - requiring speed limiters for LCVs (N1 vehicles and possibly also a subset of M1 vehicles, see next bullet);
- To investigate how commercially used M1 vehicles could be covered by the legislation and what vehicle parameters could be used to distinguish them from other M1 vehicles;
- Ex-post evaluation on the installation and use of speed limitation devices;
- To further investigate options for including all or subsets of N1 vehicles, and in the case of subsets of N1 vehicles, to investigate how such a subset could be defined;
- To set up a monitoring system for analysing the impacts of (amendments of) the Speed Limitation Directive.

4.7 Risk assessment of the van and driver

Risk assessment by employers of van transport should answer basic questions such as:

- What journeys have to be taken by our van drivers?
- What types of vans do we have?
- Who are they driven by?
- Where are they driven?
- What type of drivers do we have?
- How long have they been driving?
- What are we asking them to do in addition to driving?

⁴⁰ Transport and Mobility Leuven, 2013, Final report - Evaluation study on Speed Limitation Devices.

The driver needs to be checked but so does the supervision and management level. The risk assessment should identify Key Performance Indicators (KPIs) which should be monitored and evaluated. One simple way of reducing risk is simply by cutting the amount of driving that employees have to undertake⁴¹.

The European Framework Directive 89/391/EEC on the Health and Safety of Workers⁴² requires every employer in Europe to undertake a risk assessment according to the principles of prevention. This also applies to employees travelling for work. Some Member States have supplementary legislation detailing employers' obligations to eliminate risks related to driving for work.

Specific to transport is the risk assessment of three key elements: the road user, the journey and the vehicle.

Organisations should look at implementing a new organisation of work such as integrating safety considerations into defining deadlines for delivery⁴³. Specific to the road transport aspects of risk assessment, Murray and Dubens⁴⁴ and Murray⁴⁵ suggested following a six-step approach to implement an assessment, monitoring and improvement program:

1. Review existing transport needs in the organisation using a detailed framework such as the Haddon Matrix, a fleet gap analysis or the ISO 39001⁴⁶. This should also be in line with the general principles of prevention as set out in the EU Health and Safety Framework Directive.
2. As a result of the assessment of the identified generic and specific occupational risks, managers, supervisors, driver assessors, work schedules, shop stewards and any other potential users must undertake the assessment themselves including assessing the tasks they must carry out as well as the skills they possess. This shows their commitment to safe driving and helps to sell the concept to the rest of the workforce, as well as learning how to use the system and the data outputs from it. This phase should be more than just "showing their commitment". The organisational structures should also be risk assessed. This organisational level is the most important one in safety as also set out in Directive 89/391/EEC Article 6.3a.
3. All existing drivers should then undertake the assessment again covering their tasks, possibly at one site initially, to build up a benchmarking database of existing company norms and standards.
4. The output must be used to identify the needs of existing staff and to set appropriate targets for all new drivers to achieve (Article 12 of 89/391/EEC Directive).
5. Utilise the assessment process for a range of pre-employment, current staff and other purposes (Article 12 of 89/391/EEC Directive).
6. Reassess to identify and evaluate improvements as per Directive 89/391/EEC Article 12.

⁴¹ Grayson, G. B. and Helman, S., 2011, Work related road safety: a systematic review of the literature on the effectiveness of interventions. Research report 11.3. Institute of Occupational Safety and Health.

⁴² 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.

⁴³ European Commission, 2005, Causes and Circumstances of Accidents at Work in the EU.

⁴⁴ Murray, W. & Dubens, E., Driver assessment including the use of interactive CD-ROMs, Paper presented at the 9th World Conference on Transportation Research, Seoul, 24-27 July 2001.

⁴⁵ Murray, W. 2004, The driver training debate. Roadwise: Journal of the Australasian College of Road Safety, Vol 14 (4), May 2004, pp. 3-5.

⁴⁶ ETSC, 2012, Work Related Management Programmes.



RECOMMENDATIONS TO THE EU

- Target van drivers with measures to tackle fatigue. This can be achieved through education, information and training about the dangers of driving when tired⁴⁷.
- Extend the current legislative framework for the Working Time Directive to van drivers.
- Extend the current legislative framework for professional driver training to van drivers, in the context of an integrated approach to risk assessment.
- Define revised vehicle categories with clear guidelines for vans.
- Introduce speed management technologies (including ISA) to vans.
- Extend the mandatory use of speed limiters (as exists for HGVs and Buses) to vans.



RECOMMENDATIONS TO EU MEMBER STATES

- Set up systems to enforce driving and resting hours of van drivers.
- Introduce professional training covering road safety to van drivers.
- Promote the uptake of speed management technology amongst van fleets.
- Introduce the Graduated Driver Licence (GDL⁴⁸), so that young drivers who work as professional van drivers will benefit from the advantages of this approach.

Example – bpost



bpost is the leading post operator in Belgium. With more than 25,600 employees, they are in charge of collecting, sorting, transporting and distributing letters and parcels. For this purpose, they use different vehicles such as trucks, vans, motorcycles, e-bikes and bicycles. With 6,215 vans, they daily cover 715,000 km. They have therefore taken a number of measures in order to limit the number of collisions.

The organisation has a basic driver test, eco-driving training but also made-to-measure training programmes provided by the Belgian Road Safety Institute (BRSI). Vans are equipped with a separation wall between the driver space and the load space. There are windows at the back of the vans to ensure that drivers can clearly see the traffic behind. Furthermore, no radio is installed, to limit distraction. Extra attention is paid to compliance with traffic regulations, the use of the safety belt and regular checks of the correct tyre pressure. In order to measure the driving behaviour and permanently improve road safety, several pilot projects such as a mirror regulation centre (adjusting the mirrors of the vehicle in order to reduce the blindspot) for small vehicles and the installation of data loggers have been carried out.

⁴⁷ ETSC, 2012, PRAISE Thematic Report on Fitness to Drive.

⁴⁸ ETSC's report on young people details GDL - http://archive.etsc.eu/documents/PIN_Flash_21.PDF.

4.8 National-level legislation and policy

Some EU Member State governments have taken action to improve work related road safety and a number of these have also specifically promoted van safety.

The United Kingdom

United Kingdom has introduced domestic legislation to regulate driving hours which also covers van drivers carrying both goods and passengers⁴⁹. For drivers transporting goods the rules include a daily driving limit of 10 hours a day and a daily duty limit of no more than 11 hours on any one day. There is also an obligation to record hours on a weekly record sheet or on a tachograph. The rules do not apply if you drive for fewer than four hours a day or are driving off public roads.

In addition to the official government guidance, the Freight Transport Association (FTA) set up an industry-led scheme called "Van Excellence". The scheme is centred on the Van Excellence Code, which aims to set demanding yet achievable standards for van operators⁵⁰. The code covers topics covered by this report including for example:

- Maintenance checks;
- Driver licencing;
- Fitness to drive;
- Speed limitation devices;
- Compliance with legislation in relation to speed limits.

Van Excellence works by inviting operators to register and seek accreditation to the standards of the code through an independent chargeable audit. The audit is performed against each heading in the Van Excellence Code and assesses the management and operational systems that are in place to achieve the given standards, rather than auditing individual vehicles or drivers (although spot checks on actual compliance may be carried out to verify management practices). Upon passing the audit, the organisation is enrolled and presented with a certificate. Audits are repeated annually but accreditation status will be reviewed in the event of serious deviation from the standards of the code. The FTA also runs courses targeting management on the standards included in the scheme⁵¹.

Spain

In 2014 the police launched a road safety initiative to enforce van safety. The target is to ensure vans comply with road safety laws and regulations. The Spanish Road Safety Strategy 2011-2020 shows a special commitment to reach consensus on the definition of vans and promote the standardisation and regulation of vans in the EU as well as to improve information on the van collision rate and traffic. In June 2014, 3,500 officers from the Guardia Civil traffic department focused on driving hours, weight, technical defects, load security, driver and vehicle documentation, the use of seatbelts and drink-driving. Of the 34,312 checked LCVs, 2,711 were found to be committing infractions, and excessive speeding was present in 889 cases. Information and awareness campaigns were initiated to generate safer conduct of LCV drivers, especially by providing them with guidelines on van loading and on load restraints. In parallel, as 41% of the van fleet in Spain is ageing, the Spanish Government decided to start the "Plan Pima Aire" Campaign, intended to promote and co-finance (38 million euro funding) fleet renewal efforts within SMEs and self-employed drivers.

⁴⁹ EGOV.UK, 2014, gov.uk website - Drivers' hours.

⁵⁰ The Van Excellence Code.

⁵¹ Van Excellence, 2014, Certificate of Excellence – Van Operators, Van Excellence website.

PART V

SAFER VEHICLES

5.1 Vehicle management

The choice of vehicles, including vans, has a critical role to play in influencing road safety and offers both opportunities and risks for safety⁵². As such, vehicle choice should be a central consideration in any organisation's work-related road safety programme. Vehicle management processes and initiatives should be developed in the context of the outcomes of a risk assessment.

Key aspects to be addressed under the heading of vehicle management include:

- Vehicle selection and specification;
- Additional safety equipment;
- Vehicle maintenance;
- Vehicle checks;
- Vehicle defects;
- Use of privately owned vehicles⁵³.

Vehicle management should address not only vehicles owned by the organisation, but also the grey fleet⁵⁴ and contract vehicles. There are additional concerns that need to be considered here. Employers should (through internal policies and/or contracting arrangements) ensure that such vehicles are 'fit for purpose': this means also that they should be in good roadworthy condition, maintained to a high standard and fully insured. This should also include ergonomic considerations relevant to the tasks the employee has to do in relation to driving. Regardless of ownership, employers could also specify minimum standards of vehicle safety features, such as maximum age, if they are being driven for work-related purposes.

5.2 Selection and procurement

At a basic level, those responsible for procuring vans in an organisation need to communicate closely with the safety function, relevant supervisory and management staff to ensure that the vehicle ultimately selected will be 'fit for purpose'. This means appropriate for the driver, ancillary staff, the work environment and the intended tasks. Organisations can influence road safety through four key van selection criteria:

- Protection of occupants in a collision;
- Capability to avoid or mitigate collision;
- Protection level given by the vehicle for unprotected road users;
- Vehicle's compatibility with other vehicles⁵⁵.

⁵² ETSC, 2012, Work Related Road Safety Management Programmes.

⁵³ Ibid.

⁵⁴ The term grey fleet refers to employees using their own vehicles for work-related travel.

⁵⁵ ISO International Standard ISO 39001, 2013, Road traffic safety (RTS) management systems – Requirements with guidance for use.

These issues should be considered at the procurement stage in the context of the nature of the business, typical vehicle-related operations and the type of vehicle required. To date EuroNCAP has tested the safety of passenger vans but has yet to test the safety of vans transporting goods⁵⁶. Employers should refer to EuroNCAP ratings before buying passenger vans. Moreover if employers have a large fleet, such as, for example, British Telecom, they can also use their purchasing power to influence vehicle safety design⁵⁷.

Employers should be aware of the various types of vehicle technologies on the market that can assist with risk management and should include the most appropriate of these as standard requirements when purchasing or leasing vehicles. It is important to select vehicles that are suitable and safe for employees and the type of trips they are expected to undertake, as well as considering body style, ergonomics, equipment and visibility to ensure the selected vehicle is fit for purpose⁵⁸.

5.3 Inspection and maintenance

Organisations should ensure that processes are put in place for regular inspection, maintenance and repair of vans as it is their responsibility to ensure roadworthiness at all times.

A study looking at collisions resulting in deaths involving vans found that of the 314 vans involved in these collisions, 37 (12%) of the vehicles had 54 defects. In twelve of these collisions (32%) it was considered that the vehicle defect had contributed to the collision⁵⁹. Eight vehicles were judged to have contributory tyre defects, three had brake defects and there was also one collision where the wing mirror had been incorrectly repaired⁶⁰. The experts commented that the defects were not strongly related to the age of the vehicle, with most arising from negligence with respect to maintenance⁶¹. At a minimum, maintenance regimes required by law⁶² and those recommended by vehicle manufacturers need to be adhered to and more regular pre-drive checks by drivers should also be required.

Guidance from the Health and Safety Executive in the UK suggests that the following questions need to be answered by organisations when assessing whether or not their vehicles are maintained in a safe and fit condition:

- Do you have adequate maintenance arrangements in place?
- How do you ensure maintenance and repairs are carried out to an acceptable standard?
- Is planned/preventative maintenance carried out in accordance with manufacturers' recommendations?
- Do your drivers know how to carry out basic safety checks?
- How do you ensure that vehicles do not exceed maximum load weight?
- Can goods and equipment which are to be carried in a vehicle be properly secured? eg loose tools and sample products can distract the driver's attention if allowed to move around freely.
- Are windscreen wipers inspected regularly and replaced as necessary?⁶³



⁵⁶ Euro NCAP, 2012, Press Release "Euro NCAP tests the safety of business and family vans".

⁵⁷ Wallington, D. , Murray, W. et al, 2014, Work-related road safety: Case Study of British Telecommunications (BT).

⁵⁸ ETSC, 2012, Work Related Road Safety Management Programmes.

⁵⁹ Smith & Knight, 2005, in FTA (2008) A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Directive of the European Parliament and of The Council on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC.

⁶³ Health and Safety Executive, 2014, Driving at work Managing work-related road safety.



Joint guidance issued in Ireland by the Health and Safety Authority, An Garda Síochána (Police) and the Road Safety Authority since 2009 recommended daily driver walk around checks for cars, vans⁶⁴, buses and HGVs in an advisory capacity⁶⁵. A suite of resources was developed including posters for each vehicle type, corresponding sample checklist forms, guidance sheets⁶⁶ and short instructional videos to help employers, employees and the self-employed understand why it is important to check one's vehicle every day or before every shift to ensure it is safe and fit for work. The guidance also explains how to carry out the safety critical checks and suggests a routine approach. Since 2013 the requirement to carry out pre-drive walk around checks under Irish law is now a mandatory requirement for commercial vehicles including vans, buses and HGVs. The guidance resources are available to download from the HSA website⁶⁷. This is part of an ongoing joint national program⁶⁸ to influence a sustained reduction in the numbers of people killed, injured and suffering ill-health as a result of work related vehicle activities, including driving for work.

Maintenance should also be regularly assessed to ensure it is of an appropriate high standard and to ensure approved replacement parts are used on vehicles, particularly for safety-critical elements such as brakes and tyres⁶⁹. Tyre pressure monitoring systems to help identify deflated tyres should also be extended to vans, they were required for passenger cars as part of the EU General Safety Regulation 2009.

Part of the van maintenance procedures should include carrying out vehicle checks as part of the daily driving routine. It is important to fully clarify what the organisation regards as fundamental defects under which a vehicle should not be used. In deciding if a vehicle is fit for use a range of factors should be considered including its suitability for the job, its condition, ergonomic factors and required safety equipment⁷⁰. The Road Safety Authority and Health and Safety Authority in Ireland have devised a sample 'Daily Work-related Road Vehicle Checklist'⁷¹ as a simple tool to assist drivers in this regard.

The European Agency for Safety and Health at Work have also produced a useful summary factsheet on this topic that suggests using the word 'POWER' as a way of helping drivers to remember necessary basic checks that are required. This stands for Petrol, Oil, Windows, Electrics, and Rubber⁷².

⁶⁴ Health and Safety Authority Ireland, 2012, Van daily vehicle pre checks information.

⁶⁵ Road Safety Authority Ireland, Vehicle Safety Checks Video.

⁶⁶ Health and Safety Authority Ireland, 2010, Van & LGV Driver Walkaround Checks – Poster.

⁶⁷ Health and Safety Authority Ireland, Vehicle Safety Pre-Checks Information – Videos.

⁶⁸ Health and Safety Authority Ireland, Managing Risks from Vehicles at Work.

⁶⁹ ETSC, 2012, Work Related Road Safety Management Programmes.

⁷⁰ Health and Safety Authority Ireland and Road Safety Authority Ireland, Safe Driving for Work CD-ROM.

⁷¹ Health and Safety Authority Ireland, 2013, Daily Work Related Road Vehicle Checklist.

⁷² EU-OSHA, 2011, E-fact 56: Maintenance and work-related road safety.

Example - Iron Mountain- Specific Driver Vehicle Check



Iron Mountain is a global information storage and management solutions company. It helps organisations around the world reduce the risks associated with storing, protecting and managing company information. It operates 190 vans and 140 HGVs in the UK and Ireland. Iron Mountain has developed a specific driver vehicle check which is van specific. The daily check starts with a pre-check asking questions on, for example, holding the correct driving licence and asking if the driver feels fit and healthy enough to operate the vehicle. The second phase covers technical issues such as lights, brakes, doors, mirrors and mileage. The driver also has to check the vehicle for damage and record this on an image sheet. Iron Mountain also has a weekly supervisor vehicle audit where vehicles are fully inspected by the line manager. The objective is to monitor every vehicle at least once a week and document any defect/damage/condition issues. This acts as a 'policing' method for driver checks.

Example - British Telecom - Birthday Process



British Telecom has approximately 39,000 cars and light commercial vehicles driven mainly by engineers and managers. In 2006, BT introduced an annual 'Birthday Process' for all existing vehicles. This documents a detailed safety inspection which takes place at least once a year, over and above the normal daily and weekly vehicle checks undertaken by drivers. This process ensures that a minimum standard for vehicle specification, purchase, checking, monitoring, inspection and maintenance is achieved⁷³. At British Telecom all new engineers have to go through driving training sessions despite the fact that this is not their main profession. This is necessary because, at present, the EU Certificate of Professional Competence directive does not cover van drivers.

⁷³ Wallington, D. , Murray, W. et al, 2014, Work-related road safety: Case Study of British Telecommunications (BT).



RECOMMENDATIONS TO EMPLOYERS

- Develop policies and procedures for the management of vehicles;
- Include safety criteria when purchasing vehicles and vehicles using in-vehicle safety technologies;
- Communicate the purpose of vehicle safety technologies to employees (safety is for their own protection and wellbeing) and train them to use equipment properly;
- Work closely with suppliers, equipment manufacturers, insurers and customers to develop appropriate safety solutions;
- Only competent people should carry out maintenance and repairs on vehicles, by virtue of qualifications, skills and experience to carry out the required tasks;
- Maintenance should also be regularly assessed to ensure it is of an appropriate high standard and to ensure approved replacement parts are used on vehicles, particularly for safety-critical elements such as brakes and tyres.

5.4 Load securing

Load securing is the term used to describe loading, unloading and securing of goods in or on vehicles. Failing to safely secure loads may impact employers and fleet operators alike in several ways:

- Drivers, vehicle occupants, other road users, pedestrians and anyone who may be involved in loading and unloading the vehicle could be injured or killed;
- Unsecured loads or objects may fall from vehicles causing road obstructions, traffic disruptions and collisions especially if drivers swerve to avoid fallen items;
- Certain vehicle spillages may cause other vehicles to skid and lose control;
- Unrestrained goods may crash into the vehicle cab during emergency braking;
- Loads which have shifted may have to be manually removed from the vehicle which may increase the risk of an injury or a fall from the vehicle;
- Items falling out of vehicles at delivery sites causing injury and/or property damage;
- Unstable loads collapsing during transit or unloading resulting in damage to goods;



In 50% of all driving collisions caused by vans, the vehicle had been in an unstable condition before the collision.

Key principles of safe load securing for vans

Better management and specification of load containment and restraints can help to reduce the risks posed by loads carried in or on a vehicle in a collision⁷⁴. Risk assessments of vehicle load should be carried out to comply with the requirements of the Framework Directive 89/391/EEC on the health and safety of workers⁷⁵. An example of risk assessment of cargo tailored to vans, including a checklist, has been developed under the “Technical Reference on Cargo Restraint for Light Commercial Vehicles under Accident Conditions”⁷⁶. Incorrect loading either by over loading or unequal weight distribution in the van can affect its behaviour in a collision in terms of its braking performance. It is estimated that in 13% of all van accidents cargo is a contributory factor in the injuries (all severities) sustained by van occupants⁷⁷. Research has also found that unstable vehicle load also plays a role in the occurrence of single vehicle rural collisions⁷⁸. According to analysis of the German Accident Database (GIDAS), in 50% of all driving collisions caused by vans, the vehicle had been in an unstable condition before the collision⁷⁹. Wherever possible cargo should be restrained within the confines of the vehicle as this offers a number of benefits such as improving vehicle stability, and eliminates risk the cargo could pose to other road users⁸⁰.

“The basic principle is that the combined strength of the load restraint system must be sufficient to withstand a force not less than the total weight of the load forward, so as to prevent the load moving under severe braking, and half of the weight of the load rearwards and sideways⁸¹. Further detailed guidance specifically tailored for vans can be found under the “General Loading Recommendations” included in the “Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions”⁸².

Risks caused by unstable conditions can also be reduced by in-vehicle technologies such as Electronic Stability control (ESC) and/or lane departure warning systems⁸³. But ESC is only one aspect of the load securing equation. Loads must first be properly placed, constrained and restrained in the vehicle for transport. ESC assists a smoother ride once safe loading conditions are met pre-journey.

ESC will not mitigate for poorly or over loaded vehicles to any great extent. Experiments performed by DEKRA with a vehicle not equipped with ESC make it clear how great the influence of the positioning of the load is⁸⁴. The positioning of the load has a greater influence on the threshold velocity in the lane departure test than that of the mass of the load itself. This knowledge could, particularly with respect to the drivers of older vehicles (not equipped with ESC), help reduce the number of unsafe driving conditions. A specific point related to the manoeuvring of vans was also stressed⁸⁵: to raise awareness and training of the driver of the van and that his vehicle, when loaded, is not comparable to a passenger car, not in its general handling, and in particular not in critical situations. ESC has been included in all new vans through the EU’s type approval legislation since 2011. Built-in weighing scale technology can also help inform the driver if the van is over the weight threshold.

⁷⁴ FTA, 2008, A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁷⁵ 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.

⁷⁶ FTA, 2008, A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁷⁷ Ibid.

⁷⁸ SWOV, 2012, Delivery vehicle crashes: characteristics, crash scenarios and possible interventions; Results of an in-depth study into urban crashes involving delivery vehicles.

⁷⁹ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

⁸⁰ FTA, 2008, A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁸¹ UK Department for Transport, 2002, Safe Loading of Vehicles.

⁸² FTA, 2008, A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁸³ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

⁸⁴ Berg, F. A., Niewöhner, W., Egelhaaf, M., Rücker, P., 2004, Sicherheit von Transportern – Erkenntnisse und Empfehlungen der DEKRA-Unfallforschung. VDA Technischer Kongress 2004, 23./24. März 2004, Rüsselsheim, Tagungsband, S. 167-179.

⁸⁵ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

Cargo safety inside the vehicle: separation

It is crucial to have proper separation between the vehicle load area and the van driver. In the case of closed vans where the cab is an integral part of the body, a suitably rated bulkhead must be fitted between the load compartment and the cab. Such a bulkhead should afford adequate protection to cab personnel and should be designed to resist a uniformly distributed horizontal force of at least half the weight of the load⁸⁶. Purpose built restraining devices should only be used in the manner approved by their manufacturers⁸⁷. Any loose items such as tools or mobile phones in the front cab must be safely stowed in the glove compartment or using special-purpose lockers, racking or restraints systems⁸⁸.



RECOMMENDATIONS TO EU MEMBER STATES

- Promote the application of the European Best Practice Guidelines on Cargo Securing and adapt their principles to van safety;
- Dedicate resources to adequate enforcement of load securing safe practices;
- Prioritise load securing in EU roads policing and vehicle enforcement programs and protocols;
- Target load securing in cross border traffic enforcement operations;
- Introduce logistics plans for urban areas that only allow loading and unloading at times when there are few vulnerable road users on the road;



RECOMMENDATIONS TO EMPLOYERS

- Carry out comprehensive risk assessment of current loading, unloading and load securing practices relating to the van fleet;
- Develop clear policies and procedures on safe load securing practices for the van fleet;
- Provide instruction, information and training to relevant staff involved in driving, loading, unloading and securing goods in vans to ensure compliance with legal and moral duty⁸⁹;
- Ensure with employees that the cargo they carry on their vehicles is safely contained and restrained and in accordance with any training or instructions provided by their employer⁹⁰;
- Ensure that closed vans are fitted with a partitioning system to separate the driver/passenger compartment area from the load compartment area⁹¹.

⁸⁶ UK Department for Transport, 2002, Safe Loading of Vehicles.

⁸⁷ Ibid.

⁸⁸ FTA, 2008, A Technical Reference on Cargo Restraint for Light Commercial Vehicles Under Accident Conditions.

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Ibid.

Vans are almost one and a half times more likely to be involved in a collision while reversing compared with all other vehicles.

5.5 Reversing

Vans are almost one and a half times more likely to be involved in a collision while reversing compared with all other vehicles according to a recent UK study⁹². Annually, an average of 470 van drivers were involved in injury collisions involving reversing from 2008-2012. Reversing is also one of the main contributory factors attributed to van driver errors, which is the same as for other drivers (Police attended injury collisions 2008-2012)⁹³.

A proactive approach should be taken to tackle reversing safety. This should apply a range of appropriate interventions including: management (analysis and review), site (risk assessment), driver (assessment and training) and vehicle-based (reversing cameras and alarms). A reversing audit should be undertaken including the use of reverse collision warning systems.

A specific gap analysis table⁹⁴ of reversing has been developed for use⁹⁵. Studies made in driving simulators indicate that the reverse collision warning system could also help the driver to react more quickly⁹⁶. The early warning system reduced the number of collisions by 81 % and the late warning system reduced collisions by 50%.



RECOMMENDATIONS TO EMPLOYERS

- Carry out risk assessment of all reversing activities involving the van fleet to establish whether reversing can be eliminated or minimised;
- Develop and adopt measures to avoid and limit reversing activities associated with the van fleet;
- Consider the specification of appropriate auxiliary warning/visibility/camera devices to reduce reversing-related risks for the new and existing van fleet;
- Adopt measures to avoid reversing during delivery and collection and parking activities.

⁹² Road Safety Analysis for Axa, 2014, Van Crashes in Great Britain.

⁹³ Ibid.

⁹⁴ The comparison of actual performance with potential or desired performance.

⁹⁵ Murray, W., 2014, Reversing/Backing Safety Gap Analysis and Risk Assessment for Fleets.

⁹⁶ Lee, J.D., McGehee, D.V., Brown, T.L., Reyes, M.L., 2002, Collision warning timing, driver distraction, and driver response to imminent rear-end collisions in a high-fidelity driving simulator. Human Factors 44 (2): 314-334 Sum 2002.

Example – British Telecom - 'Back in Control'



British Telecom has approximately 39,000 cars and light commercial vehicles driven mainly by engineers and managers. As major incidents have declined at BT, it now targets minor incidents, and has designed its training to address rear-end shunts and issues such as car park hits. BT runs short-duration slow speed manoeuvring-behind-the-wheel courses called 'Back in Control' which also cover reversing.

5.6 Tailgating

Vans are disproportionately more frequently involved in rear-end collisions in which the van hits a car, in collisions where priority is not given at crossroads, in single-vehicle collisions, and in collisions on 100 km/h and 120km/h roads⁹⁷. Alongside increasing awareness about the importance of keeping distance, in-vehicle technologies can also help. These include autonomous cruise control (also called adaptive cruise control) which automatically adjusts the vehicle speed to maintain a safe distance from vehicles ahead. Advanced Emergency Braking Systems (AEBS) can also help prevent tailgating as it employs sensors to alert the driver when a vehicle is too close to the vehicle in front. If the driver does not react in time, the system automatically triggers emergency braking to prevent or reduce the impact of a collision. AEBS has an estimated death reduction rate of 7% and one of the highest cost-benefit ratios there is for driver support systems⁹⁸. AEB was introduced to heavy vehicles types in the 2009 General Safety Regulation and should now be extended to vans.



RECOMMENDATIONS TO THE EU

- Support the extension of the EuroNCAP scheme to vans for the transport of goods;
- Extend AEBs to vans within the revision of the General Safety Regulation.

⁹⁷ Bos & Twisk, 1999; Schoon, 2001 in SWOV (2010) SWOV Fact Sheet Lorries and Delivery Vans.

⁹⁸ eIMPACT Project Results http://www.eimpact.eu/download/eIMPACT_D6_V2.0.pdf.

PART VI

ACTIVITY PATTERNS: JOURNEY PLANNING, FATIGUE AND STRESS MANAGEMENT

This next section will present the importance of promoting overall health and wellbeing amongst van drivers, focusing on the need to tackle fatigue and stress. It will also look at journey planning as one of the solutions for managing both. Employers should have clear policies and procedures in place to manage driver health issues. This may include occupational health screening programmes and workplace health promotion activities. Drivers should report to work fit for all work activities including driving duties. If they are not fit for work, it is their responsibility to inform their manager. A driver's physical health, psychological and emotional state and general attitude towards driving play a major part in fitness to drive. Drivers should tell their employer about any health issue or personal circumstances that may affect their driving (indeed employers may require this).

A European survey on stress indicated that the steepest growth in the number of employees under acute work-related stress was in the transport and communication sector.

6.1 Preventing stress

Drivers have to work under time pressure in a highly competitive environment providing a broad spread of tasks required by clients⁹⁹. A European survey on stress indicated that the steepest growth in the number of employees under acute work-related stress between 1995 and 2000 was recorded in the transport and communication sector: from 27.2% to 36.9%¹⁰⁰. Such conditions are of course undesirable in themselves, but can also lead to collisions resulting in material damage or casualties.

All organisations need to consider work-related stress and psychosocial risks¹⁰¹. 50–60% of all lost working days can be attributed to work-related stress¹⁰². According to EU OSHA, involving everyone in promoting a good psychosocial work environment is key¹⁰³. In line with the principles of prevention, being proactive and having a plan in place to pre-empt problems is the most effective way to manage psychosocial risks in the workplace. The risk assessment model (see part 4.7) can be readily applied to managing work-related stress. EU OSHA points to experience which shows that by the time work-related stress and ill health and absenteeism are increasing, productivity and innovation are already declining, and there will be a significant impact on business performance¹⁰⁴.

⁹⁹ Eurofound European Foundation for the Improvement of Living, 2004, EU road freight transport sector: work and employment conditions.

¹⁰⁰ Eurofound European Foundation for the Improvement of Living and Working Conditions 1997 and 2001.

¹⁰¹ Psychosocial risk is the risk of detriment to a worker's psychological or physical well-being arising from the interaction between the design and management of work, within the organisational and social context (Cox and Griffiths, 2005). In EU OSHA 2013 Cost of Work Related Stress.

¹⁰² EU OSHA, 2014, Facts and figures about stress and psychosocial risks.

¹⁰³ EU OSHA, Healthy Workplaces Website.

¹⁰⁴ Healthy Workplaces, 2014, Campaign Guide.



In Ireland the Health and Safety Authority, An Garda Siochana (Police) and the Road Safety Authority have recently jointly published 'Driving for Work Driver Health Guidelines'¹⁰⁵. The aim of these guidelines is to make working drivers more aware of the main health issues that may affect them and, consequently, to improve their ability to drive safely. Driving by its nature is not the healthiest occupation as long periods are spent seated in the same position with little or no opportunity for physical activity. The information will help drivers look after and improve their health. The guidelines include a brief description of the most common health issues affecting working drivers with details of websites with more comprehensive information on each topic.



To support van drivers the German Social Accident Insurance Institution for Transport and Traffic (BG Verkehr) offers a specific training course suited to the specific problems of van drivers. During a two day seminar with theoretical input and practice exercises the driver learns to recognise the stress and dangers of everyday life better and to develop strategies for the prevention and management of these situations with the aim to avoid and reduce them¹⁰⁶. The topics covered:

- Demand and work burden posed by daily routine;
- Stress on the road;
- Load securing;
- Driving experience in the van.

6.2 Fatigue: the scale of the problem

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 collisions¹⁰⁷. A recent investigation in the UK found that van drivers are over-represented, compared to all other drivers, as being fatigued in collisions. Increased collision risk occurs at night (peak levels at night can be 10 times daytime levels), on longer working days, and with irregular hours. Fatigue factors that have been shown to influence road safety need to be better controlled by regulation and risk management. The most important factor that will ensure safety is to effectively implement and enforce regulation. An employer's 'safety culture', which integrates fatigue policy across its supply chain, can support compliance with existing EU legislation.

The earlier ETSC PRAISE Thematic Report 3 focuses on managing fatigue in the work-related context in more detail¹⁰⁸.

6.3 Journey management and planning

Workloads are increasing and drivers face escalating pressures, for example pressures from clients to deliver faster and more cheaply, with issues such as 'just-in-time management', increased traffic, remote monitoring and working irregular and long hours¹⁰⁹. Drivers can be over-stressed by the demands placed on them to deliver goods to meet the schedules of modern transport systems and the impact of elaborate subcontracting chains. If they fail to meet such schedules the transport operator may have to compensate the client for delays incurred. This situation encourages certain drivers to flout the rules in relation to rest times so that they can deliver on time and remain competitive¹¹⁰.

¹⁰⁵ Health and Safety Authority Ireland, 2013, Driving for Work- Driver Health Guidelines.

¹⁰⁶ Van Driver Qualification, BG Verkehr.

¹⁰⁷ Road Safety Analysis for Axa, 2014, Van Crashes in Great Britain.

¹⁰⁸ ETSC, 2010, Fitness to Drive.

¹⁰⁹ EU OSHA Website.

¹¹⁰ See recent article in Die Zeit „Deutsche Post Weniger ist Leer“: <http://www.zeit.de/2014/18/post-dumpingloehne>.

Van drivers are 14% more likely than drivers of other vehicles to be involved in a collision in the first four days of the working week.

At the organisational level managers and human resource staff within organisations should work to ensure that current employment contracts, shift patterns and work schedules do not contribute to driver fatigue and stress. As a minimum, work patterns and journey schedules must enable drivers to stay within the law. In Germany, compared to other sectors, transport workers have less own-responsibility: 34.1 % never or seldom plan and organise their work. They also have less influence on the amount of work: 59.4 % of transport workers seldom or never decide compared to 41.3 % in other sectors¹¹¹.

All employees who drive for work can utilise journey planning to help ensure that their speeds are appropriate. Ensuring that journey schedules, distances and plans allow sufficient time for drivers to complete their journeys (including delivery stops, rest breaks and foreseeable weather and traffic conditions) safely is critical. Companies should require those responsible for journey planning (line managers or drivers themselves) to plan journeys taking account of road type (for example, collision rates are lowest on motorways and dual carriageways), hazards (road works, accident 'hot spots'), traffic densities (time journeys to avoid peak traffic hours) and high-risk features such as schools or busy shopping centres¹¹². With better logistics-planning employers should consider introducing buffer times in the supply chain: the drivers are thus relieved from time pressure and can concentrate more on safety and energy-saving issues¹¹³.

A British study revealed that in the UK the collision-involvement rates are higher on weekdays, although with a noticeable different trend on Fridays which is lower than Monday to Thursday. Van drivers are 14% more likely than drivers of other vehicles to be involved in a collision in the first four days of the working week. Monthly trends show little if any difference to all other drivers although hourly rates are significantly changed. Mornings (6 am – 12 noon) show collision-involvement rates over a third higher than for other vehicles¹¹⁴.

Example - ASDA - Journey planning led by management

ASDA operates 550 UK supermarkets, employing 180,000 workers. One of the fastest growing areas of the business is home shopping with revenues increasing almost three fold between 2010 and 2013, operating from 200 or more stores and three regional home shopping fulfilment centres. It has reduced incidents from 93 per million miles in 2008 to 54 in 2012, halving its incident rate from six to three per £1,000,000 of sales revenue. In line with its business growth, the van fleet has expanded from approximately 1,000 in 2008 to 1,800 in 2013. ASDA has built road safety into the organisation through management coaching and events. One example is a short film¹¹⁵ developed for its management community to reinforce the importance of managing time and pressure and still maintaining high levels of safety.

6.4 Workplace Health Promotion (WHP)

Improving the health and well-being of employees is of paramount importance for employers and can play a significant role in reducing the road risks of van drivers¹¹⁶. It is thanks to general well-being and healthy lifestyles that major risk factors such as fatigue, addiction to alcohol or illegal drugs or medicines and stress can be avoided. WHP encompasses everything done by employers, their employees, and society to improve the health and well-being of people at work. Here are some examples of a few WHP measures that employers can offer:

¹¹¹ EU OSHA, 2011, OSH in Figures Occupational Health and Safety in the Transport Sector.

¹¹² RoSPA, 2002, Safer Journey Planner.

¹¹³ ETSC, 2011, Driving for Work: Managing Speed.

¹¹⁴ Road Safety Analysis for Axa, 2014, Van Crashes in Great Britain.

¹¹⁵ Film from Asda – Case Study.

¹¹⁶ ETSC, 2010, Fitness to Drive.

- flexible working times;
- healthy canteen food;
- eyesight tests;
- heart health checks;
- diabetes screening;
- sport and relaxation classes;
- courses on social competence like dealing with stress.

WHP requires a commitment from employers and employees¹¹⁷, and as with every safety endeavour WHP works best when it is part of a safety culture endorsed at all levels of an organisation, starting with senior management. Research shows investment in WHP yields a return on investment of one to 2.5 – 4.8 in reduced absenteeism costs¹¹⁸.



RECOMMENDATIONS TO EU MEMBER STATES

- Make employers aware that driver health and wellbeing should be considered as part of driving for work risk assessment under Directive 89/391, and promote WHP as a workplace-centred tool to tackle ill-health;
- Promote the business case for WHP to employers;
- National health and safety strategies should include measures to combat the health risks associated with road transport, for professionals in the road transport sector in particular.



RECOMMENDATIONS TO EMPLOYERS

- Be aware of any medical conditions that may preclude a person from holding a licence or temporarily causing a person to not be fit to drive for work;
- Require employees to report on any medical condition, temporary or otherwise that might affect ability to drive a vehicle safely;
- Include procedures relating to driver health as part of driving for work safety management policy;
- Require medical examinations when employing new staff, and periodical examinations for existing staff who drive for work;
- Implement WHP measures in the workplace (see list above).

6.5 Employer-level initiatives

Employers, especially transport companies, are encouraged to ensure that prevention measures are incorporated in their operations to tackle driver fatigue. This can be done in many ways such as applying strict internal policies (including maximum driving hours or distances allowed while on duty), or providing information to their employees and drivers about the risks associated with driver fatigue and the ways to tackle it. Telematic systems can also be used by employers to record and maintain a record of an individual's driving hours. This can enable companies to adopt and enforce internal policies on working hours for all their drivers, irrespective of which type of vehicles they drive.

¹¹⁷ U OSHA, 2010, OSH in figures - Occupational Safety and Health in the Transport Sector.

¹¹⁸ Kreis, J. and Bodeker, W., 2004, IGA Report 3e Health-related and economic benefits of workplace health promotion and prevention.



RECOMMENDATIONS TO THE EU

- Develop guidelines for employers in order to avoid work schedules and journey planning which would lead to stress, fatigue or sleepiness.



RECOMMENDATIONS TO EMPLOYERS

- Written guidelines on preventing driver fatigue should be included in the health and safety management policy and driver handbook;
- Limits should be set on acceptable driving durations and distances through consultation with employees;
- Drivers must be made aware of the dangers of fatigue and advised on strategies to manage it, for example the need to get an adequate amount of good quality sleep before starting to drive, and telling drivers to take a 15 minute break every 2 hours (journeys should therefore be planned accordingly to allow for that);
- Ensure that current shift patterns, journey planning, employment contracts and work schedules do not contribute to driver fatigue and stress and putting employees under time-management pressures. Minimum journey schedules, appointments and routes must enable drivers to stay within the law;
- Employees should be asked to report to their managers when their sleep may be interrupted, for example by having to care for young children or sick or elderly relatives at home during the night. It is also important that employees should report any specific medical conditions such as sleep apnoea which contributes to chronic fatigue. They should be reassured that this will not lead to discrimination;
- Reactive monitoring: drivers should be encouraged and thanked for reporting instances when they felt tired at the wheel, and collisions while driving for work should be investigated to determine whether fatigue may have been a contributory factor;
- Provide journey planning capabilities to facilitate realistic scheduling of trips and contribute to appropriate time management;
- In dealing with clients, avoid making any concessions that might adversely affect road safety, such as commitments to deliveries or completion of work packages that set unrealistic time constraints;
- Establish schedules, including those for sub-contracting chains, which allow drivers enough time to obey speed limits and avoid peak hours driving. These should be flexible and adaptable to changes such as the weather;
- Organise the travel of vehicles at places where there are less likely to be vulnerable road users such as cyclists and pedestrians;
- Promote use of technologies against fatigue (detection and warning).

PART VII

COMPLIANCE WITH KEY TRAFFIC SAFETY RULES

This next section looks at specific risk factors affecting van drivers, reviews available data and evidence relating to the impact of these risk factors on collisions and provides key recommendations to prevent van drivers from exposure to these risks.

There is some evidence to show that seat belt wearing rates amongst van drivers is lower than amongst other user groups.

7.1 Seat belts

Seat belts are a highly effective way of reducing deaths and injuries with lasting effects. According to the EU Directive 2005/39 there is a legal obligation to wear a seat belt. However, there are exemptions for certain user groups in specific circumstances which can be set at a national level. These include van drivers making deliveries where they are making frequent stops between 50m (UK) to 500m (Denmark). These country specific exemptions from the seat belt directive can be found on the European Commission's "Going Abroad" website¹¹⁹.

Seat belt wearing rates still vary greatly across Europe especially between front and rear seats, different user groups and between urban and rural areas. There is some evidence to show that seat belt wearing rates amongst van drivers is lower than amongst other user groups. This may be because in some countries van drivers are exempt in certain circumstances. According to a German study, the rate of seat-belt use is significantly lower in the case of van passengers when compared to passenger cars and on different road types¹²⁰.

According to the investigation undertaken within the German In-Depth Accident Investigation Database (GIDAS), the figure for front-seat passengers wearing seat belts in collisions is approximately 80%¹²¹. Another UK in-depth accident study found evidence of approximately one-third of drivers and almost half of passengers not wearing the seat belt at the time of the collision. In the collisions resulting in deaths 10 of the 13 drivers (77%) were not wearing seat belts¹²².

Measures to increase seat belt wearing include raising awareness amongst van drivers of the importance of wearing a seat belt, increasing levels of seat belt enforcement and seat belt reminders. Seat belt reminders detect occupants and their seat belt use in all seating positions, and then create a series of alarms to alert the car occupant if he or she is not belted. ECORYS calculated the cost-effectiveness for the introduction of seat belt reminders for vans to be 1.0¹²³.

¹¹⁹ European Commission, 2013, Going Abroad Website.

¹²⁰ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

¹²¹ Ibid.

¹²² Lenard, J. and Frampton, R., 2004, Accidents, Injuries and Safety Priorities for Light Goods Vehicles in Great Britain.

¹²³ ECORYS (2002) in SWOV, 2010, Factsheet for Lorries and Delivery Vans.



A campaign called “Did it click?” ran over six years in Germany, initiated by the German Road Safety Council (DVR) and the Statutory Accident Insurance in the Vehicle Operating Trades (BGF) organisation together with other partners including the automotive industry and the haulage sector. The campaign also targeted van drivers. It led to increases of seat belt wearing rates from 10% to 50% in non-urban areas according to Police and DEKRA traffic observation reports¹²⁴. The campaign was made up of personal communication with drivers at their rest stops on the roadside explaining to them the usefulness of wearing seat belts based on results from accident research. A roll-over simulator gave hands-on experience, and a film added additional information, especially on the compulsory use of seat belts for drivers. A leaflet and a sticker with the campaign logo were also handed to drivers¹²⁵.



¹²⁴ DVR, 2008, Aktion „Hat’s geklickt?“ bleibt in der Erfolgsspur.

¹²⁵ Information about the place of further demonstrations are given also on a campaign Website www.hatsgeclickt.de.



RECOMMENDATIONS TO THE EU

- Adopt legislation to ensure that every new vehicle has as standard equipment an enhanced seat belt reminder system for all occupants with audible and visual warnings.



RECOMMENDATIONS TO EU MEMBER STATES

- Support employers to fulfil their legal requirements to undertake a risk assessment. Provide information and training to fleet managers to inform them about the need to consider in-vehicle safety technologies (seat belt reminders) when purchasing or leasing vehicles;
- Provide guidance on how to conduct a fleet risk assessment, with supporting examples and case studies;
- Promote vehicle safety information, such as EuroNCAP results (especially the safety equipment rating) more widely and effectively so that they play a more prominent role in employer vehicle selection and fleet purchasing policies;
- Mandate the use of seat belts for van drivers without any exemptions for short delivery trips;
- Increase enforcement of seat belt wearing amongst van drivers;
- Include seat belt wearing as an offence within a penalty point system to demonstrate the risk associated with non use;
- Monitor seat belt wearing as part of regular safety audits on driving for work practices;
- Collect yearly rates of deaths per population and per km travelled of collisions involving vans;
- Collect and monitor average speed rates for all vehicle types;
- Monitor development of speed patterns (mean speed and 85th percentile) and publish regular overviews of changes for different road users;
- Collect quarterly rates of drink driving and rates of road deaths from collisions involving impaired van drivers according to SafetyNet recommendations¹²⁶;
- Collect yearly numbers of offences for the use of the mobile phone by van drivers;
- The police should collect information and investigate the influence unsafe loading has on collisions involving vans.



RECOMMENDATIONS TO EMPLOYERS

- Purchase vans with seat belt reminders for the driver and passengers and explain clearly the benefits of wearing seat belts in training and policies;
- Apply procedures and run programmes motivating drivers to comply with seat belt regulations.

¹²⁶ http://ec.europa.eu/transport/wcm/road_safety/erso/safetynet/content/safetynet.htm.

7.2 Speed

Van 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.

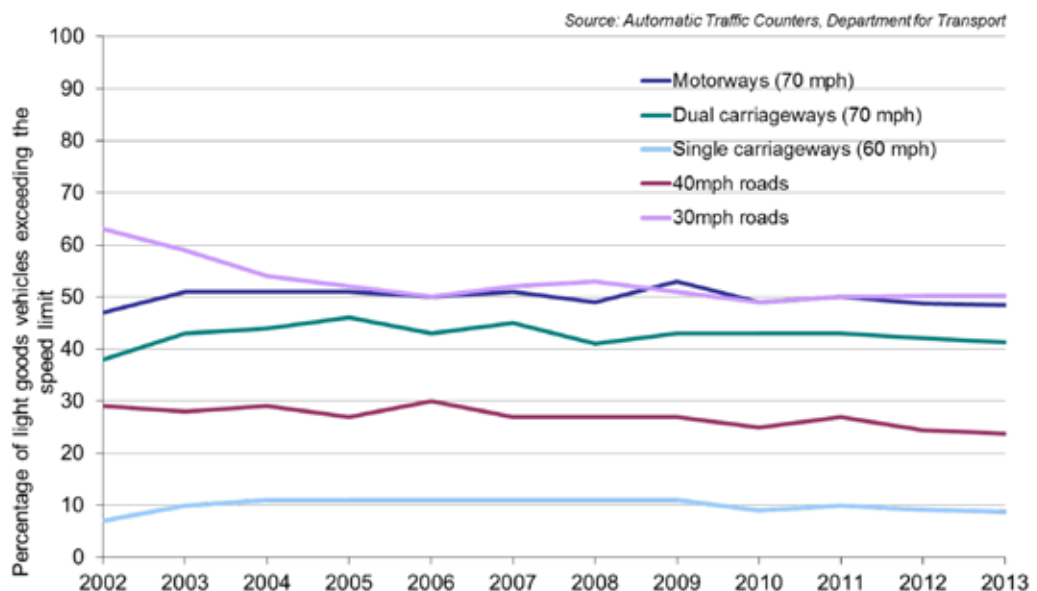


Speeding can be defined as driving in excess of legally set speed limits and/or driving at speeds which are inappropriate to the prevailing conditions. Speeding is the main cause of road traffic collisions, deaths and serious injury. Loss of control of the driving task, and thus potentially of the vehicle, arises when the demands of the driving task exceed the available capability of the driver. As speed increases the task demand rises and the driver's capability is reduced.

Employers have a clear responsibility to reduce incentives to speeding and to raise understanding of the serious consequences it can have¹²⁷. Van drivers must follow legal speed limits which are set at the same level as passenger cars throughout the EU^{128,129}. Van 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.

Exceeding the legally set speed limit is widespread. The ETSC PIN programme regularly evaluates road safety performance and found that, in countries where data on speed measurements in free-flowing traffic are available, up to 30% of all drivers exceed speed limits on motorways, up to 70% on roads outside built-up areas and as many as 80% in urban areas^{130,131}. According to a recently-completed study information on speed distribution for vans is only available for Finland and the UK¹³². The table below from Britain shows that there is still a high percentage of vans exceeding the speed limit by road category from 2002 to 2013¹³³. The highest levels of non-compliance are on motorways and on 30 mph roads. Levels of speeding of vans are very similar to cars.

Chart SPE0105c: Percentage of light goods vehicles exceeding the speed limit by road category in Great Britain, from 2002



¹²⁷ ETSC, 2011, Driving for Work: Managing Speed.

¹²⁸ European Commission, 2013, Going Abroad Website.

¹²⁹ There are exceptions – in the UK for example the speed limit on dual carriageways is set at 70mph for passenger cars and 60mph for vans.

¹³⁰ TSC, 2011, 5th Annual Road Safety Performance Index (PIN) Report.

¹³¹ The ETSC PIN report from 2010 gives information on the average speed and the percentage of speeders on different types of road for cars and vans, but it does not differentiate for van and car types.

¹³² Transport and Mobility Leuven, 2013, Final report - Evaluation study on Speed Limitation Devices.

¹³³ GOV.UK, 2014, gov.uk website - Vehicle free-flow speeds.

Vans are more likely to be involved in fatal and serious collisions than other vehicle groups.

A German study has found that collision data clearly reveal that there is a tendency by van drivers to cause collisions on rural roads compared to the drivers of passenger cars and that the cause is speed¹³⁴. Both the exceeding of the maximum permitted speed on rural roads as well as failure to adapt one's speed appropriately occur remarkably frequently when compared to the passenger car. Moreover, an examination of the severity of collisions in Great Britain shows that vans are more likely to be involved in fatal and serious collisions than other vehicle groups. In approximately one quarter of the road deaths where the driver of a van caused the collision, they were travelling above the speed limit – either the applicable speed limit for the vehicle class or the posted speed limit¹³⁵.

In Belgium a recent review of speeding by van drivers found that although they were not driving faster than passenger cars, one third were breaking the legal speed limit¹³⁶. The report recommends that employers increase driver awareness of the risks associated with speeding especially when they are transporting heavy loads and introduce speed limiters to their van fleets. It also recommends lower speed limits for vans and improving compliance.

In Spain, according to the Spanish official road collision annual report, 10% of van drivers involved in injury crashes in rural areas and 2% in urban areas were found speeding by the police¹³⁷.

Of relevance also to vans, the ETSC PRAISE Thematic Report 8 offers employers an insight into tackling speeding amongst employees driving for work¹³⁸. The second part focuses on management issues covering topics from journey planning to payment schemes. The third part of the report looks at what employers can do, from risk assessment of potential speeders to identification of training needs. The final part looks specifically at different speed management technologies which can also be a useful additional tool in managing speed. Clearly a policy mix is needed to effectively tackle speeding amongst van drivers and the aforementioned ETSC report aims to present recommendations to reduce speeding across the board amongst those who are driving for work¹³⁹.

Using telemetry to manage speed

The use of telematics to improve road safety in van fleets is increasing. Telemetry can monitor and record speed and provide employers with an opportunity to continuously monitor their employees driving and speed behaviour. This is particularly relevant to professional drivers and provides a means by which employers can identify speeding offences that may go undetected by national enforcers. Insurers can incentivise the use of such technologies by linking their use to insurance premiums. Employers can monitor driving in real-time and provide immediate feedback to drivers if their speed becomes inappropriate. The data can also be fed into broader risk-rating systems which combine on the road incidents with other information such as driving licence points to ascertain an overall risk-rating for individual drivers.

¹³⁴ BAST, DEKRA, UDV, VDA, 2013, Safety of Light Commercial Vehicles.

¹³⁵ ACTS, 2003, Speed Cameras: 10 criticisms and why they are flawed, PACTS & SSI, London, p4.

¹³⁶ Riguelle, F., & Roynard, M., 2014, Les camionnettes roulent-elles trop vite ? Mesure des vitesses pratiquées par les camionnettes sur les routes belges - 2013. Bruxelles, Belgique: Institut Belge pour la Sécurité Routière – Centre de connaissance.

¹³⁷ Dirección General de Tráfico, 2012, Anuario Estadístico de Accidentes.

¹³⁸ ETSC, 2012, Driving for Work; Managing Speed.

¹³⁹ Ibid.

Intelligent Speed Assistance (ISA) and speed limiters

Information regarding the speed limit for a given location is usually identified from an on-board digital map in the vehicle. Other systems use speed sign reading and recognition either using already built into the vehicle or aftermarket systems. Supportive systems have even greater potential to reduce fatal and serious accidents. Estimates by Carsten¹⁴⁰ show that a mandatory supportive ISA scheme for vehicles could lead to a reduction of 36% in road traffic (injury) accidents and 59% collisions resulting in death. There would also be benefits in terms of lower fuel consumption (up to 8%) and more effective road traffic enforcement. In the UK some companies such as Royal Mail, Centrica and Iron Mountain have fitted speed limiters (limited to 70mph) on all vehicles including vans and put stickers on the back of all their vehicles to inform other road users of their self-imposed speed limit.

Example - Iron Mountain - Speed by Speed Zone



Iron Mountain has introduced a 'speed by speed zone' daily report for all of its UK and Ireland vehicles, which reports any violation of more than 4 miles per hour above any posted limit. For example 35 in a 30, or 45 in a 40. Their top speed is also limited to 70mph¹⁴¹. They have worked with drivers to reduce the number of violations and within six months reduced them by over 80%. They now average less than one violation per week, per vehicle. Their on-time delivery service performance indicator of 99.97% has not been affected by the initiative.

Example - KTL - Speed management



KTL operates in the telecom and power industries. The organisation has focussed on speed management including the fitment of telemetry to manage speed¹⁴². KTL has also invested in a Fleet Management Software tool which monitors speed, hours and miles travelled, idle time and diesel consumption. This GP-based system produces real time positioning of the fleet, whether the vehicle is moving or stationary. KTL use the data collected to operate an internal 'penalty point' system for those in breach of speeding limits, by informing individuals face to face or through email that they have exceeded speed limits and showing exactly where and when the incidents occurred on a map.

¹⁴⁰ Carsten O., Fowkes M., Lai F., Chorlton K., Jamson S., Tate F., & Simpkin B., 2008, ISA-UK intelligent speed adaptation Final Report.

¹⁴¹ ETSC, 2014, Iron Mountain Case Study.

¹⁴² ETSC, 2011, PRAISE Fact Sheet KTL Ireland.



RECOMMENDATIONS TO THE EU

- Encourage further roll out of speed management technologies including Intelligent Speed Assistance amongst particular user groups such as van fleets;
- In the medium term adopt legislation for the mandatory fitting of all vans with speed management technologies including ISA;
- Contribute to the development of harmonised standards for ISA towards eventual universal fitment;
- Extend the mandatory use of speed limiters and tachographs, which already exists for HGVs, to vans of 3.5 tons, as a first step to introducing ISA to these vehicle types.



RECOMMENDATIONS TO EU MEMBER STATES

- Include safety criteria (including in-vehicle technology tackling speed) for purchase of vehicles in public procurement requirements and for government authorised contractors and sub-contractors;
- Highlight the need for a wider use of in-vehicle technologies tackling speed with a high life saving potential especially in fleets.



RECOMMENDATIONS TO EMPLOYERS

- Use available technology and systems to analyse the driving behaviour of employees, contractors and subcontractors;
- Extend the use of speed limiters to vans of 3.5 tons, as a first step to introducing ISA to these vehicle types.



7.3 Alcohol and illegal and medicinal drugs

Employers of van drivers have an important role to play in increasing the awareness of drivers about the risks of drink driving and driving under the influence of both illegal and medicinal drugs.

According to a recent report from the UK, van drivers are less likely to be reported as contributing to a collision by drink and drug driving compared to all other vehicles¹⁴³. Yet data from Belgium shows that the percentage of van drivers who drive under the influence of alcohol is higher than amongst car drivers (3.7% compared with 2.4%)¹⁴⁴. Levels of driving under the influence (DUI) are higher at night and at the weekend when 19.2% of van drivers in Belgium are DUI¹⁴⁵. The study adds that van drivers are mainly 40-54 year old men, and that these make up the part of the population who are more likely to drive after drinking in Belgium.

Employers and fleet operators should be strongly encouraged to set up their own initiatives to prevent driving under the influence of alcohol or drugs. This should form part of a holistic approach to setting up a road safety programme. The International Labour Organization's (ILO) Code of Practice on Management of Alcohol and Drug-

¹⁴³ Road Safety Analysis for Axa, 2014, Van Crashes in Great Britain.

¹⁴⁴ Riguelle, F., 2014, Au volant après un verre de trop ? Mesure nationale de comportement « conduite sous influence d'alcool » 2012. Bruxelles, Belgique: Institut Belge pour la Sécurité Routière – Centre de connaissance Sécurité Routière.

¹⁴⁵ Ibid.

Related Issues in the Workplace¹⁴⁶ recommends that every employer should develop the organisation's policy on alcohol and drugs. This should include increasing understanding about the risks of being affected in the morning by alcohol consumed the evening before. ETSC's earlier PRAISE Thematic Report 3 focuses on fitness to drive in the work-related context looking at general Workplace Health Promotion (WHP) including dealing with alcohol, illegal drugs and medicines¹⁴⁷.

Although all European countries have introduced a legal BAC limit, only 15 have a limit of 0.2 or less for professional drivers. While in some countries (Czech Republic, Slovakia, Hungary and Romania), the limit was set at zero from the very beginning, in some others, notably Malta and the UK the BAC limit is still 0.8 g/l. In Spain, the reduced BAC limit of 0.3 applies to drivers of goods vehicles with a total weight over 3.5 tons, therefore excluding vans. Member States should introduce zero tolerance for all drivers but particularly professional drivers including van drivers.



RECOMMENDATIONS TO THE EU

- Propose a Directive setting zero tolerance for drink driving for commercial and novice drivers that would include van drivers¹⁴⁸;
- Launch an initiative for commercial transport companies and companies operating vans to enhance safety of services by integrating prevention of drink driving as a competition factor into their business model;
- Gradually introduce alcohol interlocks starting with target groups such as fleet drivers.



RECOMMENDATIONS TO EU MEMBER STATES

- Increase enforcement of drink-driving and promote 'targeted' testing of those driving for work and systematically allow for a breath test in all police checks relating to driver behaviour and for all collisions dealt with by the police;
- Run drink driving public campaigns linked to workplace health promotion (targeting also professional drivers) based on scientific research and linked to enforcement.

¹⁴⁶ International Labour Office, 1996, Management of alcohol-and drug-related issues in the workplace.

¹⁴⁷ ETSC, 2012, Fitness to Drive.

¹⁴⁸ A technical enforcement tolerance level could be set at either 0.1 or 0.2g/l BAC but the message to drivers should be clear: no drink and drive.



RECOMMENDATIONS TO EMPLOYERS

- Inform and educate employees about the risk of drink driving and adopt a zero tolerance approach to alcohol in the workplace and whilst driving for work;
- Apply procedures and run programmes motivating drivers to comply with regulations;
- Develop clear written internal policies and procedures on drink driving and screening (e.g. before employment, after a collision and randomly). These should be an integrated part of general company workplace health promotion policies;
- Supervisors, line managers and drivers should be trained on the effects of alcohol on driving, and how to identify the symptoms of alcohol misuse;
- As part of a holistic road safety policy consider installing alcohol ignition interlocks in vans.

Driver distraction is thought to play a role in 20-30% of all road collisions.

7.4 Distraction

Driver distraction is thought to play a role in 20-30% of all road collisions¹⁴⁹. There is a long list of distractions that undermine the driver's ability to perform the driving task. Employers should identify and manage all distractions linked to driving for work and ensure that drivers reduce risks by, for example, not eating or drinking while driving; pre-setting music/radio and climate controls; securing any loose objects; pulling over to adjust equipment, check maps or attend to personal grooming; asking passengers to help with tasks (e.g. checking maps)¹⁵⁰.

In Belgium, according to IRTAD, drivers of vans were significantly more often observed with handheld devices than car drivers¹⁵¹. A recent study on distraction from Belgium found that 13.8% of van drivers were displaying distracted behaviour compared with 6.9% of car drivers¹⁵². 14.7% of van drivers use their mobile phone without hands free on the motorway, 9% were found to be checking their phones and text messaging. Van drivers are twice as likely to smoke whilst driving than car drivers. Manipulation of other objects on the road whilst driving is also higher for van drivers and this increases on the motorway. This review is in line with findings of other studies cited from other countries^{153,154,155}.

¹⁴⁹ ETSC, 2010, Minimising In-vehicle Distraction.

¹⁵⁰ Ibid.

¹⁵¹ ECD, 2014, Road Safety Annual Report 2014.

¹⁵² Riguelle, F., & Roynard, M., 2014, Rouler sans les mains. Utilisation du GSM et d'autres objets pendant la conduite sur le réseau routier belge. Bruxelles, Belgique: Institut Belge pour la Sécurité Routière – Centre de connaissance Sécurité Routière.

¹⁵³ Narine S., Walter L.K., & Charman S.C., 2010, Mobile phone and seat belt usage rates in London 2009. Published project report 418. Wokingham, U.K.: Transport Research Laboratory.

¹⁵⁴ Walter, L., 2010, Seatbelt and mobile phone usage surveys: England and Scotland 2009 - Department for Transport.

¹⁵⁵ NHTSA, 2013, Driver electronic device use in 2011. Research note DOT HS 811 719. Washington, DC: National Highway Traffic Safety Administration, Cited in Riguelle, F., & Roynard, M. (2014). Rouler sans les mains. Utilisation du GSM et d'autres objets pendant la conduite sur le réseau routier belge. Bruxelles, Belgique: Institut Belge pour la Sécurité Routière – Centre de connaissance Sécurité Routière.

Increasingly, distractions are becoming more technology focused as vehicles are becoming “moving offices”. They are often environments in which employees are likely to receive or make phone calls, check text messages or even check their emails or social media, not appreciating the enormous road risk that this type of behaviour poses while driving. ETSC’s PRAISE Thematic Report 5 offers employers insights on how to minimise in-vehicle distractions associated with the use of electronic devices or so-called “nomadic devices” including mobile phones, smart phones, music players and portable navigation devices (PNDs).



RECOMMENDATIONS TO EU MEMBER STATES

- Run regular targeted information campaigns for those driving for work linked to enforcement on the risks of using a mobile phone or PNDs whilst driving;
- Adopt clear and strict legislation banning the use of mobile phones, including hands free, whilst driving.



RECOMMENDATIONS TO EMPLOYERS

- Senior managers should take the lead by respecting the distracted driving policy;
- Adopt a clear policy against distracted driving / use of mobile phones and other electronic devices while driving for work, including as a minimum: “engine on, phone off” and asking staff to put their phone on voicemail with an appropriate message;
- Communicate to staff the reasons why policies are in place: hands-free can be as dangerous as hand-held, and having a mobile phone conversation while driving is as serious as or even worse than drink driving in terms of risk.

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- Case study Film from Asda available from: <http://www.virtualriskmanager.net/main/casestudies/asda.php>
- Road Safety Authority Ireland, Vehicle Safety Checks Video: <http://www.rsa.ie/en/RSA/Professional-Drivers/Owners-and-managers/Vehicle-Maintenance-Checks1/>
- Information about the place of further demonstrations are given also on a campaign Website www.hatsgeklickt.de
- ISO International Standard ISO 39001, (2013) Road traffic safety (RTS) management systems – Requirements with guidance for use.

European Transport Safety Council

20 Avenue des Celtes
B-1040 Brussels
information@etsc.eu
Tel: +32 2 230 4106
www.etsc.eu/praise
🐦 @ETSC_EU

