

# MAKING TAXIS SAFER

Managing road risks for taxi drivers,  
their passengers and other road users

May 2016



## 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.

The project is co-ordinated by the ETSC secretariat with the support of Fundación MAPFRE, the German Road Safety Council (DVR), the Belgian Road Safety Institute (IBSR-BIVV) and the Dräger Foundation.

## FUNDACIÓN MAPFRE



Deutscher  
Verkehrssicherheitsrat



## Dräger Foundation

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

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May 2016

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# PART I

## INTRODUCTION



*Taxi travel should be at least as safe, and ideally safer, than using one's own vehicle.*

Taxis are an important component of transport systems the world over. In Europe, with relatively high levels of private car ownership and highly developed public transport, the taxi industry employs more than one million people, representing 8% of jobs in the European transport sector<sup>1</sup>.

Taxis increase mobility (50% of airport transfers are by taxi) and also enable it for aged and disadvantaged people: 40% of European households do not have their own car and 50% of elderly people do not have a car or cannot drive. Taxi services are also used three times more often by mobility-impaired people than the rest of the population<sup>2</sup>. Taxis can be the only means of transport for longer journeys in rural areas.

Taking a taxi can, in some cases, reduce key risks – notably drink driving and getting young people home safely late at night. But research shows that, in general, taxi transport carries as much risk as use of a private car. Buses, for example, are better regulated and safer.

The sector is largely made up of self-employed owner drivers, working long hours, for relatively modest financial reward with not insignificant personal risks. It has been said that taxi driving is one of the least rewarding jobs of the modern age.<sup>3</sup>

The nature of the business, with such a high degree of self-employment, makes regulation a significant challenge. The rise of internet taxi platforms such as Uber, Lyft and Hailo also makes questions such as how to ensure the safety of vehicles, their drivers and passengers ever more urgent.

Taking into account the trend of decreased car ownership<sup>4</sup>, especially in urban areas, taxi travel should be at least as safe, and ideally safer than using one's own vehicle. In order to improve the safety of drivers and passengers, the taxi industry should commit to improving the quality and attractiveness of their services, as well as safety, by increasing the professionalism of drivers and managers.

The aim of this report is to give an overview of taxi safety issues across Europe. It will look at ways of managing the risk for taxi drivers and their passengers. The report will cover taxi safety issues in Europe, national and municipal licensing rules, and the main road risks taxi drivers are exposed to. With examples from across Europe, it will encourage taxi operators to apply good practice measures for their drivers and businesses.

By taxi businesses we will refer to licensed cab drivers, unregulated 'minicabs', limousine drivers and company chauffeurs – as well as drivers working for internet platforms. Safety checklists addressing security of drivers and passengers have been included in the Annex.

<sup>1</sup> IRU, "Did you know?" Facts and Figures on Taxi Transport in Europe. Available from: <https://goo.gl/BaViR2>

<sup>2</sup> IRU, 2007, Improving access to taxis.

<sup>3</sup> J. R. Dalziel, R. F. Soames Job, Taxi drivers and road safety. A report to the Federal Office of Road Safety, Department of Psychology University of Sydney Australia.

<sup>4</sup> UITP, 2016, Public transport at the heart of the integrated urban mobility solution, Available from: <http://goo.gl/j8spdh>

## 1.1 The sharing economy and new trends



As the demand for urban mobility is increasing and with the world urban population expected to increase by 50% by 2050, new mobility trends spurred by technological innovation have appeared. Undoubtedly the biggest change in this area has been the emergence of booking apps that allow taxis to be ordered via a mobile phone app.

The speed and scale of change brought by service providers such as Lyft, Hailo and Uber have made the application of established regulations difficult. These developments however, do raise questions on safety, data security, liability, accessibility, and labour rights that need to be addressed as a matter of urgency<sup>5</sup>. These new types of businesses do not fit existing regulatory models and competition issues arise when operators such as taxi and car rental companies, which are subject to different regulations are forced to compete with these new entrants that, effectively, play by different rules<sup>6</sup>.

This technology is in common use across many European countries. Hailo, Uber and Lyft are operating in European countries on a country by country model, sometimes as licenced booking service providers, solely on the app-based ordering model. Other more conventional taxi companies (dispatch operators) have also moved into app-based ordering and the overall trend for this method of ordering a taxi appears to be increasing.

The fundamental tenet of the regulatory regime in many EU countries is that only licensed drivers and licensed vehicles are used in relation to the carriage of passengers for reward. The underlying policy which governs this is a concern for passenger safety and a concern for passenger protection in relation to pricing.

The rationale for taxi regulation is to ensure that passengers have a safe vehicle for their journey, with appropriate insurance in place, driven by a driver who has been vetted by licensing authorities and, in the case of taxis, with a pre-established and verified charging system.

App-based services have established some useful innovations for safety. Passengers are often offered the possibility of rating their drivers (and vice versa). Drivers can also choose their journeys and clients. Uber claims that in some parts of the United States, introducing the service has led to a decrease in drinking and driving amongst young people, with 78% of people saying that since Uber launched in their city, their friends are less likely to drive after a night out drinking. Uber also says there was a 10% decrease in the amount of driving-under-the-influence arrests in Seattle since the service launched<sup>7</sup>. Affordability of the service is also a factor for young people when opting for a taxi service and the same research shows spikes in usage of the application during the weekend, at night and early morning near locations that serve alcohol later at night.

New technologies also offer opportunities for the whole taxi sector - traditional and new – to improve safety through driver telematics systems that should be able to record and send feedback on driver working hours, rest times, speed and driver behaviour. However, regulation needs to evolve to ensure that current levels of safety are maintained by new operators with different business models.



<sup>5</sup> European Parliament, 2015, Research for TRAN Committee – The world is changing. Transport too. Available from: <http://goo.gl/VU2MVf>

<sup>6</sup> Sundararajan, A. 2014, "Peer-to-Peer Businesses and the Sharing (Collaborative) Economy: Overview, Economic Effects and Regulatory Issues", presentation given at The Power of Connection: Peer-to-Peer Businesses, held by the Committee on Small Business of the United States House of Representatives, January 15th, 2014. Available at: <http://goo.gl/eHoj5R>

<sup>7</sup> Uber, 2016, Getting home safely after a night out. Available at: <https://goo.gl/K4sGmW>

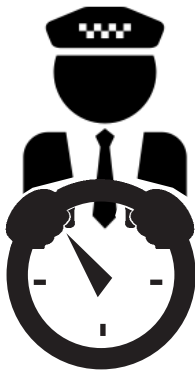
# PART II

## EUROPEAN REGULATIONS COVERING TAXI DRIVERS

This chapter looks at the main EU level regulations that cover taxis and their drivers and explores the possibility of applying some of the principles governing other road transport sectors to the taxi industry. Policy recommendations can be found at the end of the chapter.

The taxi industry is not subject to the same degree of EU regulation as other professional driving fields such as heavy goods vehicles (HGVs<sup>8</sup>). HGV regulations require operators to have drivers who have passed additional driver training through the Certificate of Professional Competence (CPC), and have tachographs fitted to their vehicles to record driving and resting hours.

### 2.1 Driver hours



As a rule of thumb, no professional driver should be required to drive continuously for more than 2 hours without at least a 15-minute break. Employers of drivers have clear duties under EU Regulation (EC) 561/2006 regarding driving time for their employees. Under this Regulation, the driving and rest time periods must be recorded and compliance with these rules must be regularly monitored using digital tachographs. However, this legislation does not apply to taxi drivers.

But there is no reason why the same principles enshrined in this legislation should not be extended to cover taxis. 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'<sup>9</sup>. This principle should also be applied to all taxi drivers, whether employed by a taxi company or self-employed. There is a common perception that taxi drivers end up working long hours, in order to pick up as many clients as they can. Taxi companies should be obliged to set and enforce in-house limits for unbroken driving hours, including daily, weekly and monthly limits for all classes of driver. Breaks and break locations should be planned for in advance of starting journeys.

<sup>8</sup> HGVs represent 1% of vehicles on road (6% of kms) and 16% of fatal collisions.

<sup>9</sup> EU Regulation (EC) 561/2006 regarding driving time for employees



### Example: Switzerland

Switzerland has a regulation (AVR 2) regulating driving hours and rests for drivers including taxi drivers<sup>10</sup>. The maximum weekly working time for taxi drivers is 48 hours - this includes waiting time. Taxi drivers can do a maximum of 208 hours of overtime per year. Taxi drivers are allowed to drive a maximum of 9 hours a day and 45 hours a week. After 4.5 hours of driving, a 45-minute break must be taken. Taxi drivers are entitled to one day off or 24 hours and entitled to up to 20 days of rest (either on Sundays or as bank holidays). Records are kept in a work book where working and driving time is recorded<sup>11</sup>.



### Example: Germany

The German State Accident Insurance Group (BG Verkehr) covering transport helps taxi drivers participate in driver safety training with grants to subsidise training according to guidelines set by the German Road Safety Council. The training lasts at least one day. The offer is valid both for operators and for employees of member companies of the BG Verkehr<sup>12</sup>.

## 2.2 The EU Working Time Directive

Directive 2002/15/EC lays down minimum requirements with regard to the organisation of working time for all people performing mobile road transport activities, including self-employed drivers. This is in order to improve road safety and the health and safety of drivers, and to prevent the distortion of competition. Mobile workers must inform their employer in writing of any hours worked for another employer or work done for them such as driving a taxi, so that these hours can be included when calculating the worker's total working time. The regulations apply to the total time worked, not just the time worked for each employer.

According to this Directive, self-employed means anyone:

- whose main occupation is to transport passengers or goods by road;
- who is entitled to work for themselves and who is not tied to an employer by an employment contract or by any other type of working hierarchical relationship;
- who is free to organise the relevant working activities;
- whose income depends directly on the profits made and who has the freedom to, individually or through a cooperation between self-employed drivers, have commercial relations with several customers.

As many taxi drivers are self-employed, it is vital that the managers, dispatch operators and taxi licensing authorities help and encourage taxi drivers to comply with the requirements of this Directive. Under this legislation, member states have to ensure that average weekly working time does not exceed 48 hours. The maximum weekly working time may be extended to 60 hours only if, over four months, an average of 48 hours a week is not exceeded. However, taxi drivers often end up working many more hours than this and are susceptible to suffering from fatigue, stress and a range of health issues.

<sup>10</sup> Règlement suisse sur le temps de travail et temps de repos sur un chef de file à titre professionnel des véhicules de transport de passagers légers et véhicules de tourisme lourds <https://goo.gl/1Oyy29>

<sup>11</sup> Resting and Driving hours in Switzerland for taxi drivers <https://goo.gl/NtEbFA>

<sup>12</sup> German State Accident Insurance Group driver training <https://goo.gl/REqSDB>



### 2.3 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. At present this training does not apply to taxi drivers. Section three of this report gives an overview of requirements which taxi drivers need to fulfil to gain their taxi operator licence, which in some cases also includes driver training. Some employers also carry out driver training for their drivers. In ETSC's PRAISE Report on Risk Assessment ETSC stressed that 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<sup>13</sup>.



#### Example: Training applications developed by the taxi industry and the International Road Union (IRU)

The IRU, together with the European Commission, have developed Taxi Stars, a free multilingual online taxi training platform and learning application<sup>14</sup>. The module is composed of structured mini-lessons, which can be taken even during short breaks and includes topics such as driver well-being, ergonomics, complacency, emergency case management, personal safety, service orientation and social interaction, conflict management, and eco-driving.

### 2.4 Roadworthiness legislation

According to new EU legislation, periodic testing should be the main tool to ensure roadworthiness of vehicles. As a minimum requirement, taxis (as any normal passenger car) should first be checked four years after the date on which the vehicle was first registered, and thereafter every two years especially as they are used on a regular and intensive basis. Beyond the regular periodic roadworthiness inspections there are no extra requirements set at EU level. However, some countries, including Germany, require annual inspections of taxis. Given the increased levels of exposure of taxis, it might be reasonable to adopt stricter requirements such as those in Germany for more frequent periodic technical inspections.

### 2.5 How to apply a risk assessment procedure to a taxi business

The European Framework Directive 89/391/EEC on the Health and Safety of Workers<sup>15</sup> requires every employer in Europe to undertake a risk assessment according to the principles of prevention. Some member states have supplementary legislation which clearly extends the scope of the requirement to include self-employed workers, and details employers' obligations to eliminate risks related to driving for work.

<sup>13</sup> ETSC, 2010, PRAISE Report From Risk Assessment to Training.

<sup>14</sup> To download for iOS and Android devices, as well as from the web for both on-line and printed use: in English, Finnish, French, German, Greek, Italian and Spanish. [www.taxistars.eu/en](http://www.taxistars.eu/en)

<sup>15</sup> 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.

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

Risk assessment by employers of taxi drivers or (where relevant) self-employed taxi drivers should answer basic questions such as:

- What journeys have to be taken?
- What types of taxis do we have?
- What is the condition of the taxis. Safe? Fit for purpose? Roadworthy?
- Who are they driven by?
- When are they driven?
- 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?



#### Example: Certification scheme for safer taxi companies, Germany

VdTÜV (The Technical Inspection Association) in Germany provides a certificate for safer taxi companies. To gain the certificate companies have to comply with many requirements<sup>16</sup>. The requirements concern three topics: the driver, the car and the company. On the basis of questionnaire risk assessments are carried out.

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<sup>16</sup> Sicherer Taxi- und Mietwagenbetrieb Mit Sicherheit besser ankommen <http://goo.gl/c9PwyW>

# PART III

## NATIONAL AND MUNICIPAL RULES ON TAXI LICENSING

In many countries the regulation of taxis is at a local rather than national level. There are a few exceptions such as Ireland and Germany. Thus, even within countries there can be different regulatory regimes and different requirements to become a taxi driver or owner of a taxi company. This chapter will outline good practice from the local and national level for vehicle and driver safety.

Based on the countries featured in this chapter, it seems that similar regimes exist in many countries. The following standard requirements are common in almost all the cities/countries covered<sup>17</sup>:

- Minimum age criteria (usually 21);
- The holding of an existing driving licence from an EEA country (sometimes for a specific period);
- A test which has practical and theoretical elements;
- Proof of residence or work permit;
- A medical check-up (such as eyesight tests, psychological examination, good medical condition);
- A criminal record check.



### 3.1 Ireland

The taxi industry (SPSV<sup>18</sup>) in Ireland is regulated by the National Transport Authority<sup>19</sup> in accordance with the provisions of the Taxi Regulation Act of 2013. The National Transport Authority runs a Skills Development Programme for operators, designed to help them develop the range of skills needed to operate in the taxi industry on a day-to-day basis. These are divided into two categories:

- Industry knowledge: operators are required to know the taxi regulations and to be familiar with good practice in the industry, vehicle knowledge, how to read a map, customer service, disability awareness, equality and diversity and health and safety<sup>20</sup>.
- Area knowledge: drivers are expected to have a good working knowledge of the county in which they operate (districts, adjoining streets, routes to other towns and villages, national roads and motorways).

<sup>17</sup> Taxi driver licensing in select EU countries/cities, Available from <http://goo.gl/Eg6Ueh>

<sup>18</sup> The acronym SPSV stands for 'small public service vehicle' – taxis, wheelchair accessible taxis, hackneys, local area hackneys, wheelchair accessible hackneys, and limousines. Any such vehicle must be associated with a valid SPSV licence. In addition, the driver of an SPSV must have a valid SPSV driver licence.

<sup>19</sup> National Transport Authority, 2016, Guidelines for taxi and vehicle licensing, Available from: <https://goo.gl/LkqmnC>

<sup>20</sup> National Transport Authority, 2016, Industry knowledge test, Available from: <https://goo.gl/WdoHfK>

New drivers that want to obtain a taxi driver licence have to complete the Skills Development Programme and pass an entry test, which covers both industry knowledge and area knowledge. These are mandatory requirements.

All taxis must satisfy the same roadworthiness requirements as private motor vehicles (the National Car Test). The only difference is that taxis must be tested and pass the roadworthiness test before they are first licensed and each time their licence is renewed – every year for most taxis and every six months for taxis that are over ten years old.

Vehicles licensed as taxis must carry safety equipment and a means of aiding communication with passengers. The vehicle must satisfy requirements relating to age and size, and it must be insured to be driven for hire or reward. There are further requirements depending on the category of taxi.

### 3.2 France



Apart from the common criteria listed at the beginning of the chapter, in France certain driving offences (such as driving while intoxicated or after drug use, speeding, unintentional injuries to others while driving, driving without a licence) prevent an applicant from obtaining a taxi licence.

Non-European Union candidates need to show that they have a permit to exercise a professional activity in France. They also need a Certificate of Professional Competence for taxi drivers, which is given after a regionally-set exam is passed. The exam includes several tests on various subjects: general regulations, road safety, French language, management, local regulations, and a driving test.

### 3.3 Netherlands



In the Netherlands there are two kinds of transport by taxi, street taxis (hailing and pre ordered – by phone, internet or app for example) and contract taxis (on the basis of longer term predominantly public contracts). The latter provide transport for elderly people, the disabled and pupils of special schools. In order to improve the quality of taxi services, the Ministry of Infrastructure and the Environment drew up rules which give municipalities the power to develop additional quality rules, in addition to national rules.

As of 2011, a tariff system which takes into account the duration of a taxi ride came into place. The final price consists of a starting fare, a time rate and a distance rate. These can potentially prevent taxi drivers from speeding. As of 2015 an on-board computer is compulsory for all taxis. The device digitally registers work and rest periods of the driver. The checking regime is (overall) divided in two parts: inspectors from the Human Environment and Transport Inspectorate (under the Ministry of Infrastructure and Environment) visit taxi-companies and also check taxis on the road looking at driving and resting hours. They also check the use of the on board computers, use of correct tariffs and other legal requirements<sup>21</sup>.

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<sup>21</sup> Dutch Ministry of Environment and Infrastructure <http://goo.gl/89VjcY>

### 3.4 UK – London



The professionalisation of taxi driving is put in place thanks to vehicle and driver licensing. Compared to 2013, the number of taxis and private hire vehicles (PHV) - pre-booked, via an application or Uber - has been increasing. PHVs in London in 2015 increased by 25.9%, taxis in England outside London by 5.3% and taxis in London by 1.5%<sup>22</sup>. The majority of the 22,500 taxi vehicles currently licensed are owned and driven by individual licensed drivers<sup>23</sup>. In order to obtain the vehicle license, all new vehicles or vehicles new to licensing must, as a minimum, meet the Euro 6 standards for emissions at time of licensing. Vehicles already licensed by Transport for London must be no older than 15 years at the time of licensing. Furthermore, the vehicle must meet the design standards set out in the conditions of fitness<sup>24</sup> as well as national and European type approval requirements. The specific requirements are illustrated in part 5.6 of the report.

London taxi drivers have to pass the 'Knowledge' test in order to obtain the taxi license. They usually have to learn 320 routes, 25,000 streets and 20,000 landmarks or places of interest within a six mile radius of Charing Cross. It usually takes two to four years to pass and, once qualified, cabbies can work anywhere in the Greater London area. Another way to pass the test is to learn 30 to 51 runs, landmarks and places of interest. This is usually quicker to pass than for all-London drivers – about two years – but drivers can only work in the sector they're licensed for<sup>25</sup>.

### 3.5 Belgium – Brussels



According to Brussels Mobility<sup>26</sup>, to become a taxi driver, all candidates must complete a course or a period of training that leads to a certificate. Road safety is included in the course syllabus together with information about pedestrians and cyclists as well as the importance of using the dedicated taxi lanes. Future taxi drivers should also take a course on eco-driving, learning how to reduce fuel consumption as well as wear and tear on their vehicle and shorter routes around the city. The local authority course covers the topography of Brussels, legislation relating to taxis, practical aspects (taximeter, roadmap, collision reports), social legislation, common phrases in Dutch and English, regulations regarding access to specific sites, information relating to the transport of persons with reduced mobility and information on security (such as how to deal with aggressive clients). Individual taxi businesses can also offer vocational training to individuals wanting to gain the certificate to practice as a taxi driver in Brussels. This is an eight-week training course consisting of theoretical and practical parts. After the eight weeks of training they must then work for four months for the taxi company with weekly progress reports signed by their tutor. They are then issued with a full certificate to allow them to become a licensed taxi driver.

### 3.6 Spain – Madrid



To become a taxi driver in Madrid the applicant must pass an aptitude test, hold a driving license class B or higher and BTP authorisation (this is an additional authorisation on the driving license that allows the driving of ambulances, police cars, fire engines, cars for civil protection and rescue, taxis and school buses), have no criminal record, not be suffering from a physical or psychological condition that may hinder the normal exercise of the profession of taxi driver and have

<sup>22</sup> Department for Transport, 2015, Taxi and Private Hire Vehicle Statistics in England. Available from: <https://goo.gl/VesuUY>

<sup>23</sup> TfL information for fleet owners. Available from: <https://goo.gl/H1ftKA>

<sup>24</sup> TfL taxi vehicle licence information. Available from: <https://goo.gl/24bMmF>

<sup>25</sup> Taxi driver licensing in select EU countries/cities. Available from: <http://goo.gl/Yxsdif>

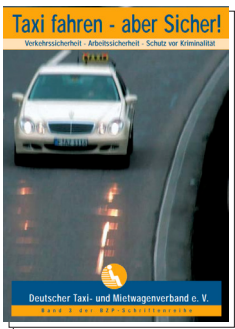
<sup>26</sup> Brussels Mobility, 2016, Informations à l'attention des candidats-chauffeurs de taxis. Available from: <http://goo.gl/VL4Fov>

completed secondary education. Qualifications obtained abroad must be proved to be equivalent and relevant. The aptitude test is a multiple choice test on computer and covers a number of areas including taxi regulations and fares, a physiological test, environmental awareness, direct routes to destinations, and areas of local interest.

### 3.7 Germany



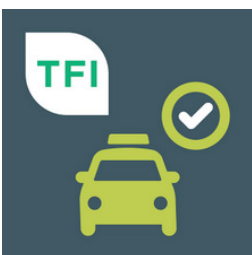
In Germany the requirements for obtaining a taxi licence include having a principal residence in the area where the respective driver will practice taxi driving, a minimum age of 21 years and having had a driver's licence for 2 years within the last 5 years. The applicant may have a German, EU or EEA country driving licence or a proven equivalent from a driver's own country i.e. the person must apply for a European driving licence which proves equivalency. The applicants should have maximum 2 points at the Register for Traffic Offences and present a clean criminal record check. They must also present a medical and psychological check-up and a special eye-test. The driver must pass a local knowledge test for taxi and hire car drivers conducted mostly by the local licencing authority or by the local chamber of commerce. Non-EU nationals must provide a valid residence permit and in addition there is a general medical evaluation including a performance assessment and eyesight test. As of 2015, all taxi drivers in Germany are required to wear a seatbelt. Furthermore, in Germany, the roadworthiness tests of taxi cars are carried out every year and if a taxi driver loses their licence due to sanctions within the penalty point scheme their licence to transport passengers is also withdrawn.



#### Example : Drive a Taxi – but Safely! Safety Brochure of the German Taxi Association

The German Taxi Association prepared a special 60-page booklet on safety linked to traffic and working conditions<sup>27</sup>. Alongside security concerns, the booklet clearly states that the greatest risk for taxi drivers is that of being involved in a traffic collision with the risk of serious injury or death. While there were 67 deaths caused by physical attacks on taxi drivers between 1989 and 2005, 259 drivers died in traffic collisions.

The booklet also covers child safety, load securing, a section on the importance of using safety belts and correct behaviour in case of an incident. Another chapter is dedicated to occupational safety and the working environment of a car including wearing the right clothing and suggestions about diet.



#### Example: Ireland's Driver Check App

In Ireland every taxi driver must enter their personal details and those of the vehicle they are driving in the National Transport Authority's driver/vehicle electronic register. This can be done at any time by telephone, text, website or smartphone app. This linking allows potential customers to verify, through the public facing Driver Check App, that both the vehicle and the driver are licenced by the Authority.

The Driver Check App allows anyone to check the licence details of both a vehicle and its driver, and to see an ID photo of the licenced driver authorised to drive that particular vehicle. All details can be checked by a customer before they get in the vehicle.

The passenger may also simply forward these details (minus the photo) to a friend, keep a record of the checks they have completed, or, if the details are unavailable or

<sup>27</sup> 'Drive a Taxi – But Safely' Brochure of the German Taxi Association, Available from : <http://goo.gl/MqUYcA>



incorrect, report any inconsistencies to the Authority's compliance team for follow up – all of which will reassure customers that they are travelling safely, and that there is a record of their trip. The Driver Check App is easy to use; all a consumer has to do is launch it on their phone, and then input one of the following:

- 1) Ordinary vehicle registration number;
- 2) Vehicle licence number – displayed on roof-sign and on door signs;
- 3) Driver licence number (displayed on the ID card on the dashboard of the vehicle).

This App is free to download from Apple's App Store and the Android's Google Play Store.

A statutory Advisory Committee on Small Public Service Vehicles, comprising 18 representatives from the SPSV and other industries, is in place with the primary function of providing advice to the National Transport Authority and to the Minister for Transport, Tourism and Sport, as appropriate, in relation to issues relevant to small public service vehicles and their drivers, including safety.

### UpTop – Quality Assurance Scheme Led by the Taxi Industry



The International Road Transport Unit (IRU) has created UpTop<sup>28</sup>, the Global Taxi Network which brings together good practice from the taxi industry with the aim of professionalising the taxi system. The Network is composed of IRU Members (taxi trade associations) and taxi application providers which have been certified by the international UpTop Evaluation Committee. All partners sign and comply with a Quality Service Commitment Charter<sup>29</sup> which has safety at its core. UpTop encompasses more than 350,000 taxis worldwide and is growing rapidly with an average of 30,000 taxis being added every month. Most of the partners provide safety and security features in their applications such as emergency alerts. IRU has also developed accessibility guidelines to accompany the checklist for drivers. Within this context, the IRU actively encourages taxi associations to demand compulsory seatbelt wearing.



### RECOMMENDATIONS TO EU MEMBER STATES

- Set up accreditation schemes including key safety criteria for taxi operator accreditation.
- Introduce professional training on road safety as part of taxi operator accreditation.
- Set up systems to better enforce driving and resting hours of taxi drivers and prevent fatigue.
- Spur on large companies to have a responsible person trained as a 'transport manager' under similar requirements as 'Operator CPC<sup>30</sup>' to ensure the larger taxi companies are run safely, effectively and in compliance with all relevant EU and national road safety and road traffic rules.

<sup>28</sup> <http://uptop.taxi/>

<sup>29</sup> IRU, 2013, Quality Service Commitment Charter, Available from: <https://goo.gl/v8SPx>

<sup>30</sup> Transport Manager CPC is a legal requirement of the operator licensing system for lorry and coach drivers under EU legislation.

# PART IV

## SAFE DRIVERS

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

A study found that crash rates for taxis were higher than for other cars, but those crashes were less likely to be fatal. Interestingly, wearing a seatbelt at the time of the crash was not significantly likely for the greater part of the drivers<sup>31</sup>.

A UK in-depth study into work-related road collisions showed that taxi drivers had a disproportionate number of collisions where they failed to look in the relevant direction at all. Most commonly this involved u-turns in the road in front of a vehicle that is about to pass them, or reversing without enough rear observation and hitting pedestrians or other vehicles.<sup>32</sup>

The same study found that taxi drivers seemed to have more collisions caused by other parties between midnight and three in the morning, but showed no such peak in their 'to blame' incidents. On examination, most of these collisions involved either pedestrians (usually intoxicated) attempting to cross the road in front of taxis, or taxi drivers becoming the victim of drunk and dangerous drivers who tend to be on the roads in the early hours of the morning.

### 4.1 Preventing stress

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: from 27.2% (in 1995) to 36.9% (in 2000)<sup>33</sup>. Regardless of the type of employment, the vast majority of taxi drivers work long hours including waiting time. Research from Australia says that the average time on the road as a taxi driver is 51 hours a week, and when this is combined with any other work or study completed on the side, the average total rises to 58 hours<sup>34</sup>. A study carried out in New York by Colin Camerer and colleagues<sup>35</sup>, suggested that taxi drivers had a daily income 'target', and observed that, "when wages are high, drivers will reach their target more quickly and quit early; on low-wage days they will drive longer hours to reach the target."

Member states need to consider work-related stress and psychosocial risks<sup>36</sup>. 50-60% of all lost working days can be attributed to work-related stress<sup>37</sup>. According to EU

<sup>31</sup> MA Symmons, NL Haworth, 2005, Characteristics of Taxi Crashes in New South Wales, Monash University Accident Research Centre, Available from: <http://goo.gl/x9MbVO>

<sup>32</sup> An In-depth Study of Work-related Road Traffic Accidents, 2005, UK Department for Transport, Available from: <http://goo.gl/FutBAf>

<sup>33</sup> Eurofound European Foundation for the Improvement of Living and Working Conditions 1997 and 2001 .

<sup>34</sup> J. R. Dalziel, R. F. Soames Job, Taxi drivers and road safety. A report to the Federal Office of Road Safety, Department of Psychology University of Sydney Australia

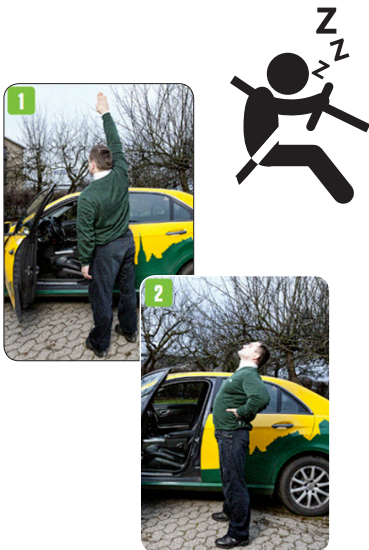
<sup>35</sup> C. Camerer et al., Labor Supply of New York City Cab Drivers: One day at a time. Available from: <http://goo.gl/aoTyz>

<sup>36</sup> 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.

<sup>37</sup> EU OSHA, 2014, Facts and figures about stress and psychosocial risks.



OSHA, involving everyone in promoting a good psychosocial work environment is key<sup>38</sup>. 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 2.5) 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 performance<sup>39</sup>.



## 4.2 Fatigue

Another major risk factor affecting driving for work is fatigue. Increased collision risk occurs at night (peak levels at night can be 10 times higher than daytime levels), on longer working days, and with irregular hours.

Working in isolation, without the professional social environment and hierarchy can also cause mental fatigue as admitted in a survey by Finnish professional drivers<sup>40</sup>. It would seem logical to suggest that these same pressures apply to taxi drivers.

The organisation and nature of the work can cause stress due to unsocial working hours or long shifts. Taxi drivers can be at high risk of fatigue as they may work 10 to 12-hour shifts. It has also been shown that the collision rate increases as the total average break time per shift decreases<sup>41</sup>. In addition, night work and irregular schedules may, for example, cause sleep problems. Fatigue factors that have been shown to influence road safety need to be better controlled by regulation and risk management. The earlier ETSC PRAISE Thematic Report 3 focuses on managing fatigue in the work-related context in more detail<sup>42</sup>.

### Example: Denmark

The Danish guidelines for taxi drivers "Jeg korer Taxi" (I'm driving a taxi) are concise and give an illustrated step-by-step approach (with illustrations) to manage health risks. They are aimed at preventing stress and physical pain<sup>43</sup>, and give road safety and driver education guidelines for taxi managers and taxi drivers<sup>44</sup>.



## 4.3 Seat belt wearing

Seat belts are a highly effective way of reducing deaths and serious injuries. 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 including taxi drivers in specific circumstances which can be set at a national level.

In many countries, taxi drivers are exempt from wearing a seat-belt with the rationale that drivers may need to make a quick escape from potential dangerous situations. Exemptions from seat belt wearing are in place in Austria (also for children

**National governments should end exemptions for taxi drivers from seat belt legislation.**

<sup>38</sup> EU OSHA, Healthy Workplaces Website.

<sup>39</sup> Healthy Workplaces, 2014, Campaign Guide.

<sup>40</sup> Houtman, I.L.D., et al., 2004, EU road freight transport sector: work and employment conditions. Dublin: European Foundation for the Improvement of Living and Working Conditions, in S. Thierry, D. Chouaniere, C. Aubry, 2008, Conduite et santé. Une Revue de la littérature. Available from: <http://goo.gl/61po1E>

<sup>41</sup> J. R. Dalziel, R. F. Soames Job, Taxi drivers and road safety. A report to the Federal Office of Road Safety, Department of Psychology University of Sydney Australia.

<sup>42</sup> ETSC, 2010, Fitness to Drive.

<sup>43</sup> Danish guidelines on preventing physical long term injury <http://goo.gl/XNKQtG>

<sup>44</sup> Danish guidelines for employers and operators managing taxis <http://goo.gl/FtFqoC>

transported in taxis, if sitting in the back seat), Bulgaria, Belgium, Denmark, Finland, France, Greece, Hungary, Malta, Poland, Romania, Slovakia, Spain (only in urban areas,

together with passengers shorter than 135cm sitting on the back seat and travelling in urban areas), Sweden and the UK. In Sweden children under 3 on temporary short distance sitting in the back seat and children over 3 and shorter than 135cm on temporary short distance travel are exempt from wearing a seat belt in the back seat. The same applies for the UK<sup>45</sup>. National governments should end exemptions of taxi drivers from seat belt legislation. In Germany, as of October 2014, taxi drivers are fined if they do not wear a seatbelt.

#### 4.4 Speeding



Excessive and inappropriate speed is the number one road safety problem<sup>46</sup>. Speeding is the main cause of road traffic collisions, deaths and serious injury. Employers have a clear responsibility to reduce incentives to speeding and to raise understanding of the serious consequences it can have. In the case of self-employed taxi drivers, licensing authorities bear the responsibility of raising awareness on the dangerous consequences of driving above the speed limit.

Taxi drivers are often under pressure to collect passengers, or under pressure from the client to reach their destination, and hence likely to speed. In many cities, they are allowed to use public transport priority lanes, which is an incentive not to speed. An in-depth collision investigation study into work-related crashes in the UK, found that alongside bus and emergency vehicle drivers, taxi drivers suffer more collisions primarily caused by other road users. Their problem being therefore predominantly one of exposure to dangerous environments such as congested urban areas, night-time driving and carrying drunk passengers<sup>47</sup>.

A survey undertaken by the ADAC in Germany tested taxis in eight German cities according to different criteria such as route choice, the state of the vehicle and also helpfulness and local knowledge<sup>48</sup>. One result of the study was that 17.3% of taxi drivers disregarded traffic rules. One solution to prevent speeding is to equip taxi vehicles with mandatory Intelligent Speed Assistance. See section 5.3 for more details.



#### Example: Gävle Taxi

This Swedish taxi company has equipped their vehicle fleets with Intelligent Speed Assistance systems. Amongst the benefits listed, managers reported better behavior of drivers in traffic and fuel savings of 7%.



<sup>45</sup> European Commission, "Going Abroad", Available from: <http://goo.gl/5hHuAd>

<sup>46</sup> Aarts, L. & van Schagen, I. (2006). Driving speed and the risk of road crashes: a review, *Accident Analysis and Prevention*, vol. 38, issue 2, p: 215-24.

<sup>47</sup> UK Department for Transport, 2005, *An In-depth Study of Work-related Road Traffic Accidents*, Available from: <http://goo.gl/FutBAf>

<sup>48</sup> ADAC, 2014, *Survey of taxi trips in German cities*. Available from: <https://goo.gl/DJKif8>



#### 4.5 Alcohol and illegal and medicinal drugs

Employers of taxi 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. Employers and taxi service 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 and could include fitting of alcohol interlocks (see section 5.5).

#### 4.6 Distraction



Driver distraction is thought to play a role in 20-30% of all road collisions<sup>49</sup>. There is a long list of distractions that undermine the driver's ability to perform the driving task. Fleet taxi managers operators should identify and manage all distractions linked to driving and ensure that their drivers reduce risks by securing any loose objects or pulling over to adjust equipment or attend to personal health and care<sup>50</sup>.

With the advent of mobile applications, taxi drivers are now able to receive client orders through their mobile phones which may create distraction. Ideally taxi drivers should receive information on their next client order with the minimum amount of distraction using hands-free communication and not via a hand-held mobile phone, for example. Options include their GPS which will direct them to the next pick up job. Situations such as the one in the photo below should also be avoided.

The picture illustrates a taxi driver on the job in Bucharest, active on different taxi booking applications (private hire) that enable him to receive pick-up orders.

#### 4.8 Aggression against drivers

Particular to taxi drivers is concern over security, which can also contribute to stress and thus have an impact on road safety. Driving a taxi is seen as dangerous in many parts of the world<sup>51</sup>. In Sweden, 65% of bus drivers, tram and taxi, report having had an altercation with a client in the previous 12 months<sup>52</sup>. Taxi drivers should be trained on how to defuse dangerous situations or equipped with warning buttons.

Reducing risks requires employers and/or taxi drivers to assess their potential hazards and consider physical and procedural methods for reducing them. Generally, physical or "engineering" controls should be considered first since they create physical barriers between drivers and the hazards. Procedural methods require changes in behavior, such as not accepting cash, carrying less cash with them and only paying via credit card or mobile phone application.

<sup>49</sup> ETSC, 2010, Minimising In-vehicle Distraction.

<sup>50</sup> Ibid.

<sup>51</sup> The Washington Post, 2015, Charted: The 20 deadliest jobs in America, Available from: <https://goo.gl/OhZOSh>

<sup>52</sup> Houtman, ILD., et al., 2004, EU road freight transport sector: work and employment conditions. Dublin: European Foundation for the Improvement of Living and Working Conditions, in S. Thierry, D. Chouaniere, C. Aubry, 2008, Conduite et santé. Une Revue de la littérature. Available from: <http://goo.gl/61po1E>



### RECOMMENDATIONS TO EU MEMBER STATES

- Target taxi drivers with measures to prevent fatigue. This can be achieved through legislation limiting working hours, education, information and training about the dangers of driving when tired before licencing<sup>53</sup>.
- Mandate the use of seat belts for taxi drivers (and child passengers) without any exemptions for short trips, front or back seat.
- Increase enforcement of seat belt wearing amongst taxi drivers.
- Include safety criteria for purchase of taxi services in public procurement requirements and for government authorised contractors and sub-contractors.
- Promote the uptake of speed management technology amongst taxi fleets.
- 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.
- Support the launch of an initiative for national level taxi associations and taxi companies to enhance safety of services by integrating prevention of drink driving as a competition factor into their business model.
- 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.



### RECOMMENDATIONS TO TAXI FLEET MANAGERS AND OWNERS

- Purchase vehicles 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 taxi drivers to comply with seat belt regulations.
- Use available technology and systems to analyse the driving behaviour of employees, contractors and subcontractors, as far as national data protection regulation allows it.
- Inform and educate taxi drivers about the risk of drink driving and adopt a zero tolerance approach to alcohol in the workplace and whilst driving for work.
- Develop clear written internal policies and procedures on drink driving and screening (e.g. before employment, after a collision and randomly).
- Adopt a clear policy about minimising distracted driving and use of mobile phones and other electronic devices.
- Include written guidelines on preventing driver fatigue in the health and safety management policy and driver handbook.
- Set limits on acceptable driving durations through consultation with employees.
- Make drivers aware of the dangers of fatigue and advise them 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 shift patterns, journey planning, employment contracts and work schedules do not contribute to driver fatigue and stress by putting employees under time-management pressures.
- Promote use of technologies against fatigue (detection and warning).

<sup>53</sup>ETSC, 2012, PRAISE Thematic Report on Fitness to Drive.

# PART V

## SAFER VEHICLES

### 5.1 Vehicle management

Employers of taxi drivers or self-employed drivers should ensure that vehicles are 'fit for the task'. They should be fully insured, serviced and maintained to a high standard. Regardless of ownership, employers could also specify minimum standards of vehicle safety features. Over 50% of new vehicles are initially purchased for commercial purposes<sup>54</sup>. Purchasing safe vehicles is therefore an obvious way for employers to provide a safe working place for their employees. Vehicle management processes and initiatives should be developed in the context of the outcomes of a risk assessment as outlined earlier on in the report.

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.<sup>55</sup>

Managers should (through internal policies and/or contracting arrangements) ensure that such vehicles are 'fit for purpose'. This means 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, if they are being driven for work-related purposes.

### 5.2 Selection and procurement

At a basic level, those responsible for procuring taxis 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, carriage of passengers, the work environment and the intended tasks.

Employers and driver-owners can influence road safety through four key taxi selection criteria:

- Protection of occupants in a collision;
- Capability to avoid or mitigate a collision;
- Protection level given by the vehicle for unprotected road users;
- Vehicle's compatibility with other vehicles.<sup>56</sup>

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<sup>54</sup> Polk, 2009, Copenhagen Economics Company Car Taxation.

<sup>55</sup> ETSC, 2012, ETSC PRAISE Report on Work Related Road Safety Management Programmes.

<sup>56</sup> 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. Moreover, if employers have a large fleet, they can also use their purchasing power to influence vehicle safety design.

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 purpose.<sup>57</sup>

Employers should specify minimum standards of vehicle safety features and Euro NCAP star rating. Vehicle safety features can reduce the incidence and severity of crashes and the vehicle supply industry developed many technology-based interventions for fleet operators to consider in-vehicle specification and procurement decisions. In terms of safety technologies available, passive measures are those that protect individuals automatically without any action on their part, including vehicle design changes.

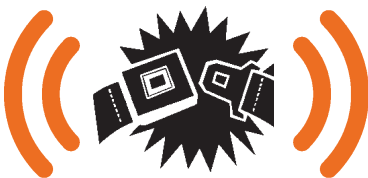
Of particular relevance linked to key risks are the three technologies also prioritised by ETSC: seat belt reminders, alcohol interlocks and intelligent speed assistance.

### 5.3 Intelligent Speed Assistance



Intelligent Speed Assistance (ISA) is the term given to a range of devices that assist drivers in choosing appropriate speeds and complying with speed limits<sup>58</sup>. Intelligent Speed Assistance technologies bring speed limit information into the vehicle. Drivers receive the same information that they see (or sometimes miss seeing) on traffic signs through an on board communication system, helping them to keep track of the legal speed limit throughout their journey. Information regarding the speed limit for a given location is usually identified from an on board digital map in the vehicle. The introduction of Intelligent Speed Assistance will help to achieve a high level of compliance with speed limits and thereby reduce road deaths substantially<sup>59</sup>. Estimates by Carsten<sup>60</sup> show that assisting ISA could cut all deaths by 21%<sup>61</sup>. Since 2013 Intelligent Speed Assistance (ISA) has been included in the new Euro NCAP safety rating with both advisory and voluntary active systems being awarded points.

### 5.4 Seat belt reminders



Increased seat belt usage can be achieved with 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. There are different types of seat belt reminders – some issue only visual warnings while others issue both visual and auditory warnings. ETSC has estimated that 900 deaths could have been prevented in 2012 if 99% of all occupants had been wearing a seat belt, a rate that could be reached with seat belt reminders. ETSC is calling for the extension of the mandatory fitment of advanced seat belt reminders as standard equipment to all seats by the EU<sup>62</sup>.

<sup>57</sup> ETSC, 2012, Work Related Road Safety Management Programmes.

<sup>58</sup> ETSC, 2013, Intelligent Speed Assistance : FAQs.

<sup>59</sup> Carsten, O. and Tate, F., 2005, Intelligent Speed Adaptation: Accident savings and cost benefit analysis.

<sup>60</sup> Carsten O., Fowkes M., Lai F., Chorlton K., Jamson S., Tate F., & Simpkin B., 2008, ISA-UK intelligent speed adaptation Final Report.

<sup>61</sup> Calculations from Carsten, O. based on Carsten O., Fowkes M., Lai F., Chorlton K., Jamson S., Tate F., & Simpkin B. 2008, ISA-UK intelligent speed adaptation Final Report Using R. Elvik Power Model, February 2015.

<sup>62</sup> ETSC, 2015, Position Paper: Revision of the General Safety Regulation, Available from: <http://goo.gl/KY-o06Y>

## 5.5 Alcohol interlocks



The European Commission estimates that across the EU at least 20% of all road deaths are alcohol related. Alcohol interlocks are an effective countermeasure in the fight against drink driving. Alcohol Interlocks are connected to the vehicle ignition system and require the driver to take a breath test in order to drive the vehicle. If the driver is found with alcohol above the legal BAC limit the engine will not start. In many EU countries the technology has found its way on a voluntary basis into vehicles which are used for the transport of goods or passengers. The interlock is used as a quality assurance tool to comply with a company's alcohol and drugs policy. Some EU member states such as Finland have also mandated alcohol interlocks for vehicles that transport school children including taxis.



### Example: Kajon Taxi Firm, Finland

Kajon is a Finnish taxi and minibus company operating nationally in passenger transportation with a fleet consisting of 150 vehicles, each carrying 4-45 passengers, also with wheelchairs.



All of them have been equipped with alcohol interlocks since 2007. Four years later, the legislation in Finland made them compulsory in school transportation. Being in the frontline of this development gave the company positive publicity and the chance to share user experience with the alcohol interlock industry and officials in advance.

Kajon has its own alcohol interlock policy which is distributed to the staff. It has been made clear that any suspicions of driving over the legal limit of 0.5 BAC will be reported to the police. The wireless interlock is set to prevent starting the engine with any result of over 0.2 BAC. These results are instantly reported via sms messages to supervisors and typically result in a warning and an interview to address any problems related to alcohol use. Work contracts forbid consuming alcohol before a shift. Any attempt to bypass the interlock or driving over the legal limit results in dismissal. More information about what the company does for its drivers, can be read in the case study accompanying this report.



### Example: Sweden

Sweden has stimulated the voluntary use of alcohol interlocks in taxis as well as buses and trucks. The Swedish government started promoting alcohol interlock use by professional drivers in 1999. Fourteen years later, in 2013, the number of alcohol interlock-equipped commercial and public transport vehicles in Sweden had grown to over 120,000. According to the Swedish Public Transport Association and the Swedish Transport Administration, alcohol interlocks are currently installed in approximately 70% of all taxis and 90% of public buses<sup>63</sup>. Many municipalities have made installation in school buses mandatory. Furthermore, Regulation SFS 2009:1 requires Swedish authorities to investigate the possibility of acquiring transport by vehicles equipped with alcohol interlock devices with the aim to have 75% of all transportation vehicles bought or leased by the Swedish authorities equipped with alcohol interlock devices<sup>64</sup>.

<sup>63</sup> European Parliament (2014) Technical development and deployment of alcohol interlocks in road safety policy <http://goo.gl/r24YzS>

<sup>64</sup> Ecoyrys (2015) Study on the prevention of drink-driving by the use of alcohol interlock devices <http://goo.gl/zcp1fG>



### Example: Finland

In Finland a trial regarding voluntary alcohol interlock use in commercial transport took place in 2007–2008<sup>65</sup>. Five taxi, bus and freight transport companies participated in the trial, which included 64 vehicles and over one hundred drivers. Since August 1<sup>st</sup> 2011 alcohol interlocks have become mandatory for all vehicles providing transportation services for pupils until secondary education, and for day care in cases where transport is organised or (partially) funded by public institutions. In November 2011, an estimated 8,000 alcohol interlocks were in use in commercial transport, the majority in taxis that are used in school and day care transport.

## 5.6 National and procurement criteria for taxi vehicle type selection

There are no technical requirements set at European level for which sort of vehicle should be used as a taxi. However, in some EU member states requirements have been set.

For example, Germany has certain legal requirements covering doors, seats, brakes and steering. They also require the installation of a tachometer and control device as well as security equipment such as an alarm bell and specific signage to indicate that they are a taxi.

Incentives to raise safety as criteria for contracts should be included in public and private procurement of taxi services. When private companies or public employers are contracting out a taxi service they should include vehicle safety requirements such as a minimum 5 star Euro NCAP rating in their criteria.



### Example: The London black cab

Taxi cabs are regulated throughout the UK, but the regulation of taxi cabs in London falls under the remit of Transport for London's Taxi and Private Hire office. It is especially rigorous with regard to mechanical integrity and driver knowledge. London's traditional black cabs are specially constructed vehicles designed to conform to the standards set out in the Metropolitan Conditions of Fitness for Taxis 2007<sup>66</sup>. For many years purpose-built vehicles were used, but from about 2008 specially-adapted "people carrier" vehicles have also been used as they also meet the requirements.



The conditions require that all vehicles manufactured for use as licensed taxi cabs in London must be inspected for compliance with the standard before use. They regulate compliance with general UK and European vehicle standards and with specific design requirements including access to the vehicle, dimensions and layout, manoeuvrability, visibility and equipment. Amongst the main requirements are the need for separate passenger and driver compartments, high internal headroom and a ramp for wheelchair user access. For improved manoeuvrability and to minimise the impact of the many taxis operating in the city on other road users, the turning circle is smaller than other vehicles of similar size. The cab seats three people on the back seat, and two more in backwards-facing "jump seats". There is good headroom, to facilitate entry to and exit from the vehicle.

<sup>65</sup> Vehmas et al., 2012 in Ecoyrys (2015) Study on the prevention of drink-driving by the use of alcohol interlock devices <http://goo.gl/HYBMRx>

<sup>66</sup> Transport for London, 2007, Conditions of Fitness for Motor Taxis in London <http://goo.gl/eamrl1>



## 5.7 Inspection and maintenance

Employers of taxi drivers have a duty to ensure that procedures are put in place for regular inspection and maintenance of all vehicles used for work purposes. It is their responsibility to ensure roadworthiness at all times<sup>67</sup>. For employers and for owner-drivers a preventative maintenance regime makes good business sense in terms of avoiding higher costs if repairs are not undertaken. As a minimum, maintenance regimes recommended by vehicle manufacturers need to be adhered to and more regular checks by drivers, such as daily or pre-shift walk-around vehicle checks should also be required.



### RECOMMENDATIONS TO TAXI FLEET MANAGERS AND OWNERS

- Develop policies and procedures for the management of vehicles;
- Include safety criteria when purchasing vehicles, including 5 star Euro NCAP cars and vehicles with built-in safety technologies<sup>68</sup>;
- 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;
- Maintenance should regularly assess an appropriate high standard and to ensure approved replacement parts are used on vehicles, particularly for safety-critical elements such as brakes and tyres;
- Ensure that processes are put in place for regular inspection and maintenance of all vehicles, including leased and employee owned vehicles.



### RECOMMENDATIONS TO EU MEMBER STATES

- Develop technical requirements for taxi vehicle safety covering vehicle occupant protection and vehicle safety technology fitment which are stricter than the legal requirements;
- Include vehicle safety requirements in procurement procedures for taxi services and apply this throughout the supply chain;
- Consider introducing more frequent periodic technical inspection requirements for taxis.

<sup>67</sup> European Agency for Safety and Health at Work, Factsheet 56 on Maintenance and Work Related Road Safety <https://goo.gl/zs8ABj>

<sup>68</sup> ETSC, 2009, Guidance on in-vehicle safety technologies, 2009, "How can in-vehicle safety equipment improve road safety at work?" <http://goo.gl/8uhqLa>

# PART VI

## ENSURING THE SAFETY OF PASSENGERS

### 6.1 Responsibilities for passenger safety

Taxi drivers have a responsibility to ensure the safety of their passengers. The need to meet a requirement to look after the safety of passengers should be specifically included in the taxi licensing regime. Passenger safety can be achieved by taking a number of different measures including choosing a safe vehicle with strong occupant protection. Taxi driver training should also cover what to say to passengers about their own safety such as the obligation to wear seat belts. Taxi drivers should use safe pick up and drop off points so passengers are not exposed to fast flowing traffic when entering or exiting a taxi. Drivers should act in compliance with traffic laws but also in relation to the recommendations linked to the main risk factors mentioned in Part 4 such as speeding or drink/drug driving. Supplementary driver first aid training and first aid kit equipment is required by some national taxi licensing authorities.

### 6.2 A tool for increasing safety: passenger feedback?

Taxi passengers themselves can also take measures to ensure that their own risks are minimised. A checklist is included in the Annex covering different points for example checking for equipment, journey planning including choice of route and how and who to book with. Safety checks also differ according to night and day-time. Passengers are now also increasingly able to give feedback via smart phone applications to taxi companies about the driving and behaviour of their driver with the aim of improving service and feedback. The German Association of Taxi Companies has built up a working group dedicated to improving and enlarging these online feedback portals.<sup>69</sup>

### 6.3 Seat belts and child safety restraints for passengers

According to EU law all vehicle occupants, including passengers in taxis, should wear seat belts. Taxis should be fitted with seat belts. It's also crucial that the seat belts are in a state that can be used, so not hidden away behind seats or cut. EU seat belt and child restraint legislation states that children under 1.35m tall, or travelling in cars fitted with safety devices, must use an approved device for their size. Taller children may use an adult seat belt. However, some EU member states (for example Denmark, Poland, Ireland, Germany) permit an exemption for children from this legislation when they are being transported in taxis. The EU legislation states that, when children are travelling in taxis that are not fitted with restraint systems, they should not occupy the front seat. The exemptions also differ from country to country.

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<sup>69</sup> Deutscher Taxi- und Mietwagenverband e.v. BZP Geschäftsbericht. 2015. Available from: <http://goo.gl/12DuhX>

## 6.4 Carriage of passengers with reduced mobility

Taxi drivers of vehicles designated to carry people with reduced mobility should be trained and equipped to handle wheelchairs without extra charge. The latest OECD report on the topic presented a number of recommendations on how to increase the numbers of accessible vehicles, through better design and easier purchase but also through driver training and special training for dispatch centres on dealing with people with reduced mobility.<sup>70</sup>

## 6.5 Pricing

Taxi fares should be set according to a combination of time and distance to maximise safe behaviour and discourage speeding. A passenger should always ask for a receipt linked to the driver from a taximeter. Fixed fares, for example between the city centre and the airport, can also help bring more transparency and fairness especially for visitors. As fixed fares can also increase speeding from a logical point of view – a taxi meter takes time spent on the trip into account as well – fixed pricing seems to be good practice only for fixed routes such as transfers to airport.



### RECOMMENDATIONS TO EU MEMBER STATES

- Draft a checklist for passengers to take heed of when booking a taxi and publicise it;
- Encourage taxi drivers to carry child safety restraints;
- Include a question on the need for child safety restraints when booking a taxi (be it by phone or with an application).



### RECOMMENDATIONS TO TAXI FLEET MANAGERS AND OWNERS

- Draft a checklist for passengers to take heed of when booking a taxi;
- Equip taxis with child safety restraints when practicable;
- Include a question on the need for child safety restraints when booking a taxi (be it by phone or with an application);
- Give passengers the chance to give meaningful feedback on drivers in relation to key risk factors (speed, seat belts, pick up location).

<sup>70</sup>OECD, 2007, Improving Access to Taxis. Available from: [https://www.iru.org/apps/cms-filesystem-action?file=en\\_publications/en\\_taxi\\_summary2007.pdf](https://www.iru.org/apps/cms-filesystem-action?file=en_publications/en_taxi_summary2007.pdf)

# ANNEXES

This section includes checklists for employers of taxi drivers, taxi drivers, taxi passengers and procurers of taxis.

## Checklist 1 - Employers of taxi drivers

15 question taxi fleet safety audit for employers of taxi drivers <sup>71</sup>		Yes/no	Yes- evidence? No- why?
1	Does your company include fleet safety and safe driving in their organisational policy and objectives and distribute it to all drivers?		
2	Does your company hire drivers based on their experience and awareness of safety issues, safe driving record and performance in a range of driving, personality, lifestyle and well-being assessments?		
3	Does your company induct all new recruits and supervisors using an official program containing fleet safety and safe driving components		
4	Does your company have a vehicle selection and maintenance policy?		
5	Does your company maintain an efficient system of reporting, recording, investigating and monitoring overall fleet, individual driver, and individual vehicle crash involvement (including fatal, injury and damage only incidents), violations and customer service failures to undertake research to identify ways to reduce its crash risks?		
6	Does your company undertake continuous driver assessments to recognise and attempt to correct good/bad driving performance for example on safety and fuel utilisation record?		
7	Does your company support on-going training, education, development programs and driver handbooks to engender safe and effective driving?		
8	Does your company have shift management policies to ensure that drivers have regular shift patterns, do not work excessive hours (>60 per week), do not work back to back shifts and do not undertake second jobs or full time studies?		
9	Does your company have fatigue management programmes in place including regular breaks, allowing for circadian rhythms, regular screening for sleep disorders and counselling drivers on lifestyle decisions, causes and effects of fatigue and recognising the warning signs?		
10	Does your company focus on driver wellbeing issue such as regular checks on eyesight, health, drug and alcohol use, any conflicts for example with passenger and lifestyle issues which may affect the safety of their driving?		
11	Does your company undertake regular driver surveys to obtain feedback and suggestions on how to improve safety?		
12	Does your company currently do anything to educate other road users about the risks involving in taxis and how to reduce them?		
13	Do your company's representative bodies and large organisations (eg the Taxi Council, Black and White and Yellow) include safety as part of their service, and undertake regular audits to police and improve members' performance or in the worst cases prevent them from operating?		
14	Is the current licensing and regulatory system strong and effective enough to ensure that owners and drivers are effectively screened before being allowed to enter the taxi industry and regularly audited to ensure that they can continue to operate?		
15	Do any underlying institutional or economic factors (for example current payment systems, pressure from depots and owners, low wages encouraging long hours, hard driving towards the end of shifts, different driver types or current seatbelt regulations) contribute to crashes involving taxis?		

<sup>71</sup> Taxi Employer Checklist – [www.virtualriskmanager.net](http://www.virtualriskmanager.net)

## Checklist 2 - Taxi drivers<sup>72</sup>

Pre-trip	Yes/no	Yes- evidence? No- why?
Have you done a walk around to check maintenance?		
Are you physically fit and rested?		
Are you seated comfortably and able to reach all equipment to drive safely?		
Are you wearing your seat belt? You can set an example to passengers to also wear their seat belts.		
Are you well rested? Do not drive if you are under the influence of alcohol, drugs or medication.		
Are your passengers belted? Is their luggage safely stowed away?		
<b>Documentation</b> Do you have all the right documentation including: technical inspection certificate, taxi registration number, the necessary insurance documents on board?		
<b>Payment</b> Have you activated your taximeter? Have you selected the right tariff rate for the journey? Have you included the right supplementary charges?		
<b>Route planning</b> Have you chosen the right route? Sometimes a longer route may be safer and quicker? If you are using a GPS is it up-to-date?		
During the trip	Yes/no	Yes- evidence? No- why?
Do you work in conditions which enable you to comply with traffic laws including speed, safe distance, overtaking?		
Do you reduce speed and adapt driving style in case of bad weather such as rain, snow or fog?		
<b>Do you only use designated taxi stands and</b> make sure that you do not obstruct traffic or the vision of other road users when picking up or setting down passengers?		
<b>Engine on – phone off. Do not use your mobile phone when driving.</b>		
After the shift	Yes/no	Yes- evidence? No- why?
<b>Maintenance</b> Do you report to your company any problems with your vehicle, so that the necessary repairs can be scheduled?		

<sup>72</sup> Adapted from IRU Taxi Driver Checklist in all EU Languages, Available from : <https://goo.gl/BcTRzB>

### Checklist 3 - Taxi passengers

Pre-trip	Yes/no	Yes- evidence? No- why?
Do you plan ahead on how you will get home/to the hotel/elsewhere before you are going out?		
Do you ask for advice for safe taxi companies, see if there is a special safety certified scheme? Do you undertake advanced research before visiting a new place?		
When booking do you check if you have requested any necessary extra support such as a child safety restraint or wheelchair access?		
If possible try to travel in a group.		
When you are in the taxi note the company name, code number displayed, driver's name, ID and photograph.		
Check there are seat belts to wear and that you luggage is safely stowed away.		
During the trip	Yes/no	Yes- evidence? No- why?
If you feel at risk due to unsafe driving behaviour (speeding or mobile phone use), you should speak up. If the driver is irresponsible get out at the first safe opportunity.		
Only use designated taxi stands and take care when getting in and out of the taxi.		
Ask for the receipt.		
After the ride	Yes/no	Yes- evidence? No- why?
Give feedback to the taxi drivers' employer on the safety performance of the driver.		

#### Checklist 4 - Procurers of taxi services

Pre-trip	Yes/no	Yes- evidence? No- why?
Have you prepared and adopted a travel policy which tried to avoid travelling by taxi, especially late at night and rather favours public transport travel?		
In line with ETSC recommendations on procurement <sup>73</sup> , set up a call for tender for regular taxi services which includes safety as a criteria for securing a contract. Have you undertaken some advanced research to see if there is a special scheme? If not investigate setting one up together with others who are procuring taxi services.		
During the trip	Yes/no	Yes- evidence? No- why?
Do you give your staff who are using taxis the above passenger check list to improve their safety when travelling by taxi?		
After the ride	Yes/no	Yes- evidence? No- why?
Do you encourage staff to give the possibility to give feedback to the taxi drivers' employer on the safety performance of the driver?		

<sup>73</sup> ETSC PRAISE Report (2015) Reducing Road Risk Through Public Procurement, Available from: <http://goo.gl/QtPeYQ>

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