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Ex-post evaluation study report

Study on the effectiveness and improvement of the EU legislative framework on training of professional drivers

Zoetermeer, 13 October 2014

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Abbreviations

| | |
|--------|--|
| AEBS | Advanced Emergency Brake Systems |
| AT | Austria |
| BE | Belgium |
| BG | Bulgaria |
| CPC | Certificate of Professional Competence |
| CY | Cyprus |
| CZ | Czech Republic |
| DE | Germany |
| DK | Denmark |
| EC | European Commission |
| ECVET | European Credit system for Vocational Education and Training |
| EE | Estonia |
| EQAVET | European Quality Assurance Reference Framework for Vocational Education and Training |
| EQF | European Qualifications Framework |
| ES | Spain |
| EU | European Union |
| FI | Finland |
| FR | France |
| FTE | Full Time Equivalent |
| GR | Greece |
| HGV | Heavy Goods Vehicles |
| HU | Hungary |
| IE | Ireland |
| IT | Italy |
| LDWS | Lane Departure Warning System |
| LGV | Light Goods Vehicles |
| LT | Lithuania |
| LU | Luxembourg |
| LV | Latvia |
| MT | Malta |
| NL | Netherlands |
| PL | Poland |
| PPP | Purchasing Power Parity |
| PT | Portugal |
| RO | Romania |
| SE | Sweden |
| SI | Slovenia |
| SK | Slovak Republic |
| UK | United Kingdom |
| VET | Vocational Education and Training |
| vkm | vehicle kilometre |



0 Executive Summary

0.1 Evaluation context

In the 2011 Transport White Paper (Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system) and the 2010 Communication Towards a European road safety area: policy orientations on road safety 2011-2020, the European Commission emphasises on the need to set a framework to improve road safety. Studies show that human error is by far the main cause of accidents involving trucks. The training of professional drivers contributes to reducing the incidence of human error as a cause of accidents. It helps to address several specific forms the human error can take in road traffic accidents, such as inexperience, improper manoeuvres, braking mistakes, lack of vehicle performance knowledge, lack of knowledge of safety measures and also the awareness of signs of fatigue. Remedies to this could be increased through specific training. Therefore, the first specific objective of the 2010 Communication is to improve the education and training of road users with a view to improve road safety. The Communication emphasises the importance of improving the training system and reiterates the need of post-licence training, which was already expressed in the European Commission's 3rd Road Safety Action Programme in 2003.

0.2 Subject of the evaluation

Directive 2003/59/EC is part of the overall effort to increase the safety on European roads. It defines qualification and training requirements for professional drivers. The Directive was adopted because of the importance and high relevance for all Member States of the qualification and training of drivers engaged in the transport of goods or passengers by road. The purpose of the Directive is to raise the standard of new drivers and to maintain and enhance the professionalism of existing truck and bus drivers throughout the EU through continuous update of their capacities. Raising the level of qualification of drivers is seen as an important element in increasing road safety and the training foreseen by the Directive aims specifically at increasing drivers' awareness of the risks and the ways to reduce them. Moreover, the Directive is meant to help attract more drivers to the freight and passenger transport industries by valorising the profession and by enhancing the free movement of workers within the EU. The standardisation of regulations for training and qualification throughout the EU, intends to ensure equal conditions of competition.

0.3 Evaluation of the Directive

0.3.1 Evaluation purpose

In July 2012 the European Commission published the Report on the implementation of Directive 2003/59/EC, which constituted a first ex-post assessment of the implementation of the Directive. The report contained a number of findings on the basis of which further improvements of the Directive will be examined. However, in order to obtain a complete picture, the European Commission needs additional data, which were not included in the report.

The general purpose of this ex-post evaluation study is to provide the European Commission with an independent and unbiased evaluation of Directive 2003/59/EC, its impacts on road safety and the economic, social and environmental effects. The ex-



post evaluation examines the relevance, effectiveness, coherence, utility, efficiency and EU added value of the Directive.

0.3.2 Evaluation approach

The Consortium applied a range of methodological tools to gather the necessary quantitative and qualitative evidence for its analysis of the key evaluation issues. These are outlined below.

Desk research

Documentation obtained from the Commission and other sources was analysed in order to deepen the Consortium's understanding of the Directive and its context, and to assist in developing the most appropriate methods for investigation.

A literature review was executed in the field of road safety, the involvement of the different vehicle categories in accidents, and the causes of accidents. Furthermore, the literature review concentrated on training of drivers and its effects on road safety, fuel use and emissions.

Studies on the implementation of the Directive in the Member States were used to make a first inventory of how the different elements of the Directive are implemented in the Member States.

Public Consultation¹

The results of the Public Consultation were analysed to get an insight in the opinions of stakeholders, in the main problems related to the implementation of the Directive and in possible improvements.

Interviews

Interviews were held with a number of stakeholders in order to deepen the Consortium's understanding of the Directive and its context.

Questionnaire surveys

The Consortium developed questionnaire surveys to collect detailed information on the implementation of the Directive in the Member States, and to collect quantitative information on certain elements related to the Directive. The questionnaires were distributed among the DG-MOVE CPC Committee Members. A questionnaire survey on problems with recognition of training undergone in other Member States was distributed among national trade unions.

0.4 Conclusions

Relevance

- The Consultant concludes, given the involvement of HGVs and busses and coaches in accidents and given their relative risks when taking into account the vehicle-kilometres made, and given the relative low risk of LGVs that the scope in terms of drivers covered is relevant and sufficient to ensure increased road safety. This conclusion is partly supported by the Public Consultation that showed a preference to extend the scope of the Directive in terms of drivers covered, and the stakeholder conference that concluded improved implementation should have priority over extension of scope.

¹ A public consultation was launched by DG-MOVE in July 2013 to collect stakeholders' views on the various aspects of the Directive and their impact. The consultation process was carried out through an online questionnaire comprising of 28 questions that addressed various issues related to the implementation and current operation of the Directive's mechanisms. The public consultation has concluded in October 2013.

- In terms of level playing field, the defined scope in terms of drivers covered is relevant and sufficient given the important international dimension, and therefore international competition, of transport with HGVs and busses and coaches.
- The Consultant concludes, on the basis of the finding that human error is the main cause of traffic accidents, and that only certain training (danger recognition) has a potential positive effect on road safety, while other training seem to have no effect, that the defined scope in terms of training and testing provisions, and in terms of topics, duration, frequency etc. is only partial relevant and sufficient to ensure road safety.
- In terms of level playing field, the training and testing provisions resulted in many different training and testing systems, and a wide variety of content of training programmes, and a wide variety of costs related to training and testing. The Consultant concludes that the defined scope in terms of training and testing provisions is relevant but not sufficient to ensure a level playing field

Effectiveness

- The Consultant concludes that the Directive was implemented in the Member States without major problems. Main problems encountered were difficulties in the interpretation of exemptions, legal uncertainty regarding minimum age, and problems with mutual recognition of completed and partial training undergone in another Member State. There is insufficient evidence to justify conclusions on fraud and abuse.
- The Directive did not contribute to the attractiveness of the sector by enhancing requirements for professional competence due to the additional training and financial burden, as well as the lack of prospect to receive a recognized diploma at the end of the training. But the provisions on minimum age of the Directive contributes to making the profession more attractive because of the improved link with other schooling.
- The Consultant concludes that the Directive in principle contributes to ensuring free movement of drivers within the EU road transport sector, but because of problems with recognition of partial and completed training undergone in a foreign country the Directive was only partial successful.
- The Directive contributed only marginally to defining standards of professional competence since Annex I fails to accommodate the individual needs of the drivers, its subject coverage has not been updated in the past decade, in most Member States there are no national syllabi in place to foster the definition of standards of professional competence, and an efficient and effective quality assurance system is missing.
- The Consultant concludes that, given the late implementation in terms of deadlines for periodic training, it is too early to assess whether the Directive has contributed to improving road safety on the basis of road accident statistics. On the basis of training and testing provisions and the content of Annex 1, which is not in line with the results of literature review on effects of training, the Consultant concludes that the Directive marginally improved road safety.
- The Consultant concludes that the Directive on the one hand has made training obligatory for all professional drivers in the EU, contributing to a level playing field. At the same time, due to differences in implementation of the Directive in the Member States, situations of non-level playing field have emerged. Given the calculated cost increase for enterprises of 0.1% to 0.2% of total transport costs, the Consultant concludes that the relative impact is limited.
- It can be concluded, that given the fact that before the Directive only 5% to 10% of drivers had any form of training and now almost all new C and D-licensed drivers



need to have knowledge of topics such as social regulations and regulations on the carriage of goods and passengers, that the Directive contributed to better awareness of other rules in the field of road transport, including knowledge of the transport of dangerous goods. The conclusion refers to new drivers because they need to cover all topics of Annex 1, while periodic training does not have to cover all topics.

- Overall the Consultant concludes that the Directive was partial effective in reaching its objectives.

Coherence

- In light of the foregoing, Directive 2003/59/EC is partially in line with the provisions of Directive 2006/126/EC. Both Directives apply to professional drivers and share the common objective of improving road safety. Nevertheless, differences exist on the minimum age requirements for the entry to the profession, which gives rise to conflicting interpretations and applications by Member States. The content of the training of the two Directives also overlap with respect to certain subjects, which creates a degree of inefficiency in the training of professional drivers.

Utility

- Most of the provisions regarding vehicle technology of Annex 1 of the Directive are still relevant for driver training, although a revision is needed to update some technical issues (outdated brake systems, transmissions systems, EURO norms).
- It can be concluded that the provisions are still relevant, but need updating to take into account new technological developments, and instruction methods

Efficiency

- The costs increase related to the Directive is estimated at € 1,791 million per year or € 497 per driver per year.
- With regard to the proportionality of costs borne by the different stakeholders, it can be concluded that almost half of the costs are borne by enterprises (44%). Public administrations recover most of their costs through fees charged to enterprises and drivers. Costs for trainees (45%) seems particularly high for initial training and testing which may present a barrier to entry to the profession.
- The potential benefits of € 7,424 million to € 10,740 million per year in the form of reduced costs of traffic accidents, reduced fuel use and reduced emissions outweigh the costs related to the Directive. To realise the potential benefits, training needs to be focused on reduced fuel use and danger recognition.
- The Consultant concludes that costs are proportionate to the potential results in terms of quality level of professional competence.
- At company level, the potential savings described are limited to savings in fuel costs, and possibly some savings in insurance costs and maintenance because of fewer accidents. Savings in reduced fuel use are estimated at € 4,032 million to € 6,862 million per year, or at € 1,119 to € 1,905 per driver per year. This more than outweighs the compliance costs for enterprises of € 217 per driver per year. These savings can be achieved by all enterprises, regardless of size, and therefore also by SMEs.
- The Consultant concludes that other potentially relevant EU level initiatives would most likely not have reached the same level of efficiency as the Directive in terms of the level of professional competence, because these initiatives are less comprehensive (e.g., Directive 2005/36/EC), depend to a large extent on a voluntary steps of the competent authorities (e.g., the EQF), or do not (or only

partially) cover topics relating to professional competence (e.g., Directive 2006/126/EC on driving licence).

EU added value

- The EU has a central role to play in the training of professional drivers since adopting relevant legislative measures regulating such training on EU level brought added values in terms of improved labour mobility, notwithstanding current problems with recognition of completed and partial periodic training, and harmonized training requirements across the Member States. It is necessary to regulate the training at EU level because if it was left at the discretion of the Member States, varying or no training requirements would have been introduced.



Part 1 Introduction and context



1 Evaluation of the Directive - Overview

1.1 Introduction

In view of the overall effort to increase traffic safety on European roads, this ex-post evaluation analyses the effects of Directive 2003/59/EC of the European Parliament and of the Council of 15 July 2003 on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers.

The Directive establishes the mandatory initial qualification and periodic training requirements for drivers who are nationals of Member States or who are working for an undertaking based in the European Union. The training is organised by training centres approved by the Member States. The testing of initial qualification, when applied, is organised by a dedicated entity under supervision of competent authorities in the Member States. Compliance with the qualification and training requirements is attested by a certificate issued to drivers, called the Certificate of Professional Competence (CPC).

The ex-post evaluation is based on information obtained from research literature, public consultation, stakeholder interviews and survey questionnaires. The ex-post evaluation provides conclusions as to whether the key objectives of the Directive were achieved, and provides recommendations for further improvements of the Directive.

1.2 The objectives of the Directive

Directive 2003/59/EC is part of the overall effort to increase the safety on European roads. The Directive was adopted because of the importance and high relevance for all Member States of the qualification and training of drivers engaged in the transport of goods or passengers by road. The purpose of the Directive is to raise the standard of new drivers and to maintain and enhance the professionalism of existing truck and bus drivers throughout the EU through continuous update of their capacities. Raising the level of qualification of drivers is seen as an important element in increasing road safety and the training foreseen by the Directive aims specifically at increasing drivers' awareness of the risks and the ways to reduce them. Moreover, the Directive is meant to help attract more drivers to the freight and passenger transport industries by valorising the profession and by enhancing the free movement of workers within the EU. The standardisation of regulations for training and qualification throughout the EU, intends to ensure equal conditions of competition.

The general objective of the Directive can be translated into four specific objectives:

- 1) Ensuring free movement of drivers within the EU road transport sector.
- 2) Defining standards of professional competence and raising the consideration of the profession.
- 3) Improving road safety and safety of drivers.
- 4) Setting a level playing field for drivers employed by an undertaking in the EU.

1.2.1 Provisions of the Directive

The Directive applies to drivers of vehicles for which a C and/or D driving licence is needed. The Directive requires compulsory initial qualification and periodic training for such professional drivers. So, besides holding a driving licence, professional drivers need to hold a 'certificate of professional competence' (CPC), obtained by completing initial qualification or periodic training.



The initial qualification applies to all new drivers and the 5-yearly periodic training of in total 35 hours to all professional drivers. The initial qualification had to be implemented in the EU member states for all new bus drivers by 2008 and for all new truck drivers by 2009. Drivers with acquired rights will have until 2015/2016 respectively to complete the periodic training according to the timetable adopted by each Member State. According to the Directive a number of categories of drivers, such as armed forces, fire and civil defence, are exempt of CPC qualification.

The Directive allows Member States to choose a system of initial qualification out of two options: initial CPC through a system of course attendance and a test or initial CPC through a system of tests only.

As proof of the CPC, Member States' competent authorities mark Code 95 either on the driving licence, or on the driver qualification card drawn up in accordance with the model shown in Annex II of the Directive. The code 95 issued by Member States shall be mutually recognised. Training topics are defined in Annex 1 of the Directive.

1.2.2 *Evaluation of the Directive*

In July 2012 the European Commission published the Report on the implementation of Directive 2003/59/EC, which constitutes a first ex-post assessment of the implementation of the Directive. The report contained a number of findings on the basis of which further improvements of the Directive will be examined. However, in order to obtain a complete picture, the European Commission needs a sound and reliable evaluation of the Directive.

The general purpose of this ex-post evaluation study is to provide the European Commission with an independent and unbiased evaluation of Directive 2003/59/EC, its impacts on road safety and the economic, social and environmental effects in 27 Member States².

First, the current report intends to provide a background analysis of the implementation of certain provisions of the Directive:

- Define for each Member State to which vehicles and drivers the provisions of the Directive are applied to and compare the system of exemptions in the different Member States.
- Analyse how the initial qualification training/testing and periodic training are implemented in the various Member States.

Secondly, the ex-post evaluation examines the relevance, effectiveness, coherence, utility, efficiency and EU added value of the Directive.

Based on these elements, the report provides finally the conclusions and recommendations.

1.3 **Structure of the ex-post evaluation report**

Chapter 2 presents a contextual analysis, with an overview of relevant facts, figures and developments related to the road transport market.

Chapter 3 describes the methodology used to collect information, and presents the approach, data limitations and first findings of the information collecting process.

² The ex-post-evaluation does not cover Croatia, because Croatia joined the EU in 2013 and started applying the Directive only thereafter.

Chapter 4 gives an overview of the transposition and implementation of the Directive in the Member States, and analyses the results if relevant for the evaluation of the impact of the Directive.

Chapter 5,6 and 7 analyse respectively the economic, social and environmental impact of the Directive.

Chapter 8 analyses the alignment of the Directive with other EU legislation and EU policy, and in chapter 9 EU-added value is analysed.

Chapter 10 presents the conclusions, structured according to the following evaluation questions, based on the criteria relevance, effectiveness, coherence, utility, efficiency and EU added value:

- To what extent is the defined scope (in terms of drivers covered, training and testing provisions, in terms of topics, duration, frequency, etc.) relevant and sufficient to ensure increased road safety and a level playing field?
- What are the main problems with the implementation of the Directive in Member States? Is there any evidence of existence of abuse, non-compliance, fraud or non-implementations, and if relevant, what are the extent and the characteristics of fraudulent practises?
- To what extent do the provisions establishing initial/periodic training and/or testing allow for increased mutual recognition of training and certification?
- To what extent has the Directive contributed to an improved consideration of the profession of driver and to the attractiveness of the sector?
- To what extent has the Directive contributed to the achievement of its objectives in terms of:
 - Ensuring free movement of drivers within the EU road transport sector?
 - Defining standards of professional competence?
 - Improving road safety and safety of drivers?
 - Setting a level playing field for drivers employed by an undertaking in the EU?
- Which factors have hindered the achievement of objectives of the Directive?
- To what extent has the Directive created unintended effects, such as an unlevel playing field for drivers?
- How has Directive 2003/59/EC contributed to a better awareness of and compliance with other rules in the field of road transport, such as for example Regulation 561/2006/EC on the harmonisation of certain social legislation relating to road transport or Directive 2008/68/EC on the inland transport of dangerous goods?
- To what extent is the Directive in line with provisions of Directive 2006/126/EC on driving licences? What are the differences, overlaps or contradictions?
- Given technological developments, to what extent are the provisions of the Directive still relevant, inter alia in the field of e-learning or regarding the use of simulators or also the use of technological devices such as smart tachographs or on board technologies?
- Are costs proportionate to results in terms of quality level of professional competence? Are costs reasonable for all stakeholder' groups, including SMEs and micro-enterprises?
- To what extent would it be possible to achieve the same quality level of professional competence more efficiently by other means?
- To what extent has the EU a role to play in the training of professional drivers of trucks and buses. Why should training be regulated at EU level, instead of leaving the decision up to each Member State?



2 Contextual analysis

2.1 Driver training before Directive 2003/59/EC

Under Council Regulation (EEC) No 3820/85 of 20 December 1985 on the harmonisation of certain social legislation relating to road transport, OJ L 370 of 31.12.1985, now amended by Directive 2003/59/EC, drivers of vehicles intended for the transport of goods having an authorized maximum weight of over 7.5 tonnes and entering the profession at an age lower than 21 were required to hold a certificate of professional competence confirming that he/she has completed a training course in conformity with Community rules on the minimum level of training for road transport drivers (see Article 5(1)(b) of Regulation 3820/85). These Community rules were enshrined in Directive 76/914/EEC on the minimum level of training of some road transport drivers. The same training requirement was a condition for non-experienced drivers engaged in the carriage of passengers on journeys beyond a 50 kilometre radius from the place where the vehicle is normally based (see Article 5(2) of non-consolidated Regulation 3820/85).

The following table gives an overview of the situation before and after Directive 2003/59/EC.

Table 1 CPC requirements before and after Directive 2003/59/EC

| Age | Vehicle type | Vehicle category | non-consolidated Council Regulation (EEC) No 3820/85 | Directive 2003/59/EC |
|------|--------------|------------------|--|----------------------|
| <21 | Truck | 3.5-7.5 | No CPC needed | CPC needed |
| | Truck | >7.5 | CPC needed | CPC needed |
| | Bus | | Not applicable* | CPC needed*** |
| ≥ 21 | Truck | 3.5-7.5 | No CPC needed | CPC needed |
| | Truck | >7.5 | No CPC needed | CPC needed |
| | Bus | | CPC optional** | CPC needed**** |

*Drivers cannot drive passengers if they are under the age of 21.

** CPC is one of the conditions that grants authorisation to a driver to engage in the carriage of passengers on journeys beyond a 50 kilometre radius from the place where the vehicle is normally based. The driver should only comply with this condition if he does not fulfil one of the following conditions:

(a) he must have worked for at least one year in the carriage of goods as a driver of vehicles with a permissible maximum weight exceeding 3,5 tones;

(b) he must have worked for at least one year as a driver of vehicles used to provide passenger services on journeys within a 50 kilometre radius from the place where the vehicle is normally based, or other types of passenger services not subject to this Regulation, provided the competent authority considers that he has by so doing acquired the necessary experience;

*** Following the procedure pursuant to Article 6 (1) of Directive 2003/59/EC on initial qualification certification

**** Following the procedure pursuant Article 6 (2) Directive 2003/59/EC on accelerated initial qualification certification

As a result of this legal framework, prior to the enactment of Directive 2003/59/EC, only very few professional drivers were subjected to training requirements under Regulation 3820/85. In most Member States only 5% to 10% of professional drivers received a specialized training.³ The training requirements were subjected to the minimum standards established under Directive 76/914/EEC.⁴

³ European Commission Press Release, 'Road safety: EU professional drivers finally required to undergo professional training', IP/03/1245, 15 September 2003.

⁴ Council Directive 76/914/EEC of 16 December 1976 on the minimum level of training of some road transport drivers, OJ L 357 of 29.12.1976.



Member States had the possibility to require more extensive training than provided in Directive 76/914/EEC. Only six Member States had some form of a training or testing system in place: mandatory training systems in France and Hungary, an optional training followed by a mandatory test in The Netherlands, a voluntary training system in Germany in combination with a three year compulsory training for young drivers under the age of 21, a mandatory training in Luxembourg for bus drivers, and between 1998 and 2002 a mandatory training in Bulgaria for international drivers.⁵ In all other Member States, there was no separate training scheme for professional drivers, other than the driving licence training.

The characteristics of the training varied significantly across the six Member States. The French system, which existed since 1995, was built on a mandatory training based on subjects similar to those set out in Annex I to Directive 2003/59/EC⁶. The Hungarian system comprised of a five-day compulsory initial training which was based on separate subject curricula depending on the category of the driving licence sought, and whether it related to national or international transport. In the Netherlands, a training scheme was in place since 1975. Every driver born after 30th of June 1955, and employed by a Dutch haulier had to have a certificate of vocational training. The training was non-compulsory. Upon successful completion of a mandatory test, the certificate was issued to the driver. In Germany, a non-compulsory apprenticeship of three years was offered. This apprenticeship was made mandatory for young drivers under the age of 21. In Luxembourg, a compulsory training was only envisaged for drivers of public transport busses. In Bulgaria, one week training was mandatory for drivers engaged in international transport.

Conclusion

Before Directive 2003/59/EC only drivers of vehicles intended for the transport of goods having an authorized maximum weight of over 7.5 tonnes and entering the profession at an age lower than 21 were required to hold a certificate of professional competence. As a result, prior to the enactment of Directive 2003/59/EC, only very few professional drivers were subjected to training requirements under Regulation 3820/85. It is estimated that only 5% to 10% of professional drivers in EU Member States received a specialized training.

The Consultant concludes that prior to the Directive only very few drivers were trained in addition to the training related to acquiring a driving license, and of this few drivers only drivers in France and Hungary received periodical training.

2.2 Political context

In the 2011 Transport White Paper (Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system)⁷ and the 2010 Communication Towards a European road safety area: policy orientations on road safety 2011-2020⁸, the European Commission emphasises on the need to set a framework to improve road safety. Human error is by far the main cause of accidents involving trucks⁹. The training of professional drivers contributes to reducing the incidence of human error as a cause of accidents. It helps to address several specific forms the human error can take in road traffic accidents, such as inexperience, improper manoeuvres, braking mistakes, lack of vehicle performance knowledge, lack

⁵ IRU/ETF Survey (2011), p. 7.

⁶ Interview with UITP

⁷ COM(2011) 144 final

⁸ COM(2010) 389 final

⁹ DaCoTa, 2012, Traffic Safety Basic Facts 2011: Heavy Goods Vehicles and Buses; IRU, 2007, *Scientific Study "ETAC" European Truck Accident Causation*

of knowledge of safety measures and also the awareness of signs of fatigue and remedies to it could be increased through specific training. Therefore, the first specific objective of 2010 Communication is to improve the education and training of road users with a view to improve road safety. The Communication emphasises the importance of improving the training system and reiterates the need of post-licence training, which was already expressed in the European Commission's 3rd Road Safety Action Programme in 2003¹⁰. The Action Programme also stressed the importance of life-long road user training and information to raise awareness about the risk of road accidents, the consequence of unsafe behaviour, enforcement legislation and compliance with key safety rules.

Furthermore, the EUROPE 2020 strategy¹¹ for smart, sustainable and inclusive growth sets mutually reinforcing priorities for all sectors of the economy including the road transport sector: smart growth with an economy based on knowledge and innovation, where life-long learning and the capacity to adapt to technological innovations play an important role, sustainable growth by promoting a more resource efficient, greener and more competitive economy and inclusive growth by fostering a high-employment economy. The objective of environmental sustainability is also reflected in the White Paper on the future of transport policy through the target to reduce by 60% CO₂ transport emissions by 2050. Fuel efficient driving might substantially contribute to a company's fuel savings and thus to greater profitability and lower CO₂ emissions. Therefore, one of the White Paper initiatives contributes to this target through the further increase in the uptake of eco-driving, by promoting its "dissemination through various projects" and by considering to "Include eco-driving requirements in the future revisions of the driving licence directive and take steps to accelerate the deployment of ITS applications in support of eco-driving".

2.3 Economic context

2.3.1 Introduction

To facilitate the evaluation of the Directive, this paragraph aims to describe the economic context related to the road transport sector. First, the share of cross-border operations is analysed, taking into account the different market segments. Secondly, the impact of the economic crisis on the road transport sector is analysed in view of its possible influence on the impact of the Directive on the sector. Furthermore, issues related to the free movement of drivers is described.

2.3.2 Cross-border operations in road transport

In order to evaluate the impact of the Directive it is essential to have an insight in the international dimensions of the road transport sector. Such an insight is important to assess the added value of EU initiatives in the field of training, to assess the relevance of the scope of the Directive in terms of drivers and vehicles covered, and to assess the impact on level playing field and its consequences.

EU initiatives in the field of training of drivers could be justified if, due to a large share of international transport, in EU countries many drivers from other EU-countries are active on national roads. In such a situation, a country may be hesitant to take national initiatives in the field of mandatory training for its drivers. For example, Germany is an important transit country within the EU, its bilateral transport relations are dominated by foreign hauliers, and Germany is the country with the largest share of cabotage. As a consequence, on German roads many foreign drivers are active. In 2013 38% of the kilometres made on German toll roads by trucks were made by

¹⁰ COM(2003) 311 final

¹¹ COM(2010) 2020 final



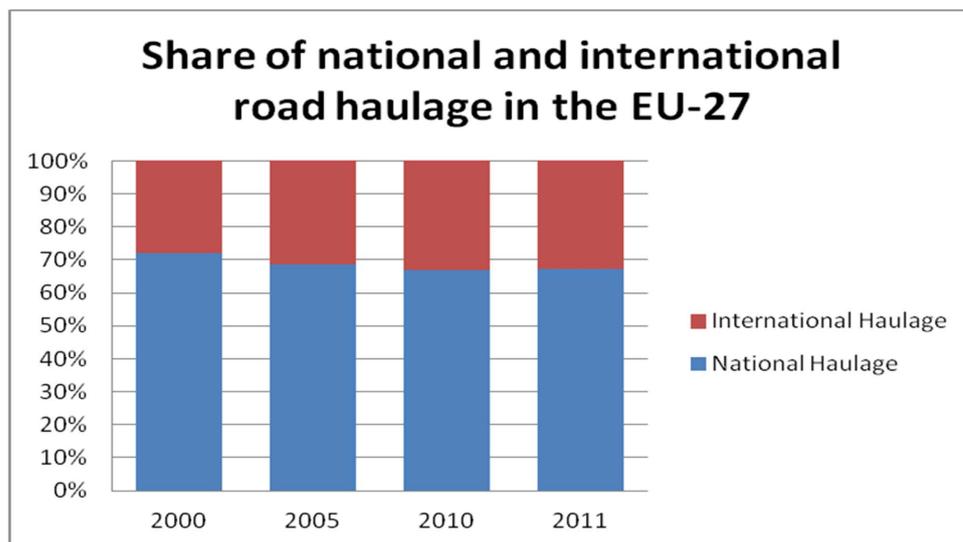
foreign vehicles¹². A mandatory training system for German drivers only would therefore be less effective. Such a system would also have an impact on level playing field.

This paragraph presents an analysis of the international dimensions of the road transport market, taking into account the different market segments in terms of vehicles used.

Heavy Goods Vehicles (HGV)¹³

Figure 1 shows the share of national and international road haulage in total road haulage transport within the EU-27.¹⁴ National haulage here indicates the domestic haulage carried by HGV vehicles registered in that Member State. International haulage refers to the cross-border haulage carried out by HGV vehicles registered in one of the Member States.

Figure 1 Share of national and international road haulage on the basis of tkm¹⁵



Source: Eurostat (2013), *EU Transport in Figures: Statistical Pocketbook 2013*

In 2011 international haulage represented 32,6% of total road haulage in the EU-27, while national haulage amounted to 67,4%. This indicates that a significant part, that is, one-third of the total road haulage in the EU-27 has a cross-border aspect.

The 2011 statistics also point to the growing share of international road transport. In 2000, prior to the enactment of Directive 2003/59/EC, international haulage represented merely 28% of total road haulage.

Light goods vehicles (LGVs)¹⁶

EUROSTAT has no figures on the share of LGVs in international road haulage. According to the report "Light Goods Vehicles in the Road Transport Market of the European Union", Panteia 2010, on average the maximum share of LGVs in international goods transport is less than 5% of the total market in tonnes, and even less when measured in ton-kilometres.

¹² Mautstatistik, Bundesamt für Güterverkehr (BAG), 2014

¹³ Vehicles with maximum permitted weight ≥ 3.5 tonnes

¹⁴ Eurostat (2013), *EU Transport in Figures: Statistical Pocketbook 2013*

¹⁵ Tkm = ton-kilometres

¹⁶ Vehicles with maximum permitted weight below 3.5 tonnes

Busses and coaches

EUROSTAT has no figures on the share of busses and coaches in international road transport. Our analysis shows an estimated share of 8%. This figure is based on 2005 data showing that bus and coach travel combined accounted for 523 billion passenger kilometres¹⁷, and the estimation that international bus and coach travel within the EU-27 amounted to 43.5 billion passenger kilometres¹⁸.

Taxis

In order to be able to evaluate the scope of the Directive in terms of drivers covered, it would also be necessary to assess the international dimension of taxi transport. This would allow an assessment of the added value of EU initiatives in the field of training of taxi drivers. Unfortunately, EUROSTAT has no figures on the share of taxi transport in international road transport. Given the characteristics of taxi transport, which mainly takes place in urban areas over short distances, the Consultant assumes that the international dimension of taxi transport is neglectable, and local or national initiatives in the field of training of taxi drivers are more obvious than EU initiatives.

Conclusions

The international dimension in the road transport sector is significant. International goods road transport with HGVs represents about 33% of total road goods transport in the EU-27. The share of LGVs in international goods transport is smaller, and estimated at less than 5% of the total market. The share of international transport with busses and coaches in total road passenger transport is estimated at 8%, mainly related to coaches. The share of international taxi transport in total passenger transport is neglectable.

The implication of these findings is that on roads in EU-countries many foreign drivers from other EU-countries are active. This fact could make countries hesitant to take national initiatives in the field of driver training for nationals, because such national measures would not affect foreign drivers and thus would be less effective. Furthermore, such national initiatives in the field of mandatory driver training would create an unlevel playing field compared to foreign drivers with no mandatory training. It can be concluded that initiatives at EU-level for the HGV and bus/coach market segments could have added value.

2.3.3 Economic crisis

In this paragraph an analysis is made of the impact of the economic crisis on the road transport market, in order to assess whether this has influenced the impact of the Directive on the road transport market.

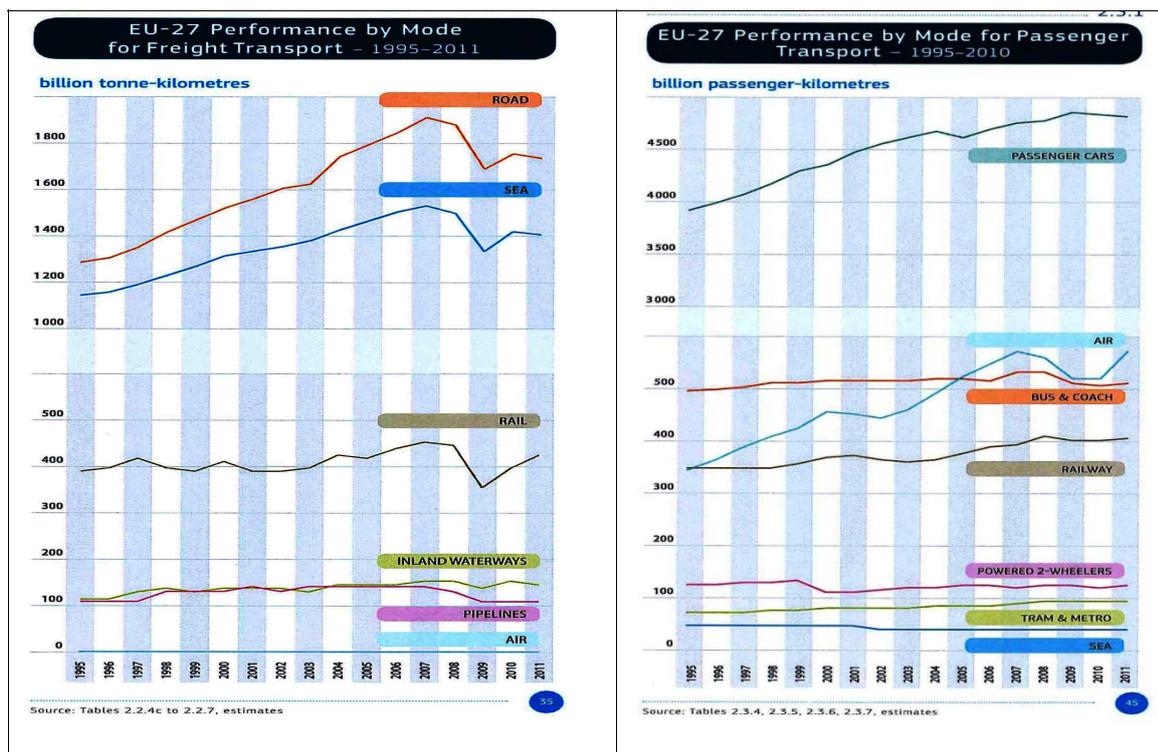
The publication "EU Transport in Figures - Statistical Pocketbook 2013" gives an overview of the developments of the passenger transport market and the goods transport market.

¹⁷ EC statistical pocketbook 20013

¹⁸ NEA (2006), Selected road transport data, A study to update road transport statistics in Europe, Final report on passenger transport.



Figure 2 Transport growth in the EU-27



The figure shows that especially the development of the goods transport market between 2007 and 2009 was negative.

The negative development of the market had its implications on employment. According to IRU figures, a total of 140,000 jobs in EU road freight transport are currently at risk or have already been lost since the end of 2007. As of January 2009 an estimated 16,000 jobs were lost in Spain, and 10,000 jobs have been lost in France and 4,000 in Belgium¹⁹.

The analysis shows that that the economic crisis might have influenced the impact of the Directive in terms of increasing the attractiveness of the profession, and the especially the attractiveness of the profession for young students.

Another aspect of the economic crisis possibly influencing the impact of the Directive was mentioned by IRU during the stakeholder interviews. The IRU indicated that the struggle to survive in the road transport market distracted the attention of both companies and governments away from the successful implementation of the Directive. The focus of companies to receive good quality training for their drivers might have been reduced because of the difficult economic circumstances in which most companies were.

It can be concluded that the economic crisis had its influence on the road transport sector, and especially regarding the development of employment. The recent signs indicating a slow economic recovery in Europe have been taken into account in the analysis, but given the time lag of the used statistical data in the analysis the influence of this positive economic effect on the impact of the Directive is not measurable yet.

¹⁹ http://www.iru.org/index/en_economic-crisis2009



2.3.4 Free movement of drivers

One of the objectives of the Directive is to enhance the free movement of workers within the EU. To be able to evaluate the Directive in this field, this paragraph presents some issues related to the free movement of drivers.

The free movement of workers is a fundamental European principle enshrined in the Treaties and in recent years the shortage of manpower in the road haulage sector was solved in part by drivers from the new Member States moving on a temporary basis to old Member States. In a number of Member States, local bus/coach operators have taken advantage of the free movement of workers to employ drivers who were previously resident in other Member States. For example many Polish drivers moved to the United Kingdom where the wage levels were higher. This has led to a shortage of drivers in Poland, which has in turn prompted Polish operators to recruit drivers from Ukraine²⁰. The Austrian Economic Chamber, Department for Education and Training, estimates that of the total number of drivers in Austria around 20 % are from neighbouring countries. Also in Spain many drivers from eastern parts of the EU were recruited by Spanish firms, though due to the crisis in recent years several drivers have gone back to their home country²¹.

Also, the report on shortage of drivers²² concludes that in recent years the supply of drivers in the 15 old Member States has been augmented by drivers from the 12 new Member States²³, indicating the importance of the mobility of drivers and indicating that during these years apparently there were no significant barriers for the mobility of drivers. As explained in paragraph 2.1, in the period before the Directive drivers could work everywhere within the EU solely on the basis of their driving licence, except in France and Hungary. The influence on the free movement of drivers of the Directive will be discussed in the chapter on economic impact.

2.3.5 Conclusions

The analysis in this paragraph leads to the following findings and conclusions:

- International goods road transport with HGVs represents about 33% of total road goods transport in the EU-27. The share of LGVs in international goods transport is less than 5% of the total market. The share of international transport with busses and coaches in total road passenger transport is estimated at 8%, and is mainly related to coaches. The share of international taxi transport in total passenger transport is neglectable.
- The implication of these findings is that on roads in EU-countries many foreign drivers from other EU-countries are active, and especially in the segments HGV and buses and coaches.
- This situation could make countries hesitant to take national initiatives in the field of driver training for nationals, because such national measures would not affect foreign drivers. Furthermore, such national initiatives in the field of mandatory driver training would create an unlevel playing field compared to foreign drivers with no mandatory training.
- The conclusion is that because of the international dimension of the road transport sector, initiatives at EU-level could have added value for the market segments HGVs, busses and coaches.
- The economic crisis, with its reduction of transport volumes and its negative influence on employment in the sector, is expected to have influenced the impact

²⁰ Steer Davies (2009), Study of passenger transport by coach, Final Report

²¹ Interview with MOVING, an international road transport training association.

²² European Parliament (2009)

²³ Report of the High Level Group on the Development of the EU Road Haulage Market (2012).



of the Directive in terms of lowering the attractiveness of the profession and, according to stakeholders, lowering the attention of enterprises for the quality of training courses.

- In recent years the supply of drivers in the 15 old Member States has been augmented by drivers from the 12 new Member States²⁴, indicating the importance of the mobility of drivers and indicating that during these years apparently there were no significant barriers for the free movement of drivers.

2.4 Social context – road safety

2.4.1 Introduction

This paragraph presents the social context in which the Directive is evaluated in terms of road safety, by analysing the involvement in accidents of vehicles and the different vehicle categories. A relatively large share of involvement in accidents of certain vehicles would underline the relevance of policy initiatives to reduce the number of accidents in which such categories of vehicles are involved.

2.4.2 Involvement in accidents - HGVs

Accident statistics²⁵ show that in 2010 in the EU-27 (excluding Bulgaria, Cyprus, Malta and Slovakia) 4,603 fatalities occurred in accidents where a Heavy Goods Vehicle (HGV) was involved. This represents more than 15% of the total number of fatalities²⁶. Compared to the number of fatalities in HGV vehicles from accidents, 2,4% of the total number of fatalities, this is indicative of the impact of HGV on other road users during accidents.

One measure of safety risk is the relative fatality rate: the number of fatalities²⁷ divided by billion vehicle kilometres ran by HGV²⁸. When looking at relative fatality rates for different countries we find that the rate varies over countries, ranging between 2.42 and 116.92 fatalities/billion vkm²⁹ (consortium calculation based on available data possible for Belgium, Czech Republic, Spain, France, Hungary, Austria, Poland, Slovenia, Finland, Sweden and the United Kingdom). These values are different from the ones posted in the ETSC PIN Flash No24³⁰: calculated values here are smaller. This is mainly due to the use of a different reported source for the number of HGV vkm ran. However, the same general finding remains valid: HGV's pose a higher relative risk than most other modes. Given the nature of HGV, who carry higher kinetic energy into an accident than vehicles with lower masses at similar speed, this is not unexpected. We have to point out that available statistics are rather limited: only a selection of member states has both sufficient data available to calculate the relative risk. With the exception of the Czech Republic (insufficient data), France and Slovenia, an improving trend in relative risk can be observed.³¹

The following figure shows road deaths in collisions with HGV per billion vehicle kilometres travelled by these vehicles.

²⁴ Report of the High Level Group on the Development of the EU Road Haulage Market (2012).

²⁵ CARE database

²⁶ See Table 31

²⁷ CARE database (2001-2010). The ETSC PIN Flash No24 also reports figures up to 2011 but this database is built from the Care database, added with individual Member State information. For consistency, we follow the CARE database and the reports available on the statistics section on the road safety site of the European Commission: http://ec.europa.eu/transport/road_safety/specialist/statistics/index_en.htm.

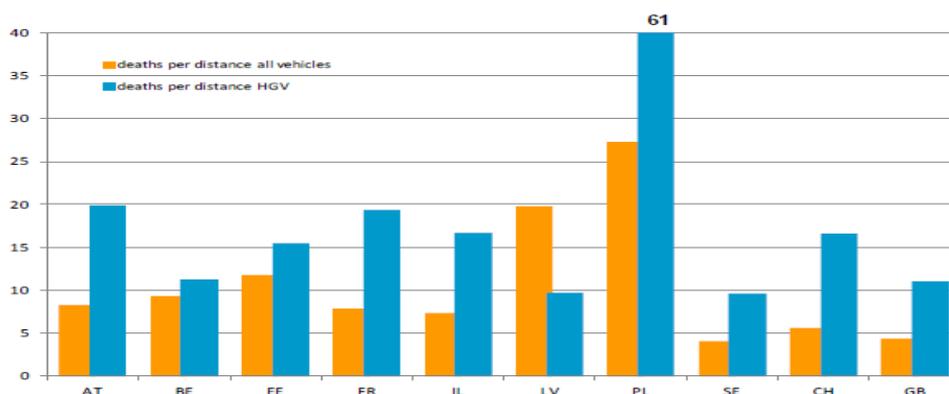
²⁸ EUROSTAT: motor vehicle movements on national territory (irrespective of registration country)

²⁹ See Table 25: Absolute and relative fatality risk HGV

³⁰ ETSC PIN Flash No24. Towards safer transport of goods and passengers in Europe

³¹ See Table 26

Figure 3 Road deaths in collisions with HGV per billion vehicle kilometres travelled by these vehicles, and comparison with corresponding rate for all vehicles – time period 2008-2010



Source: ETSC: Road Safety Performance Index. Towards safer transport of goods and passengers in Europe.

On the basis of these figures ETSC concludes that “In terms of the number of deaths per distance travelled by HGVs, the data from the countries that collect it shows that HGVs are generally less safe than the country average for the entire vehicle fleet, with Latvia being the only exception. In Austria, France, Israel, Sweden, Switzerland and Great Britain HGVs are involved in more than twice as many fatal collisions per billion km travelled as the average vehicle. While the demand for transport of goods is likely to either remain constant or increase in the future, the data in fig. 4 should serve as a reminder that road safety policies should not lose focus on HGVs.”³²

On a European level, the absolute number of HGV involved fatalities has been reduced by almost 42% over the period of 2001 to 2010³³. A steady reduction rate over the period 2003 up to 2007 can be observed (between -3.1% and -6.1%). Over the years 2008 and 2009, this picks up strongly with a maximum yearly reduction ratio of -17.85%. By contrast, a slight increase is observed for the year 2010³⁴. A possible, partial, explanation for this is the impact of the economic crisis in the years 2008 and 2009. This is supported by the findings of Begel-Hayat³⁵ where a short-term effect negative relationship between fatality numbers and unemployment rate was described.

2.4.3 Involvement in accidents - Busses and coaches

Accident statistics show that in 2010 in the EU-25 822 fatalities³⁶ occurred in accidents where busses and coaches are involved. This represents almost 3% of the total number of fatalities³⁷. At the same time, we find in the CARE database that 0.4% of the total number of fatalities were in fact drivers or passengers of busses or coaches. This indicates that busses, similar to HGV, are relatively less safe towards their environment than other road modes when an accident occurs.

An analysis by ETSC shows that while buses and coaches remain the safest mode of road transport for their occupants, in the countries recording the distance travelled data, buses and coaches are less safe in terms of deaths per distance travelled than the average for the entire vehicle fleet.

³² ETSC: Road Safety Performance Index, Flash 24

³³ See Table 32

³⁴ See Table 33

³⁵ Bergel-Hayat (2013). The impact of the economic crisis on road mortality: an exploratory approach for some countries in Europe. Paper submitted to the European Transport Conference 2013.

³⁶ See Table 33

³⁷ See Table 34



On a European level, fatalities involving busses and coaches have been reduced by almost 46% over the period of 2001 to 2010³⁸. In particular from 2008 onwards, this reduction rate seems to increase (with a maximum yearly reduction rate of -14,01%). Again, this may be linked partially to the economic crisis in the years 2008 and 2009. In terms of relative risk (fatalities/billion vkm), we find that the relative risk varies between member states and lies between 15,99 and 54,30 fatalities per billion vkm ran by busses or coaches (consortium calculation based on CARE data for fatalities and Eurostat data for vehicle kilometres ran. This calculation was done for Belgium, Greece, France, Hungary, Austria, Poland, Slovenia, Finland, Sweden and the United Kingdom). For some countries, these values are different from the ones posted in the ETSC PIN Flash No24³⁹. Again, we find that this is probably due to the use of a different reported source for the number of vehicle kilometres ran. We find that the relative risk reduces over the years, with the exception of Austria (increase), Hungary (increase), Poland (status quo) and Sweden (increase).

2.4.4 Involvement in accidents - LGVs

Another vehicle category that is often linked to professional driving is Light Goods Vehicles (LGVs)⁴⁰. For this category typically a type B driving license is sufficient. Apart from pure professional transport purposes (delivery services), this vehicle category is also often used for other professional activities where the transport of goods is part of the activity, but not the main commercial activity (i.e. construction workers, maintenance work, repairs, etc.).

Accident data for is presented in a different way in the reports based on the CARE database. Fatality statistics are reported in terms of "fatalities in the vehicle category LGV<3.5tonnes", which is different from "fatalities from accidents where a vehicle category" was involved. As a result, it is not possible to make a similar comparison of the relative risk in terms of fatalities from accidents where a LGV is involved, offset of the vehicle kilometres ran by LGV. This makes a direct comparison with the data presented above for HGV less meaningful insofar as absolute or relative number of fatalities are concerned.

We can however look at specific data on the fatalities registered in the respective vehicle categories only. In 2010, 2,5% of registered fatalities were driver or passenger in LGV (<3,5 tonnes). In comparison with HGV, this is a similar number (2,4%). In absolute numbers, the number of fatalities in LGV vehicles was 786 (EU24, 2010 – HGV: 712). The evolution of the number of fatalities in LGV vehicles from accidents has shown a steady decline between 2000 and 2010⁴¹.

The relative risk, but this time as the number of fatalities from occupants (driver or passenger) from LGV divided by the number of vehicle kilometres ran by LGV, can only be calculated for France, Hungary, Romania, Finland and the United Kingdom. Table 25 presents an overview for the countries that have sufficient data available. These figures are lower than the figures presented in the ETSC PIN Flash No24 and is most likely caused by the inclusion of fatalities from other modes in the ETSC analysis. Overall though, we find on the basis of the consortium analysis that only Romania experiences a decrease in the relative risk for LGV fatalities. At the same time, it needs to be noted that Romania does score exceptionally poor compared to

³⁸ see Table 36

³⁹ ETSC PIN Flash No24. Towards safer transport of goods and passengers in Europe

⁴⁰ Vehicles with maximum permitted weight below 3.5 tonnes

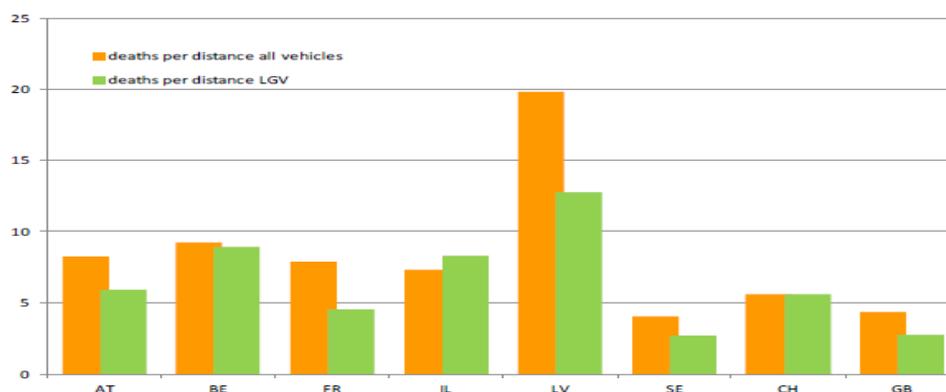
⁴¹ Care basic factsheet: annual statistical report 2012

http://ec.europa.eu/transport/road_safety/pdf/statistics/dacota/dacota-3.5-asr-2012.pdf

the other countries in the current analysis (Romania: 96 fatalities in LGV per billion vkm; other countries in analysis: 1 to 4 fatalities per billion vkm).

Given the data limitations, we cannot make a direct comparison between LGV and HGV relative risk based on our own data. The ETSC PIN flash 24 does make such a comparison. When comparing the numbers for LGV (figure 7) with the relative risk for HGV accident fatalities (figure 8), we find that the relative risk (fatalities/billion vkm) tends to be higher for HGV than LGV. This can be explained by the different nature of LGV and HGV: vehicle mass plays an important role in the energy carried into an accident and the accident outcome for persons involved.

Figure 4 Road deaths in collisions with LGV per billion vehicle kilometres travelled by these vehicles, and comparison with corresponding rate for all vehicles – time period last three available years



Source: ETSC: Road Safety Performance Index. Towards safer transport of goods and passengers in Europe.

ETSC concludes that the data from the countries that record the distance travelled by goods vehicles under 3.5 tonnes shows that, per kilometre travelled, the safety of LGVs is generally better than that of the entire vehicle fleet⁴².

2.4.5 Involvement in accidents - Taxis

Another vehicle category used in professional passenger transport is formed by the taxi vehicle category. For these, typically a type B driving license is sufficient. Specific information on the involvement of taxis in different types of accidents (overall or specific with fatalities or severe injuries) is not available in the CARE database, nor in other statistical sources. Some literature ⁴³ suggests that taxis are over-involved in accidents, but exact figures are not available and a comparative analysis of the number of accidents or fatalities per billion vkm is not possible. Other information sources, indicative of specific dangerous behaviour, are also not available: no specific enforcement reports on the existence of problematic behaviour with taxi drivers or other sectorial reports were found.

⁴² ETSC: Road Safety Performance Index, Flash 24

⁴³ David D. Clarke, Pat Ward, Craig Bartle and Wendy Truman, 'Road Safety Research Report No. 58' (ORSA 2005) http://www.orsa.org.uk/guidance/pdfs/indepth_study_work_related_road_accidents.pdf accessed 20th February 2014

Haworth, N., Tingvall, C., & Kowadlo, N, 'Review of best practice road safety initiatives in the corporate and/or business environment' (Monash University 2000), <http://www.monash.edu.au/miri/research/reports/muarc166.pdf> accessed 20th February 2014

Sarah Copsey, Terence N. Taylor, 'Taxi drivers' safety and health: A European review of good practice guidelines' (European Agency for Safety and Health at Work 2010) <https://osha.europa.eu/en/about/Road-transport/taxidrivers-safety-and-health.pdf> accessed 20th February 2014

Dalziel, J.R., & Job, R.F.S. Taxi drivers and road safety – A report to the federal office of road safety, 2011.

Elke Schneider, Xabier Irastorza, 'OSH in figures: Occupational safety and health in the transport sector – an overview' (European Agency for Safety and Health at Work (EU-OSHA) 2009) https://osha.europa.eu/en/publications/reports/ttransport-sector_TER010001ENC accessed 20th February 2014



2.4.6 Conclusions

The analysis in this paragraph leads to the following findings and conclusions:

- HGVs are involved in more than 15% of the total number of fatalities⁴⁴ in 2010. Compared to the number of fatalities in HGV vehicles (driver fatalities) from accidents, 2,4% of the total number of fatalities, this is indicative of the impact of HGV on other road users during accidents.
- HGVs are generally less safe than the country average for the entire vehicle fleet, with Latvia being the only exception. In Austria, France, Israel, Sweden, Switzerland and Great Britain HGVs are involved in more than twice as many fatal collisions per billion km travelled as the average vehicle.
- Busses and coaches are involved in almost 3% of the total number of fatalities in 2010⁴⁵. Compared to the number of fatalities in busses and coaches from accidents, 0.4% of the total number of fatalities, this indicates that busses, similar to HGV, are relatively less safe towards their environment than other road modes when accidents occur.
- Although buses and coaches remain the safest mode of road transport for their occupants, in the countries recording the distance travelled data, buses and coaches are less safe in terms of deaths per distance travelled than the average for the entire vehicle fleet.
- Comparable statistics regarding the involvement of LGVs in accidents are missing. Our analysis shows that the relative risk (fatalities/billion vkm) for this vehicle category is low. ETSC concludes that the safety of LGVs is generally better than that of the entire vehicle fleet.

The Consultant concludes that the relatively high involvement in accidents of the vehicle categories HGVs, and busses and coaches in terms of relative risk underlines the relevance of policy initiatives targeted at these categories to reduce the number of accidents. Given the comparison of LGV with other vehicle categories (and HGV) in the ETSC study, the Consultant concludes that the inclusion of LGVs in such initiatives is less relevant.

2.5 Social context - The labour market for drivers

2.5.1 Introduction

The objective of the Directive to enhance professional competence is related to the objective to make the profession more attractive in view of the shortage of drivers that is foreseen in the near future⁴⁶. Therefore, this paragraph analyses the number of drivers and the main factors influencing the supply side of the market: age distribution, professional competence and attractiveness of the profession. Furthermore, the free movement of drivers is analysed, because measures in this field could contribute to solving the problem of the shortage of drivers.

2.5.2 Number of drivers with a C and/or D license

The following table presents the number of drivers with a C and/or D driving license and a breakdown between national and non-nationals.

⁴⁴ See Table 31

⁴⁵ See Table 35

⁴⁶ European Parliament (2009), Shortage of Qualified Personnel in Road Freight Transport.

Table 2 Total number of truck and bus drivers, 2013⁴⁷

| | C-licensed drivers | D-licensed drivers | Total | Nationals % | Non-nationals % |
|-------|--------------------|--------------------|-----------|-------------|-----------------|
| AT | 53,167 | 14,822 | 67,989 | 84.4 | 15.6 |
| BE | 67,627 | 18,852 | 86,479 | 91.2 | 8.8 |
| BG** | 75,085 | 20,931 | 96,016 | 100.0 | 0.0 |
| CY* | 3,420 | 954 | 4,374 | 88.0 | 12.0 |
| CZ* | 120,867 | 33,694 | 154,561 | 98.9 | 1.1 |
| DE | 545,272 | 152,007 | 697,279 | 90.0 | 10.0 |
| DK* | 32,049 | 8,935 | 40,984 | 94.9 | 5.1 |
| EE*** | 16,891 | 4,709 | 21,600 | 78.7 | 21.3 |
| ES | 306,356 | 85,403 | 391,759 | 90.7 | 9.3 |
| FI** | 45,595 | 12,711 | 58,306 | 100.0 | 0.0 |
| FR | 337,814 | 94,173 | 431,987 | 94.3 | 5.7 |
| GR | 57,955 | 16,156 | 74,111 | 93.7 | 6.3 |
| HR** | 27,965 | 7,796 | 35,761 | 100.0 | 0.0 |
| HU** | 105,417 | 29,387 | 134,804 | 100.0 | 0.0 |
| IE | 22,076 | 6,154 | 28,230 | 88.2 | 11.8 |
| IT | 334,815 | 93,337 | 428,152 | 88.1 | 11.9 |
| LT** | 28,233 | 7,871 | 36,104 | 100.0 | 0.0 |
| LU | 3,085 | 860 | 3,945 | 49.1 | 50.9 |
| LV*** | 17,373 | 4,843 | 22,216 | 87.3 | 12.7 |
| MT** | 2,102 | 586 | 2,688 | 100.0 | 0.0 |
| NL | 88,194 | 24,586 | 112,780 | 97.7 | 2.3 |
| PL** | 328,792 | 91,658 | 420,450 | 100.0 | 0.0 |
| PT** | 69,783 | 19,453 | 89,236 | 100.0 | 0.0 |
| RO** | 137,708 | 38,389 | 176,097 | 100.0 | 0.0 |
| SE | 73,748 | 20,559 | 94,307 | 95.1 | 4.9 |
| SI* | 16,027 | 4,468 | 20,495 | 92.9 | 7.1 |
| SK** | 60,241 | 16,794 | 77,035 | 100.0 | 0.0 |
| UK | 296,457 | 82,644 | 379,101 | 92.6 | 7.4 |
| | 3,274,114 | 912,732 | 4,186,846 | | |

* The estimates are made based on very small data samples which implies a low reliability of data
** Estimated share of HGV and bus drivers based on the overwhelming majority of national drivers in these ten countries, as the share of non-nationals possesses low reliability to be published.
*** Non-nationals group in Latvia and Estonia also includes the so-called 'alien residents' (i.e., former citizens of the USSR, permanent resident of these countries, and non-citizens of any other country). Since they are non-citizens of any other country than these two, the problem of mutual recognition does not apply to them (since they do not have a driving licence from another Member State). To solve this uncertainty a data range 0 – value is used in the estimates.
Source: Labour Force Survey 2013. Breakdown between truck and bus drivers calculated using 78.2% respectively 21.8%.

2.5.3 Main factors influencing the supply of drivers

Age distribution

Figures on the age distribution of professional drivers show that the workforce is ageing, as the share of employees of 50 years or older increased from around 25% in 2002 to 32-33% in 2012⁴⁸. This observation holds both for the western part of the EU as well as the eastern part, but is somewhat more pronounced in Western Europe. In contrast, the share of young and of middle aged employees is declining. The share of young drivers (aged below 25 years) is slightly higher in Western Europe than in Eastern Europe.

⁴⁷ Information on the number and type of drivers comes from Labour Force Survey and is not always supported by information from the national registers on the number of trainings completed from three Member States (i.e. France, Spain and the Netherlands). However, as the Eurostat data is the best sound source available for all 28 Member States it was agreed with the Commission to use it as a main source of information, bearing in mind that in some Member States the exact number of drivers might be higher.

⁴⁸ See Table 37



Professional competence

Driving is today a highly demanding profession. Technological innovation, globalisation, increased complexity of regulations and additional tasks have implied a substantial transformation of jobs in the transport sector, entailing new and more complex skills and training needs⁴⁹. The mismatch between competences required by companies and those offered by the labour force contributes to the expected shortage of drivers.

Attractiveness of the profession

Working conditions and job attractiveness strongly influence the supply of labour for any occupation. As regards road freight transport, there are important factors that make the driver's occupation a relatively unattractive job.

Although in the past driving was seen as an attractive profession, allowing workers to organise their work independently and to travel internationally, both expectations and the reality of the sector have changed. Younger generations have different career requirements, including a lifestyle which will allow a better balance between private and professional life and the possibility to return home on a regular basis. With the availability of international travel, the profession has lost some of its appeal for younger generations⁵⁰.

The report of the high level group concluded that, in spite of the skills, responsibility and flexibility required in the profession, the hourly wage rate tends to be low and in some instances is set at the national guaranteed minimum wage. An adequate level of remuneration is frequently only achieved through overtime and non or little use of subsistence allowances. Career prospects are also limited with few drivers being promoted to office jobs within their organisations.

The European Agency for Safety and Health at Work⁵¹ concludes there is a range of reasons for the lack of attractiveness of jobs in road freight transport. Although their mobility can give rise to feelings of independence it can also create feelings of loneliness. In the case of long distance haulage this can mean spending nights away from home in less than comfortable circumstances. Such problems do not arise in urban and short distance operations but here the high incidence of collections and deliveries can be physically demanding. The Agency highlights a range of issues in the context of hazards and risks to road transport drivers. These include just-in-time management leading to high work pressures, client pressures, increasing use of remote monitoring and complex technology, work place design, accessibility of facilities and services (sanitary, sustenance and medical), infectious diseases, violence and assault.

Driver shortages

As explained, the image of the road transport sector has been declining over the last few years, which has led to a difficulty in recruiting drivers and particularly young drivers. Together with the figures on the age distribution of drivers, which indicates that large number of drivers will retire in the near future, and a mismatch between the competences required by companies and those offered by the labour force, this may lead to a shortage of drivers and might create a severe handicap to the sector and to the economy as a whole. Estimates of the expected shortage of drivers in 2018

⁴⁹ European Parliament (2009)

⁵⁰ Report of the High Level Group on the Development of the EU Road Haulage Market (2012).

⁵¹ OSH in figures: Occupational safety and health in the transport sector – An overview. European Agency for Safety and Health at Work, 2011

range from around 106,000 to 129,000, depending on the scenario for economic growth⁵².

However, as described in paragraph 2.2.2 on the impact of the economic crisis, currently the decline of transport activities is understandably downsizing the problem of driver shortages at least for the moment, first of all by reducing the labour demand because of the decline of transport activity, but also by increasing the supply of an available workforce due to the high unemployment rates.

The high level group⁵³ concludes that a change in image of the sector is indispensable if new recruits are to be attracted to the workforce:

- The image of the profession should be improved so as to make it more attractive to a broader pool of workers. Awareness of freight vehicle driving as a profession should be raised, particularly among potential women drivers who have recently successfully entered the urban passenger sector. The profile of the sector must be raised and the labour force enhanced through higher levels of training. A modular system of professional training could be established whereby transport workers have access to a range of qualifications in various aspects of the business. Such areas could include the transport of dangerous goods, safe and energy saving driving techniques and applications of new information technologies. Language training for drivers employed in international road haulage could also be an aspect of such a modular programme.
- Career progression should be encouraged through measures such as those facilitating access to vocational training and internal mobility towards office and management positions.
- Access to the profession of driver should be made easier. The current cost of qualifications is a substantial entry barrier and there must be adequate support, on the side of both industry and public bodies, in both financial terms and training opportunities for those intent on entering the profession. Access to the profession of driver must be made easier. The current costs of obtaining a heavy goods vehicle licence are about € 3,000⁵⁴ which as a rule have to be met by the 'would be' driver prior to obtaining employment in the sector. This is a considerable barrier to entry which is rarely if ever encountered in other manual professions.

The report on driver shortages⁵⁵ concludes that the Driver CPC is expected to bring benefits to the industry both in image and financially, since it provides an opportunity to introduce training that will improve company performance and profits. Nevertheless, some negative effects in terms of driver shortage are expected as well, especially because either the driver or the employer will have to bear the costs of this additional training. In this respect, training costs differ across the EU Member States, and may discourage potential new drivers if the burden is too high⁵⁶.

The report further concludes that if the Directive is not properly supported and facilitated, the requirement of a CPC may represent an entry barrier and restrict the potential supply of drivers.

The report states that one of the main issues that should be targeted to tackle the problem of shortage of qualified personnel in the road freight transport – specifically drivers – are skills and qualifications. Measures should facilitate attainment of professional and specific driving competences, strengthening the link between the educational system and the labour market, by:

⁵² European Parliament (2009)

⁵³ Report of the High Level Group on the Development of the EU Road Haulage Market (2012).

⁵⁴ This figure is from the High Level Group Report from 2012, so we assume this includes costs for obtaining a driver license and the CPC.

⁵⁵ European Parliament (2009)

⁵⁶ European Parliament (2009)



- creating ad hoc professional and lifelong training programmes;
- increasing awareness among young students of occupational and professional career prospects;
- improving job matching, exploiting the renewed role of public/private employment services;
- introducing and/or stimulating the use of apprenticeship contracts.

Conclusions

The Consultant concludes that a shortage of drivers is foreseen in the near future. Main causes of this shortage are the ageing of the population of drivers⁵⁷, the low image of the profession and consequently the low attractiveness of the profession, and the gap between required and offered skills and qualifications.

The Consultant furthermore concludes that vocational training might positively contribute to the sector, but main stakeholders also foresee that mandatory training could become a barrier for access to the profession. This issue will be further dealt with in the chapter on social impact.

2.5.4 Conclusions

The analysis in this paragraph leads to the following findings and conclusions:

- Although the economic crisis currently has led to a large loss of jobs in the sector (see 2.3.3), a shortage of drivers could become a problem in the near future. Main drivers for such a shortage are the age distribution of the driver population and the low image of the profession. An additional factor mentioned as a cause of driver shortage is the mismatch between competences offered and required⁵⁸.
- The Directive aims to contribute to the solution of the shortage problem by enhancement of the profession with the aim to make the profession more attractive. On the basis of stakeholder consultation and the exchange with the social partners, the Consultant concludes that mandatory CPC training could enhance the professional competence of drivers, but some stakeholders indicate also that it could also form a barrier for access to the profession, especially if the costs are borne by the drivers.

⁵⁷ This conclusion is also supported by the Dutch employers, who state that one third of the Dutch driver population is older than 55.

⁵⁸ European Parliament (2009)

Part 2 Methodology



3 Approach

3.1 Introduction and overall approach

The Consortium applied a range of methodological tools to gather the necessary quantitative and qualitative evidence for its analysis of the key evaluation issues. These are outlined below and the methodology followed is further described in the following sections. Furthermore, the data gathered through these tools were checked for consistency and relevance. The quantitative data were formed into tables and analysed. Since the relevant data was obtained through various methods, triangulation was used to verify the findings.

Desk research

A literature review and synthesis was carried out in the field of road safety in order to map the already existing studies, and assist in identifying key issues relevant for the evaluation of the Directive.

The approach and first findings of the desk research are presented in section 3.2.

Public Consultation

Between 17 July 2013 and 25 October 2013, the European Commission carried out a public consultation on Directive 2003/59/EC which yielded 395 responses. The results of the Public Consultation were analysed in order to acquire the opinions of stakeholders on the main problems related to the implementation of the Directive and in possible improvements.

The approach and first findings of the public consultation are presented in section 3.3.

Interviews

Targeted interviews were carried out in order to supplement the data obtained through the other methods, to investigate certain specific issues, strengthen findings, or seek clarifications on the answers given by stakeholders to questionnaires. Interviews were held with a number of stakeholders ranging from public entities to relevant transport associations.

The approach and first findings of the interviews are presented in section 3.4.

Questionnaire surveys

The Consortium developed a questionnaire survey to collect detailed information on the implementation of the Directive in the Member States. The questionnaires were distributed among the DG-MOVE CPC Committee Members. At the latter stage, a follow-up data request was sent to collect additional quantitative information on specific elements related to the Directive.

In addition, the Consortium together with ETF⁵⁹ developed a questionnaire survey about possible barriers for the free movement of drivers. This questionnaire was submitted to the EU-members of ETF.

The approach and first findings of the questionnaire surveys are presented in section 3.5. The questionnaires are presented in Annex 1 .

⁵⁹ European Transport Workers' Federation.



Stakeholder conference

In March 2014, a Stakeholder Conference was organized with the objectives to report on the findings of the public consultation and to validate its results, to present the results of the ex-post evaluation of the Directive and to discuss policy measures for the review of the Directive. 107 participants registered for the Conference, representing 104 organisations from 20 Member States or operating EU wide.

The approach and findings of the stakeholders' conference are presented in section 3.6.

3.2 Desk research

3.2.1 Approach

The objective of the desk research was to map the available data and identify previously completed studies relating to Directive 2003/59/EC in order to facilitate the process of evaluation.

Documentation obtained from the Commission and other publicly available sources were analysed in order to deepen the Consortium's understanding of the Directive and its context, and to assist in developing the most appropriate methods for investigation.

The literature review concentrated on the implementation of the Directive in the Member States, on training of drivers and its effects on road safety, fuel use and emissions, the developments in the road transport market, the developments in the labour market for drivers, and on stakeholder position papers.

Sources used include:

- CIECA Survey on the implementation of the Directive 2003/59/EC (2010)⁶⁰.
- ETF/IRU STARTS Survey on driver training issues (2012)⁶¹.
- Report from the Commission to the European Parliament, the Council, and the European economic and social committee and the committee of the regions on the implementation of Directive 2003/59/EC relating to the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers and country reports (2012)⁶².
- Minutes DG-MOVE CPC Committee meetings.
- Survey questionnaires setup by the Consortium (see Annex 1).
- EUR-Lex, electronic Official Journal of the EU.
- International Association of Public Transport (UITP) and European Transport Workers' Federation's (ETF) Joint Statement: 'The implication, application and further development of Directive 2003/59/EC of professional bus drivers in urban public transport' (08.04.2014).
- Report on the four thematic sessions of the stakeholder's conference. Review of the Directive 2003/59 EC. The International Road Safety Association, MOVING, May 2014.
- IRU Position on compulsory professional driver training, April 2014.
- Volvo Trucks position paper, 2014.

⁶⁰ CIECA (2010), The Survey on the implementation of the directive 2003/59/EC laying down the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods and passengers, The international commission for driver testing (CIECA) 2010.

⁶¹ ETF, IRU (2013), The Survey on driver training issues. Implementation of Directive 2003/59/EC.

⁶² European Commission (2012a), The Report of the Commission on the implementation of Directive 2003/59/EC (COM(2012) 385 final).

- DEKRA Akademie GmbH (2010), The series of papers published by DEKRA Akademie GmbH as part of the project Professional driving – more than just driving since 2010.

A complete list of literature is presented in annex.

3.2.2 Data limitations

No particular data limitation was encountered with respect to the collection of relevant studies. The most relevant prior studies were publicly available. Nonetheless, language limitations barred an extensive analysis of (some of) the Member States' domestic laws, policies, and implementation practices relevant for Directive 2003/59/EC. In such cases, information was obtained through other data sources (e.g., questionnaires and interviews).

As explained earlier, information on the number of drivers comes from the Labour Force Survey and is not always supported by information from the national registers on the number of trainings completed from three Member States (i.e. France, Spain and the Netherlands). However, as the Eurostat data is the best sound source available for all 28 Member States it was agreed with the Commission to use it as a main source of information, bearing in mind that in some Member States the exact number of drivers might be higher.

There are data limitations in terms of availability of up-to-date accident statistics and data on vehicle-kilometres which are only available in a limited number of countries. This hinders the analysis of the impact of the Directive, given also the fact that in most Member States the deadlines for periodic training has been postponed, in some cases up to 2016.

Other data limitations are the lack of quantitative data on the number of drivers who encounter problems with mutual recognition, on the number of drivers that relocated to another country, the lack of quantitative data on the implementation of the Directive in Member States in terms of number of CPCs issued, number of partial trainings, and quantitative data on control and enforcement.

3.2.3 First findings

The brief recollection of the first findings of the most relevant studies is provided under this subsection.

CIECA 2010⁶³

This report provided a comprehensive overview of the Member States' practices on the implementation of Directive 2003/59/EC. Its findings pointed out that there are significant difference across the Member States with respect to implementation of the Directive. In particular, widespread differences were identified with regard to the organisation of the initial qualification as well as the distribution, costs, and validation of periodic trainings.

ETF/IRU 2012⁶⁴

The scope of this report was to produce a detailed study on the implementation of Directive 2003/59/EC by providing a comparative study of the Member States' practices and also by addressing the implementation process and difficulties for each

⁶³ CIECA, 'Survey on the implementation of Directive 2003/59/EC', (January 2010).

⁶⁴ IRU, ETF, and AFT, 'Implementation of Directive 2003/59/EC' (June 2012).



Member States separately. The study confirmed the earlier findings of the CIECA report on the diverging implementation practices of the Member States, and highlighted the unequal intensity of Member States' efforts to meet the training needs stipulated in the Directive. The report also stressed the widely differing quality of training across the Member States, with emphasis on diverging practices on the Member States' control and monitoring of training centres. Furthermore, the report identified also differences in funding mechanisms and division of cost bearing across the EU.

Hence, the report made a number of recommendations on, *inter alia*, identifying an appropriate funding scheme, enhancing the quality of training through better State supervision and monitoring of the training, and creation of an information exchange mechanism.

Commission 2012 implementation report⁶⁵

In 2012, the Commission prepared a report on the implementation of Directive 2003/59/EC. The Commission concluded that while the Directive contributed to a common level of training for professional drivers, several differences existed among Member States in the application of the Directive. In particular, differences resulted from the possibility to choose the form of the initial qualification and the structure of the periodic training. The application of exemptions provided under Article 2 of the Directive was also found to be applied differently by Member States. The report also highlighted that training programmes and teaching methods were not standardized, and differences existed on the content of the training as well as the requirements for trainers and training centres.

The report identified a number of areas that can be improved. These included the potential necessity for the Commission to issue clarifying guidelines on the application of exemptions under Article 2. The report also recommended to maintain close cooperation within the Professional Drivers Training Committee

ProfDRV - project

DEKRA Akademie GmbH (2010) published a series of papers as part of the project Professional driving – more than just driving since 2010 (ProfDRV). Objective of the project was to explore the possibility to implement an EU-wide vocational training scheme from a VET perspective.

In summary, the project states that the implementation of Directive 2003/59/EC is challenged due to the very different implementation approaches all over Europe. Those vary not only from country to country but also between training providing institutions. The ProfDRV research showed that this leads to a very heterogeneous landscape of professional drivers qualification based on the directive that ranges between no increase in competence at all up to an entry level vocational education qualification. This entry level does, however, still not meet the requirements that have originally been stated within the Directive. Annex 1 of Directive 2003/59/EC requires a level of qualification that is somewhat comparable to EQF (European Qualifications Framework) level 3 or 4 qualification as initial qualification. This equals a German skilled worker certificate that includes a 3-year apprenticeship training. The ProfDRV research showed that the Directives implementation usually does not exceed a level 1 or 2 qualification of the EQF if it can be measured against the EQF at all. The proposed solution for this situation is the application of the EQFs learning outcomes approach in order to enable comparability of the different national application approaches. Learning outcomes are defines as what a learner knows, understands and is able to do

⁶⁵ COM(2012) 385 final.

after completion of a learning process. In this way the focus would be shifted away from learning input (such as length of study and learning methodology) which are not comparable as a basic rule but to the learning outcomes that allow for a comparison of qualifications. The ProfDRV project developed a learning outcomes based profile for the occupation "professional driver". The current shift towards learning outcomes within vocational education and training, however, shows that this approach requires a major change within thinking and practice among those involved into the realisation of training. Those changes have been partially described in this questionnaire and are also integral part of the ProfDRV quality standards for professional driver qualification. Those have been drafted in accordance with the learning outcomes approach and the related European vocational education and training tools.

Causes of accidents with heavy goods vehicles

The Consultant made an analysis based on literature review of the causes of accidents. To support the evaluation of this Directive on driver training, it is essential to assess to what extent the human factor is the cause of accidents.

A joint report by the WHO and the WB⁶⁶ indicates that human error is, in general, the main cause of traffic accidents worldwide (to be estimated at above 80%). Risk factors influencing crash involvement of passenger cars include high speed, use of alcohol, use of drugs and driver fatigue. These are also the factors which are mentioned in PRAISE report 3⁶⁷. In addition, use of hand-held mobile phones, inadequate visibility or simply inattentive road behaviour are other factors often causing road accidents. Non-personal factors contributing to crashes can be road-related or vehicle related.

When looking in more detail into accidents with HGV involved, we refer to the ETAC study⁶⁸ and LTCCS⁶⁹ which are comparable in their set-up. In the ETAC study, it was found that 85,2% of accidents were human factor related (an additional 5,3% had a technical cause while 5,1% had an infrastructural cause). In the LTCCS study this was 50%.

Furthermore, out of the accidents reported in the ETAC study linked to human error, only 25% are caused by the truck driver. For single-vehicle errors, this percentage is obviously higher. Estimation from the ETAC study indicate that at least 80% of these accidents are human error while the LTCCS study indicates a percentage of 82% of reported driver error.

A number of specific issues could be identified from in-depth accident investigation studies where HGVs were involved⁷⁰. In particular issues with speeding and inappropriate speed, tailgating, driver fatigue, driving time & mandatory rest periods, vehicle passing manoeuvres, blind spots and the use of appropriate safety technology, the approach of intersections, (low-speed) manoeuvring and driving in built-up areas,

⁶⁶ Margie Peden et al, 'World report on road traffic injury prevention' (World Health Organisation 2004) <http://www.who.int/violence_injury_prevention/publications/road_traffic/world_report/en/> accessed 20th February 2014.

⁶⁷ Ellen Townsend, Julie Galbraith, 'Preventing Road Accidents and Injuries for the Safety of Employees' (ETSC) <http://www.etsc.eu/documents/PRAISE_ROAD_SAFETY_MANAGEMENT.pdf> accessed 20th February 2014

⁶⁸ IRU, 2007, Scientific Study "ETAC" European Truck Accident Causation.

⁶⁹ NHTSA 2006, Large-truck crash causation study: an initial overview

⁷⁰ US Department of Transportation, 'Report to Congress on the Large Truck Crash Causation Study' (US DOT) <<http://www.fmcsa.dot.gov/facts-research/research-technology/report/lccs-2006.htm>> accessed 20th February 2014

International Road Transport Union, 'A Scientific Study "ETAC" European Truck Accident Causation' (Europa 2007) <http://ec.europa.eu/transport/roadsafety_library/publications/etac_exec_summary.pdf> accessed 20th February 2014



weight and balance and the fixation of goods and passengers are main causes of accidents.

In addition, a recent study by Volvo Trucks⁷¹ reveals that in 90% of collisions involving an HGV one of the contributing factors was related to the driver, 30% was related to the road/traffic environment and 10% was related to the vehicle. In many cases, a combination of factors contributed to the collisions analysed. A report by the Dutch Safety Board⁷² pointed at alertness and surplus speed in general and the specific areas of tyre blowouts and collisions at the end of traffic jams as focus areas that need to be looked at more closely. Another Norwegian study⁷³ concluded that while vehicle conditions (such as brakes or tyres) may contribute to road collisions, they are rarely its main cause.

As a result of these findings, studies have presented a number of relevant recommendations (a selection of recommendations that are directly relevant to the current study is made):

- Revising driving schools regulations to help understand truck manoeuvres
- Awareness campaign regarding speeding, safety distance and driving manoeuvres of truck
- A better training of the truck driver could prevent accidents in different configurations such as accidents during a passing manoeuvre or single truck accidents where drivers often make improper manoeuvres.
- Fatigue is often a main cause of the accident. Truck drivers should be able to take a rest when necessary by respecting driving and resting times.
- Providing life style information for drivers (e.g. influence of eating habits on driving ability).

It should be noted that, given the impact non-truck driver related factors have, that recommendations in relation to the following factors should also be considered:

- Vehicles manufactures: active and passive safety technology
 - It should in particular be noted that active and passive safety devices could assist in reducing the likelihood of having accidents of particular types:
 - Intersection accidents (ETAC: 27% of multiple vehicle accidents)
 - Accident in queue (ETAC: 20,6% of multiple vehicle accidents)
 - Accident due to lane departure (ETAC: 19,5% of multiple vehicle accidents)
 - Accident after an overtaking manoeuvre (ETAC: 11,3% of multiple vehicle accidents)
 - Single truck accidents (ETAC: 7,4% of total accidents)
 - Technologies that could support the driver are for example: ISA (speeding), Advanced Cruise Control (accidents in queue) and lane-keeping technology.
- Other road users: better knowledge of the behaviour of trucks in order to help anticipate conflicts
- Infrastructure: enhance (intersection) visibility and maintenance on the state of the road.

Effects of training of drivers on road safety

In addition to the literature review on the causes of accidents, the Consultant made an analysis based on literature review of the effects of training on road safety. In order

⁷¹ Volvo Trucks, 'European Accident Research and Safety Report 2013' (2013)

<<http://pnt.volvocars.com/e/GetAttachment.ashx?id=26704>> accessed 20th February 2014

⁷² Dutch safety Board, 'Truck accidents on motorways' (2012)

⁷³ TOI, 'In-depth study of 130 fatal accidents involving heavy goods vehicles in Norway 2005-2008' (2010)

to be able to evaluate the Directive it is essential to get an insight in the possible effects of training of drivers.

For a better understanding of the effects of training of drivers on road safety it is essential to distinguish between:

- On one hand (novice) apprentice driver training and driver re-training (for experienced drivers).
- On the other hand, "danger recognition training" and "motoric training"

Overall, young drivers receive a driving course over a given period, containing both theoretical and practical sessions. From literature we know that in particular young or inexperienced drivers have a higher accident risk. The question is whether training would help younger drivers. Such training was the subject of an elaborate review by Mayhew & Simpson (2002)⁷⁴. The authors of this study present the view that relatively little support can be found for the hypothesis that formal driver instruction is an effective safety measure. One of the underlying causes for this observation is the fact that traditional programs fail to address adequately the age and experience related factors that render a driver at increased risk of collision. In addition, driver education also often fails to tailor content to student needs. This is in line with some of the comments voiced by stakeholders in the public consultation. Other reasons brought forward by academic research that shows that formal safety training is often ineffective, are the fact that students are often not motivated to use the techniques which they are being taught, the fostering of overconfidence and the failure to properly address lifestyle issues. The authors propose linking driver education to a graduated licensing system in order to improve the safety value of formal training. Other authors (Stanton et al., 2007⁷⁵) propose a different training model focusing on 'Information, position, speed, gear and acceleration', focusing on situation awareness and hazard recognition as a more effective safety tool.

As an alternative, Mayhew & Simpson suggest possible improvements by distinguishing between simple "motoric training" and "danger recognition training", which is also of importance for more experienced drivers. Mayhew & Simpson suggest that the impact of driver training could be improved if it emphasized not only learning of key skills and capabilities, but also their acquisition in situations that are most relevant, such as in situations where young drivers are at high risk. This is in line with the findings from a SWOV study⁷⁶ where a specific distinction was made between driver training that is aimed at allowing drivers to more easily recognise dangerous situations ("danger recognition training"), which has a potential positive effect on safety, and driver training that was aimed solely at learning drivers to pose the proper evasive or responsive action during short training sessions ("response training"), which seemed to have no effect on safety, or possibly even an adverse effect (Katila, 1996⁷⁷). This is also in line with the crash causation information presented in the section above: professional drivers are more often the victim in a road crash than the cause. This implies that improving the anticipatory skills of professional drivers (through risk recognition, etc.) should have a positive impact on road safety.

⁷⁴ Mayhew & Simpson, 'The safety value of driver education and training Injury Prevention, 8, ii3-ii8' (2002)

⁷⁵ Stanton, Walker, Young, Kazi & Salmon, 'Changing drivers' minds: the evaluation of an advanced driver coaching system, Ergonomics, 50, 1209-1234' (2007).

⁷⁶ SWOV (2012) De rijvaardigheidseisen in Midden- en Oost-Europese lidstaten en ongevallen en overtredingen van buitenlandse bestuurders in Nederland

⁷⁷ Katila, A., Keskinen, E., & Hatakka, M. (1996). Conflicting goals of skid training. Accident Analysis and Prevention, 28(6), pg. 785-789.



This finding is in line with findings from the ADVANCED⁷⁸ European project and the literature study included therein: effects in the range of 20% could be found. In such a training, the driver has the opportunity to recognise situations and analyse the situation for potential (imminent) dangers. The main benefits for such a training system lie in the possibility for the trainee to actively be guided by a qualified instructor to learn (visual) scanning behaviour, to learn to recognize set-schemes (situation recognition) and, perhaps most importantly, to be able to constantly make use of the experiences gathered during the training session. In particular when addressing age and experience-related problems (higher crash- and injury rates for younger or inexperienced drivers), this may be of importance.

Christie explains that research results point out that driver training that goes beyond teaching vehicle control and road law knowledge skills have little effect on reduction of road fatalities after the driver obtains the qualification.⁷⁹ A possible reason for this is brought by Murphy and Leach, who argue that "once the training is complete, the company has little control over the post-course behaviour of drivers where their motivation to apply what has been taught may not be high... [the reason for this being] simply that they [i.e., the drivers] are not motivated to change their behaviour".⁸⁰

The conclusions that we draw from the literature review is that driver training that goes beyond the ordinary training on vehicle control has potential positive effects on road safety only when the training allows drivers to more easily recognize dangerous situations and analyze the situation for potential (imminent) dangers.

Effects of e-learning

In recent years the possibility to include e-learning as a tool in driver training has been discussed by stakeholders. In some countries e-learning is permitted in CPC training, in other countries it is not⁸¹. The current Directive does not address e-learning. To support the evaluation of the Directive the Consultant carried out literature review on the benefits of e-learning.

Welsh et al. (2003) conducted a systematic overview of e-learning experiences based on empirical research and a questionnaire. Some of the benefits of e-learning for organisations are the fact that it can deliver consistent training across multiple locations and the fact that it can reduce costs, in particular travel costs, classroom costs and time off-the-job costs. These advantages could also apply to CPC training as lowering costs and increasing the harmonization of training material are two concerns which often come back in the documents we analysed (public consultation, consortium questionnaire, others).

However, some of the drawbacks may also apply. One drawback is the fact that e-learning is found to be not equally effective for everyone. Learners with low levels of computer self-efficacy are related to lower learning outcomes. Since professional drivers are often not very much acquainted with computer-use, this could be a concern for CPC training. Age is another significant factor. E-learning seems currently more suitable for initial trainings with a higher intake of young drivers and maybe less for periodic trainings that many experienced, older drivers attend. E-learning is also

⁷⁸ CIECA, 'Available Documentation' (2010-2014)

⁷⁹ Christie, R., 'The effectiveness of driver training as a road safety measure: an international review of the literature', (2001), available at: <http://acrs.org.au/files/arsrpe/RS010018.pdf> (last accessed 01 July 2014), pp. 1-2.

⁸⁰ Murphy, S. and Leach, D.Z., 'The extent to which heavy goods vehicle driver training is focused on reducing the causal factors of driver stress and fatigue', University of Huddersfield (2013), pp. 5-6.

⁸¹ See chapter 4.

more useful in case of training targeting cognitive learning outcomes, particularly less complex knowledge and intellectual skill. It is therefore clear that e-learning will probably not be very effective for practical training sessions or simulations.

We conclude that, based on theoretical research, it seems that e-learning can have a role in CPC training. However, it is more suitable for use in specific circumstances and less in others. It's effective use should therefore be thoroughly considered before implementation.

Effects of the use of driving simulators

In recent years the possibility to include driving simulators as a tool in driver training has been discussed by stakeholders. The current Directive allows to a certain extent the use of driving simulators. To support the evaluation of the Directive the Consultant carried out literature review on the benefits of using driving simulators.

The potential positive contribution of using simulators for driver training is also asserted in a number of academic articles such as Ivancic & Hesketh (2000)⁸² or Roenker et al. (2003)⁸³. Driving simulators, used for training and education of professional drivers, may be in particular of interest towards the training of higher-order tasks (situational awareness, risk perception) and procedural tasks (what order of actions to I need to take in situation x, y, z?). Insofar as tracking tasks (speed and course maintenance) and emergency situation training they do not pose particular advantages. As such, driver training simulators for the use of professional driver training may be considered to enhance situational awareness and risk perception without causing a real-life hazardous situation.

3.3 Public consultation

3.3.1 Approach

A public consultation was launched by DG-MOVE in July 2013 to collect stakeholders' views on the various aspects of the Directive and their impact. The consultation process was carried out through an online questionnaire comprising of 28 questions that addressed various issues related to the implementation and current operation of the Directive's mechanisms. The public consultation has concluded in October 2013.

The public consultation yielded 395 responses from stakeholders operating in various domains of the road transportation and public policy sector:

- Road transport service sector – organisations, 22 responses (6%)
- Road transport service sector – individuals, 136 responses (34%)
- Other interest representation, 45 responses (11%)
- Training organisation, 95 responses (24%)
- Competent authorities and other enforcement bodies in relation to the application of the Directive, 12 responses (3%)
- Road safety expert, research and university, 13 responses (3%)
- Public authority, 19 responses (5%)
- Other, 53 responses (14%)

The thematic categorization of the questions presented in the public consultation was the following:

- the importance of education and training of drivers;
- the impact of the Directive;
- scope of the Directive and exemptions;

⁸² Ivancic & Hesketh (2000). Learning from errors in a driving simulation: effects on driving skill and self-confidence. *Ergonomics* 43:12, 1966-1984.

⁸³ Roenker, Cissell, Ball, Wadley & Edwards (2003). Speed-of-processing and driving simulator training result in improved training performance, *Human Factors*, 45:2, 218-233..



- access to professional driving;
- mutual recognition and certification of training;
- specificity of the Certificate of Professional Competence (CPC);
- initial qualification and training;
- compulsory periodic training;
- approval of training centres and instructors;
- other comments.

Detailed results of the Public Consultation are presented in the Report on the Public Consultation on Directive 2003/59/EC on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers⁸⁴. In the following section a summary of the main findings are presented.

3.3.2 *Data limitations*

Data limitations included the representativeness of stakeholders in terms of EU countries. By far the most respondents were from the UK (51%), of which most were individuals. Representation of respondents from the countries that joined the EU since 2004 was low with around 2%. Training organisations represented 24% of the respondents.

3.3.3 *First findings*

The analysis of the public consultation resulted in the following general findings.

Qualification and education of drivers are considered by stakeholders as having an important contributory role to improve road safety. Although to a more limited extent stakeholders also support a move towards a higher level of mutual recognition. Two-thirds of the stakeholders also agree that setting up of an increased harmonisation of requirements would result in higher consideration of the profession of driver. Furthermore, establishing a common framework for training and testing, further harmonisation of the training, and common requirements for training centres and instructors are seen by two-thirds of the stakeholders as further contributing to the objectives of the Directive.

In considering the impact of the Directive, the perception of the stakeholders is that it contributed only insufficiently to achieving its objectives, namely increased road safety, development of the level of professional competence of drivers, free mobility of drivers and the creation of a level playing field for drivers and undertakings.

With respect to the scope and exemptions of the Directive, stakeholders were divided on the best way forward. An alignment with Regulation 561/2006 is supported by half of those having answered the question while the other half supports the development of a separate system of exemptions. Stakeholders are equally divided on the opportunity of extending the scope of the Directive to other categories of drivers.

On the access to professional driving, stakeholders' views are divided as well. While the restructuring of the training in the form of gradual access at an early age and direct access at higher age is seen by close to half of the stakeholders as a viable option, an equal number of respondents disagrees. The introduction of a module and credits based structure also received mixed reactions from stakeholders.

⁸⁴ Panteia (2014)

While stakeholders' view is again divided over the ways to certify trainings carried out in another Member State, there is a strong support for the harmonisation of the format of the CPC.

Concerning the specificity of the CPC, keeping the CPC training and testing separate from other forms of trainings and testing is an approach supported by the stakeholders.

The requirement for all drivers to undergo a minimum training before obtaining the CPC was also supported by almost two-third of the stakeholders. The subjects listed in Annex I to the Directive are believed by most stakeholders to be relevant for the objectives of the Directive, but the degree of relevance may be limited. Nevertheless, the coverage of subjects in Annex I seems to be adequate, The use of top-of-the-range simulators should not be made mandatory in the view of the stakeholders while e-learning is considered to be able to make a useful contribution to parts of the training.

The introduction of a uniform European syllabus for periodic training is generally supported by stakeholders, but the introduction of a test after the training attracted more mixed reactions. Furthermore, there seems to be a need for establishing a mechanism for the mutual recognition of partial periodic trainings carried out in another Member State. Similarly, stakeholders call for a detailed regulation of the requirements for the approval of training centres and instructors.

3.4 Interviews

3.4.1 Approach

Interviews were carried out in order to fill the data gaps left by the questionnaires, as well as to seek clarification and elaboration on unclear issues submitted by respondents of the public consultation. Furthermore, interviews were used to strengthen the findings and obtain a better understanding of certain specific matters, such as the relation between training and professional competence, training and road safety, effects of using e-learning and driving simulators, costs of training, quantitative data on the impact of the Directive.

The topics covered by the interviews related to:

- The issue of mapping the extent of certain problem (most relevantly, the problem related to mutual recognition);
- Gain understanding of the practical operation of certain aspects of the Directive (e.g., how authorities address the validation of partial trainings, etc.);
- Inquiry into available quantitative data and/or practical experiences relating to problems with the Directive.

In the period between October 2013 and July 2014 face-to-face interviews were held with the following organisations:

- Ministerie van Infrastructuur en Milieu (IenM), The Hague, the Netherlands
- Central Bureau Rijvaardigheidsbewijzen (CBR), Rijswijk, the Netherlands
- International Road Transport Union (IRU), EU Delegation, Brussels, Belgium
- International Road Transport Union Academy (IRU Academy), Geneva, Switzerland
- Promotrans, Paris, France
- UITP (International Association of Public Transport), Brussels, Belgium
- Transport en Logistiek Nederland (TLN), Brussels office, Belgium
- Deutsche Post DHL, Brussels, Belgium



- International Transport Workers' Federation (ETF), Brussels, Belgium
- International road safety association MOVING, Berlin, Germany.
- Transport en Logistiek Nederland (TLN), Zoetermeer, the Netherlands
- EVO, Eigen vervoerders en verladere organisatie, the Netherlands
- CCV, part of CBR involved in professional driver examination
- UEAPME, European Association of Craft, Small and Medium-Sized Enterprises
- Springer Fachmedien München GmbH

In addition information was collected via phone calls and/or email exchange with the following organisations:

- Transport Verzekeringsmaatschappij (TVM), the Netherlands
- DSLV Deutscher Speditions- und Logistikverband e.V., Germany
- Landesverband Verkehrsgewerbe Saarland e.V., Germany
- Austrian Economic Chamber, Department for Education and Training
- Irish Road Haulage Association
- British Agriculture Bureau (BAB), United Kingdom
- Wiener Linien GmbH & Co KG, Austria

The interview questions were prepared for each stakeholder individually in order to obtain the most relevant information from each interview. For some stakeholders, *ad hoc* interviews were carried out (for instance, in the case of the Austrian Economic Chamber or the Irish Road Haulage Association), which meant to seek follow-up clarifications or provide additional data in support of comments made by these entities in previous consultation procedures (e.g., the stakeholder conference).

3.4.2 Data limitations

In general, stakeholders reacted positively to the interviews, and showed willingness to cooperate and assist in the evaluation by providing information to the best of their availabilities. The interviewed stakeholders were often unable to provide (relevant) quantitative data. Although they were aware about the existence of certain problems (through complaints of association members, discussions, or hearsay), there were no clear records kept that would help determine the magnitude of the problems. Despite these limitations, the inputs received from the interviews were of great added value since they shed light on the stakeholders' perception of the problems identified through other methods.

Also, through the information obtained through these interviews, we were able to integrate real cases in our report to corroborate the findings (for instance, in the context of the problem with mutual recognition of the training, stakeholders told us about the situation of French drivers in Saarland, Germany, or the situation of Hungarian drivers in Austria).

3.4.3 First findings

Main highlights were:

- In general stakeholders support mandatory initial and periodic training as introduced by the Directive.
- The views of the different stakeholder categories can be summarized as follows: employers want maximum flexibility, training institutes want more training, examination institutes want more examination, employees want the job of a driver to become a real profession, which in turn could make the profession more attractive.

- Problems relating to the mutual recognition of full trainings may only have a regional dimension since only in certain areas were these problems pointing out by the stakeholders.
- Stakeholders were unable to present quantitative data on the impact of training on road safety and reduction of fuel use.
- Not one stakeholder questioned the length of the periodic training (35 hours), except for one stakeholder who is in favour of slowly reducing the number of periodic training hours for experienced drivers.

3.5 Consortium questionnaire surveys

3.5.1 Approach

In December 2013 the Consortium set up a questionnaire survey to collect additional information on the implementation of the Directive in the Member States. The questionnaire was distributed among the members of the DG-MOVE CPC Committee. In January 2014 a short additional questionnaire was distributed to collect quantitative information on the recognition of CPC training in foreign countries. In April 2014 a questionnaire was distributed via ETF in order to get additional quantitative information on problems with the recognition of driver training undergone in another Member State. The questionnaires are presented in Annex 1 .

The main topics covered by the questionnaire were:

- Scope of exemptions;
- Aspects relating to initial qualification (*inter alia*, minimum age requirements, option choice of the respondent Member State, elements of training, approach towards reliance on simulators and e-learning, success rate on completing initial qualification);
- Aspects relating to periodic training (*inter alia*, deadline for the completion of the first periodic training, distribution of the mandatory hours, content and certification of the training);
- Mutual recognition of the training (*inter alia*, means of validation, acceptance of partial training, problems incurred with mutual recognition);
- Previous training schemes (existence of training schemes prior to the Directive);
- Operation of the Directive's system (*inter alia*, number of drivers who acquired initial qualification, number of drivers obtained a CPC through a periodic training);
- Approved training courses and centres (*inter alia*, number of training centres, the applied quality system for the approval of training centres);
- Estimated prices of training and testing (*inter alia*, average selling prices of training courses and tests, average costs of administrative services).

The questionnaires were sent out to 27 Member States (except Croatia). Responses were received from 22 Member States. Reminders were sent out to the remaining Member States, and phone calls were made to inquire about the responses but no further inputs were received.

In April 2014, A follow-up questionnaire was sent out with targeted questions aimed at discovering the existence and magnitude of problems relating to the mutual recognition of completed and partial periodic trainings. This questionnaire was circulated among the members of the ETF (European Transport Workers' Federation).

3.5.2 Data limitations

Most of the Member States gave complete answers to the questions addressed. However, some did not possess all the necessary data to provide all the information.



The most frequently incurred missing information was on the operation of the system (number of drivers who acquired initial qualification and number of drivers obtained a CPC through a periodic training). This represented a limitation since it was more difficult to measure the true magnitude of the problem on the EU level.

3.5.3 *First findings*

The questionnaire surveys gave valuable information for the completion of the overview of how the Directive was implemented in the Member States. In addition, the questionnaire surveys gave quantitative information on some elements of the Directive, such as the number of exempted drivers, the mandatory topics for obtaining a driving license and a CPC per Member State, Member State's policies on recognition of training in other countries, the number of drivers trained till 2013 and the number of approved training courses and training centres.

The results of the Consortium Surveys are included in the background analysis in Chapter 4 on the transposition and the implementation of the Directive in the Member States.

3.6 Stakeholder conference

3.6.1 *Approach*

On 6 March 2014, the European Commission, supported by the Consortium, organized a Stakeholder Conference as part of the review of Directive 2003/59/EC.

The main objectives of the conference, which was open to all interested stakeholders, were to report on the findings of the public consultation and to validate its results, to present the first results of the ex-post evaluation of the Directive and to discuss policy measures for the review of the Directive. 107 participants registered for the Conference, representing 104 organisations from 20 Member States or operating EU wide.

The Conference had four thematic sessions and an introductory session. In the introductory session, the findings of the public consultation and the preliminary results of the ex-post evaluation of the current Directive were presented. The four thematic sessions addressed the following aspects:

- 1) Relevance and scope of the Directive.
- 2) Minimum age.
- 3) Structure of the training.
- 4) Quality assurance and mutual recognition of the training.

In each of these sessions a speaker introduced the session's topic, the problems identified and the possible policy measures. Subsequently, the stakeholders participating in the Conference expressed their views and comments.

The discussion paper was disseminated among the stakeholders prior to the meeting (presented in Annex). The discussion paper was meant to give a necessary context and background to the conference participants, and present issues and questions to give directions to the discussions.

3.6.2 *Data limitations*

The categories of participants of the stakeholder conference reflected the categories of respondents of the public consultation, with the exception of individual participants.

Most of the speakers represented training institutes or road transport associations, of which many also have training business units.

3.6.3 First findings

For each of the four thematic sessions, the Commission draw up the relevant conclusions, which are presented below for each session. These conclusions were based on general consensus among the stakeholders present at the conference. The first findings for each session are presented below.

Session 1.) Relevance and scope of the Directive.

- No stakeholder contested the relevance of the Directive but there was a clear signal that before expanding the scope, the Commission has to ensure that the Directive is operating properly in the Member States, which also gives added value to the industry and the drivers themselves. The Commission took notice of the concerns expressed regarding the growing cross-border traffic of vans and the possibility to extend the scope of the Directive to apply also to this category of vehicles.
- The stakeholders' discussion showed that the scope of exemptions should not be increased from what is currently foreseen in the Directive. Alignment with Regulation 561/2006 is not seen as important but coherence between the two regimes is welcome.
- The Commission took notice of the concerns expressed regarding the negative impact of the application of certain exemptions on the level playing field on a national level.

Session 2.) Minimum age.

- There is a difference between the opinion of the academia and that of the industry on the right level of minimum ages to enter the profession. The former considers that lowering minimum ages would lead to increased risks of road accidents. The industry representatives, on the other hand, believe that young drivers (aged 18) do not represent a higher risk than older drivers, provided the selection criteria and the quality of training are right. Also, the industry representatives pointed out that there is a growing shortage of drivers, which could be compensated through maintaining the low minimum ages to enter the profession.
- Nonetheless, both the academia and the industry believe that there are ways to mitigate the increased risk of causing road accidents posed by youngsters through mechanisms such as having the right training or other measures such as mentorship.
- There is a broad consensus among the stakeholders that the minimum ages as laid down currently in the Directive (18 years for truck drivers and 21 for bus/coach drivers) are adequate.

Session 3.) Structure of the training.

- Stakeholders generally agree that there is a need to improve the current training system.
- There is also agreement that the training system has to be made more adaptable to the actual needs of the drivers and companies. There is also a need to make it more flexible over time and to introduce more direct involvement of the stakeholders and the industry.
- Stakeholders pointed out that the training should be meaningful for the drivers. This means that the periodic trainings should not comprise of merely repetitive



courses, or include topics that are irrelevant for the driver. Rather, the training should take into account the individual needs of the driver.

- There might be a need to replace a rigid periodic training system with a life-long learning approach.

Session 4.) Quality assurance and mutual recognition of the training.

- As regards the mutual recognition, it is not clear whether there is a problem, and if so, how big it is.
- There is support for a system that improves mutual recognition but there are concerns among the industry representatives about the possible costs that this may entail to the driver and his/her operator.
- There is a consensus that quality assurance is important and we should find ways to increase the reliability and trustworthiness of the training centres.

Concluding remarks made by the Commission:

- There is broad agreement among the stakeholders that the Directive is relevant and necessary, but it has to be improved especially as regards implementation. That should be given priority over extending its scope to other vehicles.
- There are reservations regarding the extension of the scope to drivers currently not covered, although a couple of stakeholders called for an extension to vans and small trucks.
- There was little, if any, support for the alignment of the scope of the Directive with other related legislation, especially Regulation 561/2006 on the harmonisation of certain social legislation relating to road transport.
- Stakeholders support leaving minimum age requirements as they currently are in the Directive. However, the current ambiguity with the Driving Licence Directive needs to be corrected.
- Almost all stakeholders agree that introducing a modular training structure would be a good way to go forward.
- There is a need to improve the adaptability and flexibility of the training system. The training should be meaningful and useful for the drivers.
- It remains uncertain whether mutual recognition of training and certification represents a problem, and if so, to what extent. Cost-effective measures that would improve the mutual recognition would be most welcome.
- Similarly, cost-effective measures to provide better quality assurance would be received favourably.
- The stakeholders expressed an interest to be involved and consulted in the subsequent steps of the review process, to the extent allowed by procedural rules.

Part 3 Findings and analysis



4 Transposition and implementation of the Directive

4.1 Background

This first chapter in the section on analysis and findings presents the transposition and implementation of the Directive. This is done in four sections, i.e. timing of transposition and implementation of the Directive (Section 4.2); Implementation of the Directive (Section 4.3); Format and content (Section 4.4); and Output of the Directive (Section 4.5). The section on timing addresses the question “when the Directive was implemented”. The next two sections focus on “how the Directive was implemented”, with the section on format and contents mainly focusing on how training is implemented in the Member States. The final section describes “what the Directive has delivered”, i.e. the output.

All sections have a similar structure, i.e. key aspects are described in sub-sections, followed by specific conclusions, and general conclusions in the form of main findings at the end of each section.

4.2 Timing of transposition and implementation of the Directive

4.2.1 Introduction

This Section establishes insight in when the Directive was transposed and implemented. Information on timing of transposition and implementation is important as this provides the basis for the time period in which the Directive can have its impact. This also in the light of most recent reliable data availability. For example, on road safety the most recent reliable data is available for 2012.

4.2.2 Transposition and implementation of the Directive

Under Article 14, the deadline for transposition of the Directive expired on 10 September 2006. The deadline for implementation of the initial qualification, as set in the Directive, expired on 10 September 2008 for drivers holding a category D1, D1+E, D or D+E (buses) driving licence and on 10 September 2009 for drivers holding a category C1, C1+E, C or C+E (truck) driving licence. The following table provides an overview of the effective starting date of applying the Directive, i.e. on the initial qualification training or testing in each Member State.

Table 3 Starting date of application of initial qualification

| Member State | Date of application for drivers with cat. D licences | Date of application for drivers with cat. C licences | Member State | Date of application for drivers with cat. D licences | Date of application for drivers with cat. C licences |
|--------------|--|--|------------------|--|--|
| AT | September 2008 | September 2009 | IT | September 2008 | September 2009 |
| BE | September 2008 | September 2009 | LT | September 2008 | September 2009 |
| BG | September 2008 | September 2009 | LU ⁸⁵ | August 2009 | August 2009 |
| CY | September 2008 | September 2009 | LV | September 2008 | September 2009 |

⁸⁵ Additionally, AFT-IFTIM, ‘Implementation of Directive 2003/59/EC, Survey on driver training issues’ (June 2012) p. 85.



| | | | | | |
|------------------|----------------|----------------|------------------|----------------|----------------|
| CZ | September 2008 | September 2009 | MT | September 2008 | September 2009 |
| DE | September 2008 | September 2009 | NL | September 2008 | September 2009 |
| DK | September 2008 | September 2009 | PL | September 2008 | September 2009 |
| EE ⁸⁶ | January 2006 | January 2007 | PT ⁸⁷ | September 2009 | September 2009 |
| ES | September 2008 | September 2009 | RO | September 2008 | September 2009 |
| FI | September 2008 | September 2009 | SE | September 2008 | September 2009 |
| FR | September 2008 | September 2009 | SI | September 2008 | September 2009 |
| GR | June 2008 | June 2008 | SK | September 2008 | September 2009 |
| HU | September 2008 | September 2009 | UK | September 2008 | September 2009 |
| IE | September 2008 | September 2009 | | | |

Source: Consortium questionnaire (2014)⁸⁸ and EURLEX

Based on

Table 3 the following can be concluded:

- All Member States have transposed and implemented the Directive.
- The application of the initial training started for drivers with cat. D licences in September 2008 in 23 Member States, as required by Article 14(2) of the Directive. In Estonia and Greece, the application started earlier than this date, in January 2006 and June 2008 respectively. However, this does not seem to pose a problem for the operation of the Directive. In two other countries, the application started later than the date mentioned in the Directive. In Portugal, the law implementing the Directive came into force only in May 2009, and its application to initial trainings started only in September 2009.⁸⁹ This entails that new bus drivers (car. D licence) started to do initial trainings only in September 2009, despite the fact that the Directive required a one year earlier start. Luxembourg was the last Member State to implement the Directive. It enacted its transposing law in June 2009, and it started applying the training requirements as of August 2009.⁹⁰ This entailed a similar situation to that of Portugal, that is, bus drivers entering the profession faced an initial training one year later than envisaged by the Directive.
- In the case of application of the initial training for drivers possessing cat. C licences, all Member States implemented a training requirement by September 2009 the latest (in compliance with Article 14(2) of the Directive). It can be observed that in some Member States, the training was applied already earlier: in Estonia since January 2007 and in Greece since 2008. Nonetheless, this is not considered to be a problem for the effectiveness of the Directive's training.

4.2.3 Extended deadlines for periodic training

Article 8 of the Directive defines that Member States are allowed to extend the deadline for periodic training for drivers with acquired rights with a maximum of seven years⁹¹. The next table presents the actual deadlines for periodic training per Member State and per type of license.

⁸⁶ See additionally, AFT-IFTIM, 'Implementation of Directive 2003/59/EC, Survey on driver training issues' (June 2012) p. 55.

⁸⁷ Portugal enacted the transposing legislation only on 27 May 2009 through Law-Decree No. 126/2009, which set 10 September 2009 as the entry into force of the application of the training requirements.

⁸⁸ Consortium Survey is presented in Annex 4.

⁸⁹ Lei n.º 55/2008, de 4 de Setembro, transpõe para a ordem jurídica interna a Directiva n.º 2003/59/CE.

⁹⁰ AFT-IFTIM, 'Implementation of Directive 2003/59/EC, Survey on driver training issues' (June 2012) p. 85.

⁹¹ The maximum extension of seven years applies from the starting dates of the application of the Directive as established in Article 14(2) of the Directive, i.e. 10 September 2008 for buses and 10 September 2009 for trucks. In fact the Directive mentions a period of five years, that can be extended to a period of maximum seven years in order to ensure the gradual introduction of periodic training.

Table 4 Deadline periodic training per Member State

| | 2008 | 2009 | 2012 | 2013 | 2014 | 2015 | 2016 |
|------------|------|------|--------|---|---|-------------------------------------|-----------------------|
| C-licenses | | EE | CY, FR | | AT, BG, CZ, DE, DK, FI, GR, HU, IE, IT, LT, LV, PL, SI, SK, UK | LU, MT, RO | BE, ES, NL, PT, SE |
| D-licenses | EE | | CY, FR | AT, BG, CZ, DE, DK, FI, HU, IE, IT, LT, LV, MT, PL, SI, SK, UK | GR | BE, ES, LU, NL, PT, RO, SE | |

Source: Consortium questionnaire (2014)

Based on Table 4 the following can be concluded:

- Regarding the deadline for periodic training there is a broad time range between Member States. At one end of the spectrum, Estonia has set its deadline at 2008 (buses) and 2009 (trucks). At the other end of the spectrum there is a group of Member States⁹² that have taken the maximum allowed time period of seven years to set the deadlines for the period training.
- As a consequence of the above, professional bus drivers in most of the Member States should have received their first full course of periodic training by now (with the exception of drivers from seven countries having a deadline for training in the future). For truck drivers the situation is different as only three Member States have the deadline for their first full course of periodic training prior to 2014. An estimation on how this is affecting the number of drivers trained and consequently in possession of a CPC is presented in Section 4.5 on output of the Directive.

The Directive has been implemented and transposed in all Member States. As the deadlines of undergoing initial qualification and periodic training differs per Member State and Member States, not all professional drivers have received the first full course of periodic training. Consequently, measuring the effect of the Directive is impacted by this.

The ability of indicating the effect of the Directive is hampered by the fact that most recent reliable statistics on road safety are only available up to 2012, leaving a period from 2008/09 – 2012 in which most drivers were not yet obliged to complete their periodic training.

This effect is also highlighted by the results to the public consultation, where 6% of those respondents who considered that the Directive had an insufficient contributory role to road safety, raised the point that it might be too early to accurately assess the impacts of the Directive since many drivers are yet to perform their first full course of periodic training.

4.2.4 Conclusions

- The Directive has been implemented and transposed in all Member States.
- All new drivers have undergone initial qualification; drivers with acquired rights have partly undergone periodic training. By 2016 all drivers will have obtained a CPC.

⁹² This group includes Belgium, Spain, Luxembourg, the Netherlands, Portugal, Romania and Sweden for the bus drivers and Belgium, Spain, the Netherlands, Portugal and Sweden for the truck drivers.



- Measuring the effects of the Directive is restricted by (i) not all drivers having received training and (ii) most recent reliable road safety data is available for 2012.

4.3 Implementation of the Directive

4.3.1 Introduction

The Directive leaves room for Member States on how the Directive is transposed and implemented. This section concentrates on the way this is done in Member States and notably on the differences between implementation. This as a basis for identifying potential problems related to road safety, level playing field and mutual recognition.

4.3.2 Exemptions

Type of drivers exempt

The Directive excludes several categories of drivers from its scope⁹³. The following table presents whether Member States are fully compliant in the implementation of exemptions, as described in Article 2 of the Directive⁹⁴.

Table 5 Member State compliance with Article 2 on exemptions⁹⁵

| Country | AT | BE | BG | CY | CZ | DE | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | LV | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Compliance | Y | N | na | Y | Y | Y | Y | N | Y | N | Y | N | Y | Y | Y | Y | Y | Y | Y | N | na | N | N | na | Y | Y | Y |

Source: Consortium questionnaire (2014) & CIECA Survey (2010)

Based on Table 5 the following can be concluded:

- A strong majority, i.e. 18 out of 25 Member States that provided information, indicates that they are fully compliant with Article 2 of the Directive.
- Seven Member States indicated that they do not fully comply with Article 2. These cases and how Member States deviate from Article 2 are presented in Annex 2.

Number of drivers exempt

No detailed statistics are available on the number of drivers exempt from the Directive. To get better insight in this number, a question was included in the Consortium questionnaire, asking country representations for an estimate of the percentage of category C or D driving licence holders exempted from mandatory CPC training⁹⁶. The following table presents the results.

⁹³ Directive 2003/59/EC defines that the Directive shall not apply to the drivers of:

- vehicles with a maximum authorised speed not exceeding 45 km/h;
- vehicles used by, or under the control of, the armed forces, civil defence, the fire service and forces responsible for maintaining public order;
- vehicles undergoing road tests for technical development, repair or maintenance purposes, or of new or rebuilt vehicles which have not yet been put into service;
- vehicles used in states of emergency or assigned to rescue missions;
- vehicles used in the course of driving lessons for any person wishing to obtain a driving licence or a CPC, as provided for in Article 6 and Article 8(1);
- vehicles used for non-commercial carriage of passengers or goods, for personal use;
- vehicles carrying material or equipment to be used by the driver in the course of his or her work, provided that driving the vehicle is not the driver's principal activity.

⁹⁴ It should be noted that Table 5 presents the feedback received from the Members States, as included in the Consortium questionnaire (see Annex). This feedback is not verified by the Consultant by checking national legislation.

⁹⁵ Y = compliance; N = no full compliance; na = no information is available.

⁹⁶ See Consortium Questionnaire as included in Annex 4.

Table 6 Number of drivers exempted from application of directive 2003/59/EC

| Country | % exemptions of C or D driving licence holders |
|---------|--|
| CZ | Between 2% - 5% of the total number of drivers |
| DK | Between 5% - 10% of the total number of drivers |
| FI | Less than 2% of the total number of drivers |
| FR | 5% - 10% of total number of drivers for carriage of passenger More than 20% the total number of drivers for carriage of goods |
| GR | More than 20% of the total number of drivers |
| HU | Between 5% - 10% of the total number of drivers |
| IE | Between 2% - 5% of the total number of drivers |
| MT | More than 20% of the total number of drivers |
| NL | Between 10% - 20% of the total number of drivers |
| PT | Between 5% - 10% of the total number of drivers |
| SI | Between 2% - 5% of the total number of drivers |
| SK | More than 20% of the total number of drivers |
| UK | Between 10% - 20% of the total number of drivers |

Source: Consortium questionnaire (2014)

Based on Table 6 the following can be concluded:

- The estimated share of exempt drivers differs considerably between Member States, ranging from less than 2% in Finland to over 20% in France⁹⁷, Greece, Malta and Slovak Republic.
- Responses of only 13 Member States do result in some limitations in terms of full assessment of effects of exemptions. However, based on the information provided an estimate of the overall share of exempted drivers to total drivers holding a C and/or D driving license is estimated at EU level being 13.2%. The calculation is presented in Annex 2, Table 46.
- Table 5 indicates that most Member States (18 out of 25) consider that they are compliant with Article 2. However, there is no strong correlation between the fact that a Member State does not fully comply with the exemption system and a number of drivers it considers to be exempted, as illustrated in Table 6. Apparently there are differences in interpretation of Article 2, as illustrated below.

Differences between Member States in share of exempted drivers occur for various reasons. First, Member States may deviate from exemptions in Article 2, as indicated in Table 5. In addition, the composition of drivers and those represented in the exempted categories may differ from country to country. However, the main reason for variations between Member States on this aspect in our view is the different interpretation of Member States of exemptions under Article 2, notably on paragraphs e (vehicles used in states of emergency or assigned to rescue missions), f (vehicles used in the course of driving lessons for any person wishing to obtain a driving license or a CPC) and g (vehicles used for non-commercial carriage of passenger and goods, for personal use). The difficulty in correctly applying the exemptions is underlined by the fact that the European Commission has created a working group on the regime of exemptions in 2013⁹⁸. This in order to respond to the continuous requests for clarification on exemptions from the Member States. The objective of the working group is to provide recommendations on the application of the exemptions of the Directive. These recommendations should provide clarity and guidance and help creating a more uniform application and a level playing field.

⁹⁷ For drivers for carriage of goods.

⁹⁸ As described in the Minutes of the Meeting of the Committee on the Initial Qualification and Periodic Training of Drivers of Certain Road Vehicles for the Carriage of Goods or Passengers (26 June 2013).



The differences in exemptions cause enforcement problems. Unclear definitions of exempted driver categories lead to legal uncertainty for drivers, companies and administrations.

On the other hand, the differences between Member States related to exemptions create problems in terms of level playing field. This was highlighted also by the general conclusions of the Stakeholder Conference⁹⁹. The fact that in some Member States over 20% of professional drivers are exempted, thus not having to be trained, creates a competitive advantage for those countries, and thus the companies located in those countries, leading to an unlevel playing field. Considering the number of professional drivers involved, and given the stated differences, this problem is substantial when considering the road transport sector overall.

When looking at cross-border operations, an unlevel playing field also appears for drivers residing in different countries given that drivers exempted in one country may not be exempted in another country. Given the relatively small share of cross-border operations related to the categories mentioned in Article 2, this problem is relatively small-scale

4.3.3 Systems of initial qualification

Member States have the option to either establish a system of initial qualification consisting of course attendance in combination with a test or to establish a “test only” system. The way this option is implemented by Member States is presented in Table 7, based on the Consortium questionnaire.

Table 7 The system of initial qualification in the Member States

| Option | Country |
|-----------------|--|
| Test only | AT, BE, CY, GR, IE, LV, MT, NL, PT, RO, UK |
| Course and test | BG, CZ, DK, EE, ES, FI, FR, HU, IT, LT, LU, PL, SE, SI, SK |
| Both | DE |

Source: Consortium questionnaire (2014)

Based on Table 7 the following can be concluded:

- That fifteen Member States have opted for the combination of course and test, while eleven Member States have chosen the “test only” option. Germany has implemented both options. Member States are thus divided in the way they apply the system of initial qualifications.

The public consultation asks whether stakeholders believe that a minimum initial training should be introduced on a mandatory basis in the process of obtaining a CPC, or whether a test would be sufficient. 62% of the respondents state that a mandatory initial training should be included, while 26% state that such initial training is not necessary. Some respondents who are in favour of having a mandatory initial training lined to a test state that training raises the standards of professional drivers, improves driver skills, thus contributing to road safety. Some respondents in favour of having a “test only” system state that the initial training greatly overlaps with the training followed for obtaining the driver’s license and that making initial training compulsory would add to unnecessary burden vested on prospective professional drivers. The public consultation pointed out that stakeholders perceive this discretion

⁹⁹ Ibid.



as not contributing to the establishment of equal conditions for competition, and thus negatively impacting the level playing field among drivers¹⁰⁰.

As discussed later in Section 4.5, there are substantial differences in costs of the above-mentioned initial qualification systems. The system consisting attendance in combination with a test is obviously more expensive. As initial qualification involves all novice drivers, the group confronted with the cost differences which a mandatory system would bring is large. Whether this poses a real problem remains to be seen, as novice drivers are expected to follow training (mandatory or not) before taking a test.

It is the Consultant's opinion that there are indeed pros and cons related to making initial training mandatory, however, no system seems superior. Thus there seems to be no evidence that it is necessary to change the current system as defined in Article 3, as it gives Member States the possibility to choose according to their preference.

4.3.4 Driver age

The Directive establishes the minimum age for driving vehicles intended for the carriage of goods or passengers, in accordance with different criteria such as the driving licence category, the type of the training to obtain the initial qualification (accelerated or non-accelerated initial qualification). The provisions of the Directive regarding the minimum age of drivers differ from the related provisions in Directive 2006/126/EC (Driving License Directive).¹⁰¹ The following table gives an overview of the age limits that are applied in some Member States for both the CPC-Directive and the Driving License Directive.

Table 8 Minimum age limits with and without a CPC across the Member States

| Member State | Minimum age for drivers of C and CE categories | | Minimum age for drivers of D and DE categories | |
|--------------|--|-------------------------------------|--|-------------------------------------|
| | under the Directive | under the Driving License Directive | under the Directive | under the Driving License Directive |
| AT | 18 | 21 | 21 | 24 |
| CZ | 18 | 21 | 21 | 24 |
| DE | 18 | 21 | 21 | 24 |
| DK | 18 | 21 | 21 | 24 |
| EE | 18 | 21 | 21 | 24 |
| FR | 18 | 21 | 21 | 24 |
| GR | 18 | 21 | 21 | 24 |
| HU | 21 | 21 | 24 | 24 |
| IE | 18 | 21 | 21 | 24 |
| IT | 21 | 21 | 24 | 24 |
| LT | 18 | 21 | 21 | 24 |
| LV | 21 | 21 | 24 | 24 |
| MT | 20 | 21 | 21 | 24 |
| PT | 18 | 21 | 23 | 24 |
| SK | 21 | 21 | 24 | 24 |
| UK | 18 | 21 | 18 | 24 |

Source: Consortium questionnaire (2014)

¹⁰⁰ Panteia, Report on the Public Consultation (March 2014), p. 37.

¹⁰¹ For a detailed analysis on the differences between the two Directives, see section 8.2. below.



Based on Table 8 the following can be concluded:

- Twelve out of sixteen Member States apply different minimum ages in Directive 2003/59/EC in relation to the Driving License Directive. The minimum driver age after gaining CPC (in most cases 18 for truck drivers and 21 for bus drivers) is lower than the minimum age as included in the Driving License Directive (in most cases 21 for truck drivers and 24 for bus drivers).
- Other Member States apply the higher minimum age contained in the driving licence directive for both Directives. In Hungary, Italy, Latvia and Slovak Republic the minimum age to obtain a C-driving license with a CPC is 21, and the minimum age for obtaining a D-driving license with a CPC is 24.

Reading Directive 2003/59 as a derogation to the driving licence directive allows drivers that have gained their CPC to start driving at an earlier age than according to the Driving Licence Directive. Providing the opportunity to start the career of professional driver at a younger age could lower the entry barrier to the profession. A potential driver would not have to wait until age 21 or 24 (for truck or bus respectively), but could already start working at age 18 or 21 (for truck or bus respectively). This could potentially attract workers to the sector. The Consultant has been unable to quantify the effect of driver age on sector inflow but industry representatives participating at the Stakeholder Conference and responding to the public consultation highlighted that a lower minimum age can attract more prospective drivers to the industry¹⁰². This may be because many of them leave school around this age in search for employment possibilities and a higher age limit may create a gap between finishing school and possibility to enter the industry¹⁰³. The economic crisis, resulting in reduced demand for drivers, is also a distorting factor. The Consultant believes that the principle of lowering the starting age of the professional driver make the profession more attractive for a young driver.

Also, it must be mentioned that during the Stakeholder Conference, there was a disagreement between the academia and the industry representatives over the impact of lowering minimum ages on road safety¹⁰⁴. The academia argued that lowering minimum ages increases the risk of road accidents, while the industry representatives argued that this can be avoided through an adequate selection criteria, proper training or mentorship programmes.

Another issue is that these differences in minimum age level for drivers between Member States distort competition between firms within the EU. The consultant expects that enterprises that are able to hire 18 year old drivers have a benefit in terms of costs compared to enterprises that need to hire 21 year old drivers. There is also a potential enforcement problem if for instance a 19 years old French truck driver drives to Italy where 21 is the minimum age and gets checked.

4.3.5 Code 95 and mutual recognition

According to Article 10 of the Directive, there are two ways the competent authorities can mark code 95¹⁰⁵,

- On the driving licence.
- On the Driver Qualification Card.

¹⁰² See Stakeholder Conference Report, Panteia (2014), Minutes of the Meeting, pp. 13-16. See Panteia, Report on the Public Consultation (March 2014), p. 47.

¹⁰³ See Stakeholder Conference Report, Panteia (2014), Minutes of the Meeting, IRHA, p. 15. Furthermore, the Irish Road Haulage Association, *inter alia*, stated at the Stakeholder Conference that in particular early school leavers may be interested in joining the profession, for whom entering the profession could represent an alternative for drugs and crime. See Stakeholder Conference Report, Panteia (2014), Minutes of the Meeting, IRHA, p. 14.

¹⁰⁴ Stakeholder Conference Report, Panteia (2014), p. 6.

¹⁰⁵ This is done by adding Code 95 to the driving license or the driver qualification card.

Code 95 marked on a driving license or the Driver Qualification Card issued by Member States is mutually recognised. When the Driver Qualification Card is issued, the competent authorities check the validity of the driving licence whose number is mentioned on the card. Member States may choose any of these two systems. The following table presents an overview of the options chosen by the Member States.

Table 9 Code 95 on driver license or on driver qualification card

| Option | Country |
|--------------------------------------|--|
| Code 95 on Driving License | AT, DE, GR, LT, LV, MT, NL, PL |
| Code 95 on Driver Qualification Card | BG, DK, ES, EE, FR, HU, IE, PT, SE, SK, UK, CY, RO |
| Both | BE ¹⁰⁶ , CZ, FI, IT, LU, SI |

Source: Consortium questionnaire (2014)

Based on Table 9 the following remarks are made:

- The majority of Member States (13 out of 27) have chosen the option of placing Code 95 on a Driver Qualification Card; while 8 Member States opt for placing Code 95 on the driving license and 6 Member States allowing both options.
- Germany plans to issue a separate Driver Qualification Card for a holder of a foreign driving licence.
- In the Netherlands drivers can obtain an exchange certificate to enable them to mark Code 95 on the driving license in their home country. Though this is not an official document and therefore other member States do not have the obligation to recognise it, no problems with recognition of this document are reported by the Dutch authorities¹⁰⁷.

Two problems can be registered in relation to mutual recognition of training of professional drivers, and these problems have been raised repeatedly by MS in the CPC committee. First, the recognition of a completed training followed abroad. Second, the recognition of partial training followed abroad.

The first problem, i.e. recognition of completed training followed abroad, is related to the fact that completed training is proven by the Code 95 on the driving license or on the Driver Qualification Card. This card, issued by Member States, and Code 95 shall be mutually recognised according the Directive. However, problems with the recognition of completed training may occur when foreign drivers attend periodic training courses in Member States that do not issue a Driver Qualification Card, but marks Code 95 on the driving licence. In case of foreign drivers, the host Member State cannot mark this code on a foreign driving licence. The problem culminates when the drivers' home country is not willing to mark Code 95 on the basis of a CPC obtained abroad, since the CPC is not a mutually recognised document. As shown in Table 8, these countries are Austria, Germany¹⁰⁸, Greece, Latvia, Lithuania, Malta, the Netherlands and Poland. Annex 2, Table 44 presents an overview of the policy on mutual recognition per Member State, based on the responses of the Consortium questionnaire (2014). Responses underline the potential for mutual recognition problems in the cases where Member States use the Driving Licenses to mark Code 95 and cannot mark this code on a foreign driving license.

No statistics exist on the size of the problem of non-recognition of training undergone in another country. However, illustrations show that the problem is real and given the

¹⁰⁶ Belgium introduced the Driver Qualification Card in December 2014.

¹⁰⁷ Interview with CBR / CCV

¹⁰⁸ Germany plans to issue driver qualification card in the future.



size of the road haulage sector in some of the Member States, e.g. Germany, the Netherlands, Poland, Austria, the mutual recognition problem is considered to be substantial. The following cases have been provided.

The Consultant has been informed about the number of 100 French drivers trained in Germany in Saarland. Since Germany does not issue a Driver Qualification Card and France does not accept the training certificates of the German training institutes, these 100 drivers are not able to get their training recognised, and will be forced to do the training again in France. The "Landesverband Verkehrsgewerbe Saarland e.V."¹⁰⁹ estimates that around 500 French drivers working in Saarland share this problem¹¹⁰.

The Austrian Economic Chamber, Department for Education and Training, estimates that of the total drivers in Austria around 20% originate from neighbouring countries and have problems concerning mutual recognition because they undergo periodic training in Austria, which does not issue a Driver Qualification Card.

The conclusion on the existence of the problem comes in spite of the observation of some stakeholders participating at the March 2014 Conference indicated that it is unclear whether in practice there is a problem with mutual recognition, and if so, how big it is¹¹¹.

Recognising this problem, two possible solutions were presented in the public consultation. The first option would require the drivers' home Member State, which issued the driving licence, to validate a CPC obtained abroad. The second option would impose the obligation upon the host Member State, where the CPC was obtained, to issue a separate Driver Qualification Card to the driver. The respondents were asked to indicate which of these options are preferred. This resulted in 43% preferring the first option and 31% choosing the second option.

The second problem is related to the recognition of partial training followed abroad. The Directive does not provide directions on how partial training is to be proven. Problems with the recognition of partial training done in foreign countries may occur when partial training is proven by a certificate issued by a training institute or by the competent authority, which is not accepted by other countries. Reasons for rejection vary from difficulties for Member States to verify the authenticity of the training certificate (recognised training centre, recognised course) to difficulties to assess whether the training fits in the national training programme. Member States were asked to indicate the extent of this problem in the Consortium questionnaire. Feedback, as presented in Annex 2, Table 43, illustrates the following:

- Six Member States, i.e. Austria, Germany, Ireland, Malta, the Netherlands and the United Kingdom, indicate that they would be willing to accept partial training undergone in another Member State, if proven by official documents issued by that other Member State.
- Fourteen Member States, i.e. Belgium, Czech Republic, Denmark, Estonia, Spain, Finland, France, Greece, Hungary, Latvia, Poland, Sweden, Slovenia and Slovak Republic, explicitly state they do not accept partial training undergone in another Member State.

¹⁰⁹ A German road transport association

¹¹⁰ Source: DSLV Deutscher Speditions- und Logistikverband e.V., Germany and Landesverband Verkehrsgewerbe Saarland e.V., Germany

¹¹¹ Stakeholder Conference Report, Panteia (2014), p. 7.

Consequently, the willingness of Member States to recognise partial training followed abroad is limited. The Consultant does not have figures on the number of drivers affected. Although mutual recognition is affected, the Consultant expects limited effect on labour mobility. Whether or not a partial training is recognised is not likely to be a decisive factor in choice of residence.

A substantial part (72%) of the respondents to the public consultation indicated to be in favour of establishing a mechanism for the mutual recognition of partial periodic training carried out abroad¹¹². Such a mechanism, in the opinion of the respondents, and could improve the mobility of drivers. It is also worth noting that it was a common observation of these respondents that such a mechanism would only function adequately if a common framework and content syllabus are also created¹¹³, which, in turn, would be favoured by 60% of the stakeholders who responded to the public consultation¹¹⁴.

4.3.6 Abuse and fraud

The Consultant has not been able to find any solid evidence proving the existence of abuses and fraud with regards the requirements of the Directives. The results of data requests sent to Member States on the topic of abuse and fraud seem to indicate that Member States do not have (statistical) evidence on the issue. However, the International Road Safety Association in its report discusses a case of fraud detected in Germany, where it was discovered that certificates were sold for the amount of EUR 200¹¹⁵. At the Public Consultation many respondents, and especially individual respondents, expressed their concern about fraud, and it was mentioned that fraud in especially eastern European countries is common. However, despite requests to submit evidence of such fraud to the Consultant no evidence of such practises was received.

4.3.7 Conclusions

In general it can be concluded that where the Directive gives Member States options on implementation of provisions as included in the Directive, Member States select their own approach, resulting in a divided landscape on issues such as exemptions, systems of initial qualifications, minimum driver age and means of providing proof of CPC. Variations are further created as a result of different interpretations of the Directive by Member States, for example on exemptions.

The lack of a harmonised approach results in the following problems:

- Enforcement problems due to different interpretations of exemptions;
- Non-level playing field due to a different application and interpretation of exemptions, due to different systems and hence costs of initial qualification systems and due to differences in the minimum age to obtain a CPC;
- Restricted mutual recognition of periodic training,;
- Attractiveness to the profession for young drivers thanks to the fact that access at a younger age is made possible.

¹¹² See Panteja, Report on the Public Consultation (March 2014), p. 86.

¹¹³ Ibid., p. 88.

¹¹⁴ Ibid., p. 77.

¹¹⁵ International Road Safety Association e.v., 4. *ad hoc*-AG-Sitzung BKF (5 November 2013)



4.4 Format and contents

4.4.1 Introduction

This section also focuses on how the Directive has been implemented in the Member States, but in this case specifically in relation to the format and the contents of the training programme. The differences in implementation will be analysed as a basis for an assessment of problems related to road safety, level playing field and mutual recognition.

4.4.2 Duration and timing of Periodic training

The duration of the periodic training is 35 hours every five years, given in sessions of at least seven hours, as mentioned in Section 4 of Annex I of the Directive. The table below presents how periodic training, in terms of duration and timing, is implemented in the Member States.

Table 10 Periodic training – duration and timing

| Country | AT | BE | BG | CY | CZ | DE | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | LV | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|-------------------------------|----|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Single session | y | y | y | n a | y | y | y | y | y | y | y | y | y | | | y | | | | y | y | | y | y | y | | y |
| Split sessions ¹¹⁶ | y | y | n | n a | y | y | y | n | y | y | n | n | n | y | y | y | y | y | y | y | y | y | y | y | y | y | y |

Source: Consortium questionnaire (2014)

(y = allowed, n = not allowed; na = not available)

Based on Table 10 the following can be concluded:

- The majority of Member States (21 out of 26¹¹⁷) allow drivers to attend single sessions of seven hours. Only in Bulgaria, Estonia, France¹¹⁸, Greece and Hungary 35 hours of training need to be made during consecutive days. In Member States that provide a “y” score on both single and split sessions, both systems are allowed.
- The following country specifics were provided in the Consortium questionnaire: in the Czech Republic at least one session of seven hours is required annually; in Denmark 37 hours of training is required every five years; and in France a block of 3+2 days of training needs to be implemented in maximum three months.

The public consultation shows that 69% of the respondents would prefer the distribution of the required 35 hours over the period of five years. Only 10% of the respondents considered that concentrating the training in one block period would be a better solution. The latter group states that concentrating the training is more cost-efficient. Those supporting the split sessions approach argues that this allows training to respond to evolving needs in terms of changing regulations and technical developments. In addition, enterprises may be better able to plan the training of the drivers, when training is done in split sessions.

During interviews several stakeholders have indicated that the obligation to do training in consecutive days restricts the possibility for efficient planning at the level of enterprises. The need to do training in one single session may have negatively

¹¹⁶ Split sessions are based on 5 sessions of 7 hours.

¹¹⁷ The Consortium questionnaire was not responded by Cyprus on this subject.

¹¹⁸ In France this can be done in two blocks of 2 and 3 days, as remarked in the second bullet.

affect the costs of enterprises involved, thus leading to a non-level playing field. Given the relatively limited number of Member States involved, this problem is expected to be limited.

4.4.3 Contents of the training - national syllabus

According to the Directive, periodic training shall consist of training to enable professional drivers to update the knowledge which is essential for their work, with specific emphasis on road safety and the rationalisation of fuel consumption. The current system of the Directive only stipulates that the periodic training should be based on some of the subjects listed in Section 1, Annex I to the Directive, while leaving Member States and training organisations with a broad discretion to determine the content and other aspects of the training. On the contents of the training, some Member States have developed a national syllabus, as presented in the table below.

Table 11 National syllabus

| Country | AT | BE | BG | CY | CZ | DE | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | LV | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| National syllabus | n | y | n | n | y | n | n | y | n | n | y | n | y | y | n | y | y | n | n | n | n | y | n | n | n | n | n |

Source: Consortium questionnaire (2014)

Based on Table 11 the following can be concluded:

- Only nine out of 27 Member States have developed a national syllabus for periodic training.

When looking also at the results of the public consultation, it is apparent that 60% of the respondents would prefer a uniform European syllabus¹¹⁹. It is a common observation of these respondents that such a uniform syllabus would contribute to the levelling of the playing field while also ensuring that drivers do not repeat the same training modules twice. Only 34% of the respondents do not support such a uniform syllabus. They argue that a uniform syllabus would not be sufficiently flexible to take into account the drivers' individual training needs.

The Consultant has asked Member States to describe the contents of the periodic training¹²⁰. Feedback from the Member States is presented in Annex 2, Table 44, with some results summarised below:

- A common response is that Member States have based their training programme on Annex I of the Directive. Some Member States have added minimum requirements for inclusion of eco-driving. Finland, for example, requires at least seven hours on safety and eco-driving, and Belgium requires at least one module of three hours of practical lessons on rational and eco-driving to be included in the programme.
- Some Member States consider to extend the programme beyond the scope of Annex 1 of the Directive, based on demands from the drivers. In Germany, for example, drivers indicated a demand for first aid training.
- A number of Member States indicate in their responses the inclusion of practical training, for example Belgium in the case of eco-driving, as mentioned above.
- Sometimes, e.g. in Bulgaria, the training programmes are responsible for defining the training programmes, which are then checked on compliance by the national administration. In other cases, as illustrated in Table 10, more direction on the

¹¹⁹ See Panteia, Report on the Public Consultation (March 2014), p. 79.

¹²⁰ This is done through the consortium questionnaire (2014), as presented in Annex 4.



contents of the training programme is provided by the creation of a national syllabus.

Asked to what extent the subjects listed in Annex I on training are relevant for the objectives of the Directive, 82% of the respondents to the public consultation state that the subjects of Annex I are relevant, but disagree as to the level of their importance. 34% indicate that the subjects are very relevant, while 48% mention that the subjects are only somewhat relevant to the objectives of the Directive. When asked to indicate what areas should be included (in addition to Annex I), amongst others the following aspects were mentioned: key road risk factors (e.g., speed, alcohol, drug, non-use of seatbelts, etc.); vulnerable road users; first aid; training in abnormal cargo.

Based on the information provided by the Member States, and information that was given during interviews¹²¹, it can be concluded that there is a wide variety regarding the content of the periodic training across Member States. This variety applies to the coverage of items, as well to the extent that guidance is provided in setting up a training programme. i.e. through a national syllabus. Furthermore, the Directive does not mandate the inclusion of a practical training within the framework of the periodic training, creating a division among the Member States as to incorporate a practical element or maintain only a theoretic training. This wide discretion paved the way for the growing problem of insufficient uniformity in the periodic training across the Member States.

The Member States' degree of flexibility extends also to the possibility of combining other courses with the CPC training. A clear example is the ADR course, which is required under Directive 2008/68/EC. Such courses have been introduced into the periodic training of professional drivers in the Czech Republic, the Netherlands, Finland and the UK, but in other Member States this combination is not allowed.

The lack of uniformity is likely to be at the basis of, or at least contribute to, problems related to mutual recognition, as presented in Section 4.3.5. In addition, lack of uniformity may hamper the effectiveness of the Directive related to the road safety objective. More specific analysis presented on how road safety is included in training in the Member States is presented in the next section.

4.4.4 Road safety elements in CPC training

The present section will consider the Member States' varying approaches on the choice of the content (in particular the road safety subjects) covered in the periodic training. At the outset, it must be noted that the results of the public consultation showed that 48% of the stakeholders consider the subjects of Annex I only somewhat relevant for contributing to road safety (with a high majority of these stakeholders being training organisations).¹²² The respondents argued that the reason for this is that Annex I has not been revised in the past decade, during which a number of developments took place, in particular in the field of vehicle safety technology. One example would be the Directive's requirement that drivers know about the features and functioning of vacuum ratified hydraulic pneumatic brake system which is no longer used in trucks. Furthermore, the stakeholders also highlighted a number of safety related subjects that are not covered by Annex I (e.g., courses teaching interaction with vulnerable

¹²¹ During interviews it was mentioned that in some cases drivers took the same course of 7 hours 5 times in 5 years. Others mentioned the possibility in the Netherlands to follow 28 hours of ADR training needed for the ADR certificate, followed by 7 hours practical driving training.

¹²² See Panteia, Report on the Public Consultation (March 2014), p. 67.

road users such as pedestrians and cyclists, training in transport of abnormal cargo, or vehicle loading and unloading with product specific training (i.e., food and drink, ADR, etc.)).¹²³ This indicates that the stakeholders do not perceive Annex I of the Directive to be sufficiently road safety oriented. Indeed, some stakeholders highlighted that Annex I also includes subjects which are not very relevant for the purposes of the Directive.

With respect to initial qualification, the Member States' training subjects are generally consistent with Annex I. In the context of periodic training, however, which should expand and revise the subjects covered during the initial qualification,¹²⁴ Member States have adopted differing approaches on what must be covered. In the Netherlands, for instance, drivers are free to choose their course from a pool of 200 approved courses by the competent authority. They must opt for one practical course (on topics such as eco-driving or manoeuvring) but for the remaining courses maximum flexibility is given.¹²⁵ As the public consultation highlighted, this could result in one driver completing multiple modules of the periodic training on the same topic which could undermine the periodic trainings envisaged positive effect on road safety.¹²⁶ In other Member States such as Austria, the training programme is set out for every category of driver. Again in other Member States, such as Germany or Lithuania, there are certain mandatory training courses for all types of drivers, followed by specialized training for truck and bus drivers separately.

Overall, this level of difference indicates that road safety subjects are covered to different extent in the Member States. Furthermore, the lack of a minimum subjects to be covered during the periodic training entails that in practice road safety contents may be neglected (or repeated on multiple occasions) while Member States' could still comply with the Directive by maintaining a range of available course choices from Annex I. The insufficient focus on road safety subjects in some Member States may hinder the effectiveness of the Directive in terms of road safety.

4.4.5 E-learning

The use of e-learning

The following table shows whether or not e-learning is allowed in the Member States during initial qualification and during periodic training.

Table 12 Overview of the use of e-learning in training

| Country | AT | BE | BG | CY | CZ | DE | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | LV | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Initial qualification | t | t | n | t | n | n | n | y | n | n | n | t | y | t | n | n | n | t | t | t | n | t | t | n | n | n | t |
| Periodic training | y | n | n | n | n | n | n | y | n | n | n | n | y | n | n | n | n | n | n | y | n | n | n | y | n | n | n |

Source: Consortium questionnaire (2014)

(to = test only; na = not available; y = allowed; n = not allowed).

Based on Table 12 the following can be concluded and remarked:

¹²³ Ibid., pp. 68-69.

¹²⁴ Article 7(3) of the Directive.

¹²⁵ Findings based on the responses to the Consortium questionnaire (2014).

¹²⁶ See Panteia, Report on the Public Consultation (March 2014), p. 31.



- E-learning is allowed during initial qualification in Estonia and Hungary. During periodic training e-learning is allowed in Austria, Estonia, Hungary, the Netherlands and Sweden.
- In Austria e-learning is allowed only for subjects referring to Annex I of Directive 2003/59/EC that require no practical exercises. So far only one training centre has been approved that provides, in part, e-learning hours.
- In Estonia e-learning is allowed in the optional subject of working environment and traffic safety.
- In the Netherlands e-learning is allowed, but not more than 4.5 hours per training day.

Effects of e-learning

Previous research on e-learning, as presented in the first findings of desk research above,¹²⁷ showed that its benefits consist of consistent training across multiple locations as well as reduced costs.¹²⁸ These advantages could also apply to CPC training as lowering costs and increasing the harmonization of training material are two concerns which are also mentioned in the public consultation and the consortium questionnaire.

There are also disadvantages of e-learning. This technique is not equally effective for all users and it requires computer skills that not everyone may have. Furthermore, e-learning may seem more suitable for younger generations who are familiar with digital technology. Additionally, e-learning targets cognitive learning outcome, and is better suited to develop knowledge than practical skills (which would be required in the profession of drivers).

The question whether e-learning could make a useful contribution to training and therefore can partially replace in-house training is raised in the public consultation. The initiative of e-learning received a support from the respondents; 60% considered it as a useful contribution to the training, while 35% disagreed. Positive elements of e-learning mentioned in the public consultation are that the system would facilitate the delivery of highly theoretical content, and do so with a greater level of flexibility than classroom based learning (for example allowing candidates to incorporate their mandatory hours into a personal package that suits them and their work schedule), while reducing training costs. Most respondents admit, nonetheless, that e-learning should not replace in-house trainings altogether. A large number of respondents also stress that e-learning should only be used as a complementary tool, and not as a full replacement of class-room teaching.

Based on theoretical research and feedback provided by the public consultation, it is the Consultants opinion that e-learning can have a role in CPC training. However, it is more suitable for use in specific circumstances, such as training on cognitive learning outcomes and initial training and less in others. The effective use of e-learning should therefore be thoroughly considered before implementation.

4.4.6 Driving simulators

The use of driving simulators

The following table shows whether or not driving simulators are allowed in the Member States during initial qualification and during periodic training.

¹²⁷ See Section 3.2.3.

¹²⁸ Welsh, Wanberg, Brown & Simmering (2003). E-learning: emerging uses, empirical results and future directions. *International Journal of Training and Development*, 7:4, 245-258.

Table 13 Overview of the use of driving simulators

| Country | AT | BE | BG | CY | CZ | DE | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | LV | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Initial qualification | t | t | n | t | y | y | y | y | y | y | y | t | y | t | y | y | y | t | t | t | n | t | t | n | n | y | t |
| Periodic training | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | y | n | y | y | y | y | y | y | y | y |

Source: Consortium questionnaire (2014)
(to = test only; na = not available; y = allowed; n = not allowed).

Based on Table 13 the following can be concluded and remarked:

- Driving simulators are not allowed during initial qualification in Poland, Sweden and Slovenia but are allowed in all other countries which provide mandatory initial training. During periodic training driving simulators are allowed in all countries, except Malta.
- Some Member States place restrictions on the maximum duration of simulators, i.e. eight hours in Spain and four hours in France for initial qualification.

The effects of the use of driving simulators

Previous research inquiring into the relevance of simulators for driver training¹²⁹ indicated that reliance on simulators may bring benefits in the case of training of higher-order tasks (such as situational awareness or risk perception) and procedural tasks. Nonetheless, simulators are less effective in case of tracking tasks (for instance speed maintenance) or training for assessing emergency situations.

When asked at the public consultation whether the use of top-of-the-range simulators during training is useful and therefore should be made mandatory, 65% responded negatively and 27% responded positively.

The conclusion of the Consultant is, in line with most respondents of the public consultation, that while simulators can be useful their use should not be made mandatory, given the fact that high-end driving simulators are very expensive and mandatory use would strongly limit the possibilities of drivers to attend training courses.

4.4.7 Testing periodic training

The Directive does not mandate the validation of a completed periodic training through a test. This resulted in most Member States requiring only attendance of the 35-hour training without any further verification of the drivers' level of knowledge. The public consultation explores the stakeholders' opinion on whether a test should be introduced after the periodic training. The respondents are divided over this matter; 49% indicate that a test is needed after the periodic training, while 48% state that a test after periodic training is not a necessity.

The public consultation provides more insight in the perceived pros and cons of testing of periodic training. As stated in the Report on the Public Consultation¹³⁰, it is a common observation of those respondents who furthered a preference for a test after the periodic training, that it is important to give an indicator of the drivers' learning progress and level of knowledge. This would increase the participants focus and motivation towards the subject materials, while giving the training and the CPC as a

¹²⁹ Ivancic & Hesketh (2000). Learning from errors in a driving simulation: effects on driving skill and self-confidence. *Ergonomics* 43:12, 1966-1984. Roenker, Cissell, Ball, Wadley & Edwards (2003). Speed-of-processing and driving simulator training result in improved training performance, *Human Factors*, 45:2, 218-233.

¹³⁰ Panteia, Report on the Public Consultation (March 2014).



whole an elevated status in the industry. A number of respondents from the training organisations argue that introducing a test requirement, as a harmonized approach across the EU, would facilitate the mutual recognition of the driver CPC among the Member States. Some respondents object to the establishment of a very stringent test since this would put unnecessary burdens on the driver. Adding to this observation, the public consultation response indicates that the consequences of failing such a test should be proportionate, and the driver should be allowed further opportunities to take the test without hindering his ability to carry on his work.

It is a common observation of those respondents who do not wish to see an assessment at the end of the periodic training, that the objective of the periodic training is to update the drivers' knowledge and skills, and not to examine them periodically. Furthermore, some respondents maintain that there are current uncertainties relating to the quality of the training, which is not harmonized in-depth across the EU. Such a system, in the view of the respondents, may be perceived as a penalization of the drivers rather than contributing constructively to the development of their skills and knowledge.

Also based on the results of the interviews with stakeholders, it is the Consultant's opinion that validating periodic training through a test is indeed a balancing act. There is a trade-off between on the one hand the benefits of the ability to measure the drivers' learning progress; increased motivation for the training; increased status of CPC; and, if harmonised at EU level, improved mutual recognition. On the other hand there are disadvantages related to the burdens on the drivers; possible negative effects for the driver through examination; and the fact that training currently is implemented differently in the Member States, as described in Section 4.4.2, providing a weak basis for testing, in any way at harmonised EU level.

4.4.8 Conclusions

Member States implement training of professional drivers differently across Europe, both in terms of content of the training (coverage of items, inclusion of practical training) and to the extent that guidance is provided in setting up a training programme (national syllabus).

The lack of a harmonised approach results in the following problems:

- Lack of uniformity in the training hampers the effectiveness of improving road safety. In addition, the process of mutual recognition is negatively affected by vast differences in training.
- E-learning can have a role in CPC training, specifically for training on cognitive learning outcomes and initial training. The effective use of e-learning should be thoroughly considered before implementation.
- Simulators can be a useful addition in training, notably in higher-order tasks (situational awareness, risk perception) and procedural tasks.
- Testing of periodic training comes with pros and cons, which needs to be carefully balanced.

4.5 Output of the Directive

4.5.1 Introduction

This section focuses on what the Directive has delivered in terms of output, by looking at number of drivers having obtained a CPC, the number of accredited training centres and the costs of training. This as a basis for assessing economic impacts.

4.5.2 Number of drivers with CPC

The following table shows the number of CPCs issued since the start of the system until the end of 2012 in a number of Member States¹³¹.

Table 14 Number of CPCs issued until the end of 2012

| | 2008 | 2009 | 2010 | 2011 | 2012 | Aggregated CPCs issued until end 2012 (C and D licenses) | In % of number of drivers 2012 (C and D licenses) ¹³² | Periodic training deadline (C and D licenses) |
|-----------------------|--------|--------|--------|---------|---------|--|--|---|
| CZ | 46,267 | 36,998 | 7,665 | 9,867 | 11,496 | 112,293 | 75% | 2014/2013 |
| DK | 469 | 6,182 | 20,177 | 17,348 | 18,060 | 62,236 | n.a. | 2014/2013 |
| ES | 0 | 2,822 | 18,226 | 77,483 | 165,956 | 264,487 | 78% | 2016/2015 |
| FR | | | | | | 773,107 | n.a. | 2012/2012 |
| FI | 112 | 3,222 | 13,279 | 17,148 | 18,239 | 52,000 | 91% | 2014/2013 |
| GR | 1 | 686 | 3,289 | 5,777 | 6,784 | 16,537 | 28% | 2014/2014 |
| HU | 0 | 2,624 | 14,381 | 20,270 | 25,763 | 63,038 | 51% | 2014/2013 |
| IE | 157 | 4,519 | 18,622 | 24,048 | 25,579 | 50,157 | n.a. | |
| MT | | | | | | 440 | 21% | 2014/2013 |
| NL | | | | | | 33,361 | 35% | 2016/2015 |
| SE | 76 | 2,236 | 10,268 | 12,781 | 13,492 | 29,821 | 36% | 2016/2015 |
| SI | | | | | | 6,060 | 30% | 2014/2013 |
| SK | | | | | | 18,838 | 31% | 2014/2013 |
| UK | 771 | 22,256 | 91,708 | 118,413 | 125,970 | 822,938 | n.a. | |
| Average till end 2011 | | | | | | | 32% | |
| Average till end 2012 | | | | | | | 60% | |

Source: Consortium questionnaire (2014)

Based on

Table 14 the following can be concluded and remarked:

- In order to get some insight in the number of drivers that acquired a CPC since the implementation of the Directive in relation to the total number of drivers, the last columns show the deadline for periodic training in a number of countries and the percentage of issued CPCs until the end of 2012 in comparison with the estimated total number of drivers holding a C and/or D license.
- The number of CPCs issued in the eight Member States are used as a basis to extrapolate the number of CPCs issues at EU level. As a results it is estimated that since the start of the system around 32% of the total number of drivers holding a C and/or D driving license have been issued a CPC until the end of 2011 and around 60% until the end of 2012. This number is destined to increase further as the periodic training requirements for drivers with acquired rights kick in in all Member States.

The above adds to the conclusion presented in Section 4.2 related to the limited ability to measure the effect of implementation of the Directive.

¹³¹ Source Consortium questionnaire Survey

¹³² For Denmark, France, Ireland and the United Kingdom, the share of drivers was not calculated given discrepancy between numbers received through the survey as presented in the table, and the total estimated number of drivers subject to training provisions.



4.5.3 Number of accredited training centres

The Directive states that only training centres which have been approved by the competent authorities of the Member States should be able to organise the training courses laid down for the initial qualification and periodic training. The next table shows the number of accredited training centres in a number Member State¹³³. To be able to make a comparison, also a column is shown with the ration between the number of drivers of a country and the number of training centres.

Table 15 Number of training centres

| Country | Training centres | Drivers/centre | Country | Training centres | Drivers/centre |
|-------------------|------------------|----------------|---------------------|------------------|----------------|
| CZ | 568 | 263 | LV | 106 | 182 |
| DK | 40 | 948 | MT | 2 | 1.062 |
| EE | 49 | 383 | NL | 900 | 107 |
| FI | 496 | 115 | PT | 684 | 121 |
| FR | 264 | 1.341 | SE | 250 | 327 |
| GR | 500 | 117 | SI | 20 | 999 |
| HU | 296 | 421 | SK | 125 | 487 |
| IE | 400 | 68 | UK | 1.400 | 230 |
| LT | 21 | 1.492 | Weighted Average | | 252 |
| LU ¹³⁴ | 1 | 3424 | | | |

Source: Consortium questionnaire (2014), consortium calculations

Based on Table 15 the following can be concluded and remarked:

- The number of accredited training centres strongly varies per Member State. The same goes for the average number of drivers that are covered per training centre, ranging from 68 in Ireland to 3,424 in Luxembourg.
- On the basis of the information in the table, on average in the EU the number of drivers per training centre is estimated at 252.
- Given the total number of drivers relevant for the Directive of 3.602.583, and if we take the average of 252 drivers per centre for countries with no information about the number of centres, we estimate the number of training centres at 14,296.

It is the Consultant's opinion that the variation per Member State in number of accredited training centres and the average number of drivers covered by one training centre does not pose a problem in itself. The bottom line is the adequacy of resources to the demand for training and the quality of the training provided. A very low number of training centres may be a restriction in terms of choice for the enterprise of the driver, and the accessibility of the training centre for the driver. A large number of training centres may be more challenging in terms of managing and checking the quality of the training and ensuring a coherence and minimum level of training between training centres within one country.

Section 5 of Annex I to the Directive requires that Member States' competent authorities approve the training centres for the purposes of the CPC. While the required documents to support an application of a training centre are enlisted, the Directive's provisions leave it to the competent authorities to determine what characteristics the training premises should have. The public consultation asks whether more detailed instructions should be established on the requirements that

¹³³ Source Consortium questionnaire.

¹³⁴ In the calculation the extreme value for Luxembourg was not taken into account.

must be demonstrated by prospective training centres. 58% of respondents state that there is a need for more detailed requirements for the approval of training centres, while 31% state that this is not needed. According to the public consultation report¹³⁵, the respondents that support more detailed instructions consider this mechanism as a tool to harmonize the quality of training and the training environment, e.g. through the approval of facilities and trainers based on common standards. They argue that the current accreditation aspects included in the Directive are too vague, and fail to contribute to adequately harmonizing the quality of training and trainers across the EU. Furthermore, such a standardized approach would foster mutual recognition of the CPC among the Member States. Those who are against more detailed instructions state that the system is currently functioning properly (in terms of approval of facilities). A more stringent set of conditions would risk higher costs and adding requirements would possibly not meet local conditions.

On the basis of the wide variety of the number of training centres in relation to the number of drivers in Member States and the call for a better quality control system of training centres, the Consultant concludes that more detailed requirements for training centres could contribute to the realisation of the objectives of the Directive.

4.5.4 Costs of training and funding

Costs of training

The following table shows the results of the Consortium survey questions on costs of training in the Member States, where necessary and possible complemented with information from other studies¹³⁶ and results from interviews with training institutes.

Table 16 Costs of initial qualification and periodic training (EURO)

| | Initial training & test (140 hours) | Initial training & test (280 hours) | Test only system | Periodic training (35 hours) | Periodic training (35 hours), corrected for PPP (2012) |
|----|-------------------------------------|-------------------------------------|-------------------|------------------------------|--|
| AT | Not relevant | Not relevant | 280 | 250 | 237 |
| BE | Not relevant | Not relevant | 400 | 600 | 552 |
| BG | No data received | No data received. | Not relevant | 170 | 352 |
| CY | Not relevant | Not relevant | 68 | 50 | 57 |
| CZ | 1,000 | No data received. | Not relevant | 197 | 273 |
| DE | 3,500 | No data received. | No data received. | 600 | 593 |
| DK | 2,234 | 4,468 | Not relevant | 560 | 399 |
| EE | 450 | 1,350 | Not relevant | 160 | 208 |
| ES | No data received | No data received. | Not relevant | 165 | 174 |
| FI | 3,500 | 7,000 | Not relevant | 750 | 616 |
| FR | 4,500 | No data received. | Not relevant | 600 | 555 |
| GR | Not relevant | Not relevant | 40 | 110 | 119 |
| HU | No data received | No data received. | Not relevant | 170 | 282 |
| IE | Not relevant | Not relevant | 280 | 250 | 214 |
| IT | No data received | No data received. | Not relevant | 700 | 683 |
| LT | 750 | No data received.. | Not relevant | 215 | 336 |
| LU | 2,800 | 4,500 | Not relevant | 960 | 786 |
| LV | Not relevant | Not relevant | 93 | 70 | 98 |
| MT | Not relevant | Not relevant | 70 | 50 | 64 |
| NL | Not relevant | Not relevant | 150 | 800 | 743 |

¹³⁵ Panteia, Report on the Public Consultation (March 2014).

¹³⁶ CIECA (2010) and ETF/IRU (2013)



| | Initial training & test (140 hours) | Initial training & test (280 hours) | Test only system | Periodic training (35 hours) | Periodic training (35 hours), corrected for PPP (2012) |
|----|-------------------------------------|-------------------------------------|------------------|------------------------------|--|
| PL | 1,690 | 2,165 | Not relevant | 250 | 441 |
| PT | Not relevant | Not relevant | No data received | 240 | 279 |
| RO | Not relevant | Not relevant | No data received | 80 | 144 |
| SE | No data received | 3,800 | Not relevant | 480 | 373 |
| SI | 600 | No data received | Not relevant | 200 | 241 |
| SK | 650 | 850 | Not relevant | 150 | 213 |
| UK | Not relevant | Not relevant | 304 | 433 | 372 |

Source: Consortium questionnaire survey, CIECA (2010), ETF/IRU (2013)

Based on the table the following can be concluded and remarked:

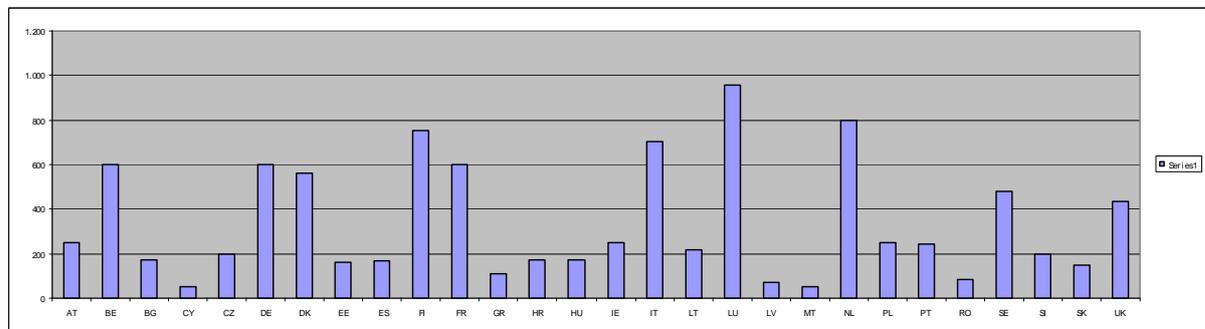
- The table shows a wide variety of costs, both in terms of initial qualification and periodic training. It should be noted that notably on initial qualification, the information collected is far from complete.
- The costs for initial qualification varies between EUR 450-1,350 (140, 280 hours initial training respectively) in Estonia to EUR 3,500-7,000 in Finland. The test only system has considerably lower costs, ranging from EUR 40 in Greece to EUR 400 in Belgium.
- The costs of periodic training vary from EUR 50 in Malta to EUR 960 in Luxembourg. Corrected for PPP the range is from 57 in Cyprus to 786 in Luxembourg.

The vast differences between costs for initial qualification and periodic training result in problems related to level playing field. Member States with low training costs obviously have a competitive advantage over Member States with high training costs. Price differences for periodic training are reviewed in more detail below, focusing on differences in Purchasing Power Parity (PPP).

Periodic training costs, corrected for Purchasing Power Parity

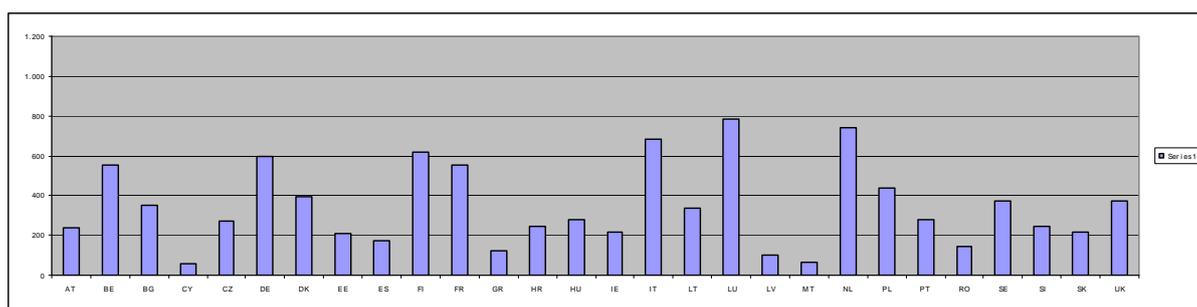
The following graphs show the costs of periodic training, both in absolute terms and corrected for Purchasing Power Parity¹³⁷.

Figure 5 Costs of periodic training (EURO)



¹³⁷ http://epp.eurostat.ec.europa.eu/portal/page/portal/purchasing_power_parities/data/main_tables

Figure 6 Costs of periodic training (EURO, corrected for PPP – 2012)



Based on the figures above the following can be concluded and remarked:

- Variations in periodic training costs are illustrated. Figure 6 shows that differences in periodic training costs are smaller when expressed in PPP. Differences remain however extremely large considering that they are expressed in PPP, the costs of periodic training varies from EUR 57 to EUR 786
- The previous conclusion on non-level playing field that the vast differences between costs for initial qualification and periodic training result in problems related to level playing field remains. Member States with low training costs obviously have a competitive advantage over Member States with high training costs.

Financing

While initial training is usually covered by the trainees themselves, a wide variety of financing models exist across the Member States for periodic training. Periodic trainings may be financed by a driver, the employer, a combination or through a dedicated structure, involving the State. The following table gives an overview of responsible parties of financing of the training¹³⁸.

Table 17 Who bears the periodic training costs

| Country | AT | BE | BG | CY | CZ | DK | EE | ES | FI | FR | GR | HU | IE | IT | LT | LU | MT | NL | PL | PT | RO | SE | SI | SK | UK |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Driver | x | | x | x | | | x | x | | | x | x | | x | x | | | | | x | x | | x | x | |
| Employer | | x | | | | | | | x | x | | | | | | | x | x | | | | x | | | |
| Mixed | | | | | x | | | | | | | | x | | | | | | x | | | | | | x |
| Other | | | | | | x | | | | | | | | | | x | | | | | | | | | |

Source: CIECA (2010) and ETF/IRU (2013)

Based on Table 17 the following can be concluded and remarked:

- In the majority of Member States (13 out of 25¹³⁹) the driver pays for his periodic training. In six Member States (Belgium, Finland, France, Malta, the Netherlands, Sweden) the employer pays for the periodic training.
- In the case of the Czech Republic, Ireland and Poland it is stated that the driver in principle pays, however, sometimes the employer. The United Kingdom states that costs are shared between driver and employer.

¹³⁸ Based on CIECA (2010) and ETF/IRU (2013).

¹³⁹ We were unable to get information on Germany and Latvia.



- In two cases special regimes are applied. Denmark has established the AMU programme for adult vocational training, based on a mixed contribution of the driver and the State. In Luxembourg the cost of periodic training is split between the employer, paying two-thirds of the costs of the training, and the State paying for the remaining one-third.

Whether training counts as working time also differs per Member State. In France, for example, a law is passed that states that the periodic training hours are considered as working time¹⁴⁰. In Lithuania, the law¹⁴¹ states that the workplace or training centre is included in the working time. More detailed information on who bears the costs of training is provided in Table 47 in annex 2.

In most Member States the costs of initial qualification are born by the (future) driver. However, there are some initiatives supporting the (future) driver, as outlined below:

- In Belgium there are funds to help drivers cover the costs of initial qualification such as Transport and Logistics Social Fund and The Social Fund for Workers in Public and Special Services Companies and in Coach Services.
- In Luxembourg the costs of the initial qualification and the accelerated initial qualification are fully covered by the State.

4.5.5 Conclusions

- The number of CPCs issued is estimated to be around 35% of the total number of drivers holding a C and/or D driving license by the end of 2011, and around 63% by the end of 2012. Consequently, the ability to measure the effect of implementation of the Directive is somewhat limited.
- The number of accredited training centres and the average number of drivers that are covered per training centre strongly varies per Member State.
- Costs for initial qualification and periodic training; the party that pays for training and whether training is carried out in working or free time strongly varies across the Member States. All this results in costs differences between enterprises in different Member States and thus unlevel playing field.

¹⁴⁰ Article 9 of Decree No 2007-1340 (11 September 2007).

¹⁴¹ Article 143 of the Labour Code.

5 Economic impacts

5.1 Introduction

In this paragraph we first explore the economic effects of the Directive in terms of regulatory costs related to the Directive for drivers, enterprises and administrations. The calculation of costs will specifically take into account the impact on SMEs. Furthermore, the economic impact of the Directive will be assessed in terms of impact on level playing field for transport companies. Elements analysed include the costs of training, level playing field in view of exemptions, and the level of harmonisation of training content and execution. The analysis will specifically take into account the impact on SMEs. Lastly, the impact on the mobility of drivers will be assessed.

5.2 Regulatory costs

In the assessment of costs for stakeholders caused by the implementation of Directive 2003/59/EC the Standard Cost Model (SCM)¹⁴² is applied. Four stakeholder categories are identified: enterprises, drivers, trainees (student drivers) and public administrations. The components of the cost categories are as follows:

$$\text{Total regulatory costs (TC) = Implementation Costs (IC) for public administrations} \\ + \text{Compliance Costs (CC) for enterprises / drivers}$$

The following table gives an overview of the cost components that will be taken into account in the calculation of total regulatory costs. The table shows the cost components, the cost categories, and the bearer of costs.

Table 18 Cost components regulatory costs

| Cost components | Cost category | Bearer of costs |
|--|----------------------|---------------------------------------|
| Time spend on training (value of leisure time) associated with initial qualification | Substantive costs | Trainees |
| Training and test fees associated with initial qualification | Substantive costs | Trainees ¹⁴³ |
| Issuing of driver qualification card or marking code 95 on driving license after initial training (time spend and administration fees) | Administrative costs | Trainees |
| Training fees and opportunity costs (wages / lost profits) associated with periodic training | Substantive costs | Enterprises Drivers Governments |
| Renewal of driver qualification card / code 95 on driving license after periodic training (time spend and administration fees) | Administrative costs | Drivers |
| Administrative costs for enterprises to maintain an administration on training of staff, including registration, reporting and monitoring of training followed by staff. | Administrative costs | Enterprises |
| Certification of training centres and quality control | Implementation Costs | Governments |
| Enforcement actions | Implementation Costs | Governments |

The following paragraphs present the results of the calculations. Detailed calculations are presented in annex 3.

¹⁴² See European Commission website on Reducing Regulatory Burden.

¹⁴³ Costs of Initial qualification via a regular schooling system are (partly) paid by governments



5.2.1 Compliance costs for enterprises and drivers

Compliance Costs (CC) are defined as Substantive Costs (SC) plus Administrative Costs (AC).

Substantive costs initial qualification

- Substantive costs (hourly costs and training / examination fees) to be paid by trainees are estimated at € 803 million euro per year.

Substantive costs periodic training

- Substantive costs per year associated with periodic training are estimated at around € 747 million, of which € 582 million for enterprises (78%) and € 163 million (22%) for drivers.

Administrative costs

- Recurring administrative costs for drivers are estimated at € 34 million per year, of which € 4 million related to initial training and € 30 million to periodic training.
- Administrative costs for enterprises are estimated at € 200 million per year.

5.2.2 Implementation Costs (IC) for public administrations

The Implementation Costs for public administrations of the Member States are based on the following actions and consequent resources spent on this by public administrations:

Certification of training centres and quality control

We calculate the costs of certification and quality control of training centres at a broad range of € 4 to € 11 million per year. In the summary table we use the average of € 7 million.

Training costs for periodic training

In Denmark and Luxembourg, the government bears part of the training fees, respectively 28% and 33%. This amounts to a total of € 1.4 million.

Enforcement actions.

Control and enforcement bodies indicate that no specific actions are taken to check driver licenses and certificates. Since driver licenses and certificates are checked during other control and enforcement actions, such as control and enforcement of overloading, social legislation, etc. the Consultant assumes no direct attributable costs for enforcement.

5.2.3 Regulatory costs and SMEs

Although there are differences across the European countries, the percentage of transport companies that have fewer than ten employees generally ranges between 65% and 95%¹⁴⁴. As an example, in the Netherlands out of the total of almost 12,000 companies active in road freight transport for hire and reward only around 100 firms (0.8%) have more than 100 vehicles¹⁴⁵. In Germany out of the total of almost 50,000 companies active in road goods transport for hire and reward only 717 companies (1.4) have more than 51 vehicles¹⁴⁶. In short, given the definition of SMEs (more than 250 staff), the Consultant estimates that the number of companies with more than 250 staff is very small.

It can be concluded that the results of the calculations in this chapter cover the SME companies in the sector. The costs of the few big companies are in principle the same

¹⁴⁴ Eurofound 2004

¹⁴⁵ Transport in Cijfers (2013)

¹⁴⁶ Verkehrswirtschaftliche Zahlen (2012/2013).

as for smaller companies, though bigger companies might be able to organise periodic training in a more efficient way than smaller firms.

5.2.4 Summary of costs calculation

The following table shows a summary of the results of the calculations.

Table 19 Summary regulatory costs for enterprises, drivers, trainees and governments in million € per year

| | Enterprises | Drivers | Trainees ¹⁴⁷ | Governments | Total |
|---------------------------|-------------|---------|-------------------------|---------------------|-------|
| Substantive Costs (SC) | 582 | 163 | 803 | n.a. ¹⁴⁸ | 1,548 |
| Administrative Costs (AC) | 200 | 30 | 4 | n.a. | 234 |
| Implementation costs | n.a. | n.a. | n.a. | 9 | 9 |
| Total | 782 | 193 | 807 | 9 | 1,791 |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations

The Consultant concludes that the cost increase related to the Directive is in total € 1,791 million per year.

With regard to the proportionality of costs borne by the different stakeholders, it can be concluded that almost half of the costs are borne by enterprises. Public administrations recover most of their costs through fees charged to enterprises and drivers. Costs for trainees (45%) seems particularly high for initial qualification and testing which may present a barrier to entry to the profession, given that these costs are borne by trainees

The Consultant concludes that the implementation costs are only a fraction of the estimated total costs related to the Directive, and concludes that it is not efficient to spend more resources on further detailing the calculation of implementation costs.

5.3 Impact on level playing field for enterprises and drivers

5.3.1 Introduction

One of the objective of the Directive is to ensure equal conditions of competition in the road transport market. The Consultant identified topics related to the implementation of the Directive in the Member states that influence the conditions of competition. These topics and their influence will be analysed in this paragraph. The topics are:

- Differences in deadlines for periodic training
- Differences in implementation of exemptions
- Differences in systems (training and test / test-only)
- Difference in costs of training
- Differences in funding schemes
- Differences in content of training programmes and training tools, including the use of e-learning and driving simulators, mandatory driving during periodic training
- Minimum age

5.3.2 Public consultation

Before presenting the results of the calculations, it is useful to look at the results of the Public Consultation during which stakeholders were asked to express their opinion

¹⁴⁷ Administrative costs for trainees are taken into account in the calculation of administrative costs for all drivers

¹⁴⁸ The contribution of governments (DK and LU) to training fees is included in the amount for governments for implementation costs.



on the impact of the Directive on level playing field. The Public Consultation shows that 49% of the respondents opined that the Directive has not contributed to the creation of a level playing field for drivers and undertakings across the EU. 35% of the total responses provided a positive answer, albeit according the Directive only a marginal contributory role. Only 9% of the respondents considered this role to be significant. 7% did not answer this question at all.

5.3.3 Global cost calculation

As an introduction to the analysis of the impact of the Directive on level playing field, here the Consultant first presents a global calculation of the effects on costs of the Directive with the aim to give a first indication of the magnitude of the impact on level playing field. As an example, a calculation of compliance costs in relation to turnover of enterprises is presented.

Total costs of periodic training for enterprises as % of total turnover

- Total substantive costs for enterprises associated with periodic training are: € 582 million per year (see annex 3)
- Total administrative costs for enterprises associated with periodic training are: € 200 million per year (see annex 3)
- Total compliance costs for enterprises are € 782 million per year.
- Total number of drivers per year, excluding exemptions, is 3.602.583 (see annex 3).
- Total compliance costs for enterprises per driver per year are € 217.
- Total turnover for an average vehicle active in international goods transport ranges between € 130,000 and € 190,000¹⁴⁹. Share of compliance costs in total turnover ranges between 0.17% and 0.11%.

This first global calculation shows that the effect of the Directive on costs for vehicles active in international goods transport is marginal (€ 217 per driver per year). As a conclusion, the Consultant estimates that the effects of the Directive on level playing field for enterprises is relatively small.

5.3.4 Differences in transposition and implementation

The following factors influenced level playing field:

Differences in deadlines for periodic training

As shown in chapter 4, deadlines for periodic training show a broad range. As an example, truck drivers in France and Cyprus had to finish their 35 hour periodic training already in 2012, while for instance Belgium and Portuguese drivers have till September 2016. This effect will disappear after 2016.

Differences in implementation of exemptions

As presented in chapter 4, seven Member States indicated they did not fully comply with the exemptions defined in article 2 of the Directive. Furthermore, the member States that implemented the exemptions fully compliant with article 2 differed in their interpretation of exempted categories. This is also underlined by the differences in the percentages of drivers exempt between Member States.

Unlevel playing field occurs when the drivers of certain companies in one country are exempt, while the drivers of similar companies in other countries are not exempt. Such a situation could disturb competition, especially in border regions if these companies directly compete.

¹⁴⁹ Panteia (2012)

Differences in systems (training and test / test-only) for initial qualification

As presented in chapter 4, eleven Member States chose the test-only option, one country both options, and the rest opted for training and testing. The Consultant estimates the difference in systems influence level playing field, but only marginally because also in the test-only option students need some form of training or preparatory action.

5.3.5 Differences in costs of training and funding schemes

The following table shows the compliance costs for periodic training (see for details annex 3) per driver as born by enterprises and drivers.

Table 20 Compliance costs carried by enterprises and drivers, per driver

| | Firms | | Drivers | | | Firms | | Drivers | |
|----|---------------------------|---|---------------------------|---|----|---------------------------|---|---------------------------|---|
| | Costs per year per driver | Costs per year in € per driver (PPP-2012) | Costs per year per driver | Costs per year in € per driver (PPP-2012) | | Costs per year per driver | Costs per year in € per driver (PPP-2012) | Costs per year per driver | Costs per year in € per driver (PPP-2012) |
| AT | 62 | 59 | 118 | 111 | IT | 354 | 345 | 45 | 44 |
| BE | 426 | 392 | 9 | 8 | LT | 11 | 18 | 59 | 92 |
| BG | 43 | 90 | 47 | 98 | LU | 472 | 386 | 10 | 8 |
| CY | 115 | 131 | 29 | 33 | LV | 40 | 56 | 19 | 27 |
| CZ | 226 | 312 | 14 | 19 | MT | 93 | 120 | 30 | 39 |
| DE | 196 | 194 | 117 | 115 | NL | 455 | 423 | 8 | 7 |
| DK | 338 | 241 | 24 | 17 | PL | 53 | 93 | 68 | 121 |
| EE | 17 | 22 | 54 | 70 | PT | 46 | 54 | 61 | 71 |
| ES | 246 | 259 | 19 | 20 | RO | 46 | 84 | 38 | 68 |
| FI | 457 | 376 | 9 | 7 | SE | 421 | 328 | 9 | 7 |
| FR | 399 | 369 | 6 | 6 | SI | 59 | 71 | 75 | 90 |
| GR | 38 | 41 | 53 | 58 | SK | 47 | 66 | 51 | 72 |
| HU | 49 | 81 | 52 | 86 | UK | 202 | 173 | 79 | 68 |
| IE | 239 | 204 | 64 | 55 | | | | | |

Source: Consortium calculations

The table shows that compliance costs per driver borne by enterprises, range from € 11 to € 472. Expressed in PPP, differences are smaller, but still considerable. The table shows that compliance costs per driver borne by drivers, range from € 6 to € 118. Again, expressed in PPP differences are smaller, but still considerable. Differences in funding schemes play an important role in these differences, negatively influencing level playing field for enterprises.

5.3.6 Differences in content of training programmes / training tools

Differences in content of training programmes and training tools, including the use of e-learning and driving simulators have an influence on level playing field.

Factors related to the different implementation of the Directive that influence the costs of training and training fees are:

- The possibility to use e-learning could reduce costs with 50%¹⁵⁰ for modules where e-learning is allowed.
- The possibility to use driving simulators, though this depends on the type of simulator and the costs associated with its use.

¹⁵⁰ Interview Deutsche Post DHL, Brussels, Belgium



- The flexibility for enterprises to choose from different training courses. For instance, in the Netherlands companies can choose from a large variety of training courses, while in Germany the regulations restrict companies in their choice.
- Enterprises in countries that allow in-company training have the possibility to focus their training courses, and save money in the execution.

5.3.7 *Minimum age*

As shown in chapter 4, within the EU there are still differences in minimum age for drivers. This has an impact on the level playing field, because companies in countries which allow 18 year old drivers could have an advantage over companies that need to hire drivers from 21 years old. The Consultant concludes that wage differences will be small, certainly when productivity differences are taken into account. Differences in minimum age have thus a limited impact on level playing field related to costs.

5.3.8 *Conclusions*

The Directive intended to create a level playing field, though our analysis of the situation before the Directive has shown that there were only limited problems with the level playing field in road transport. The intention of the Directive to create a level playing field by introducing mandatory initial and periodic training for drivers in each EU country has only partly achieved this due to the fact that the Directive is not prescriptive in terms of training and testing provisions, and as a consequence resulted in cost differences for enterprises and drivers. However, our global calculation show that the effect of the Directive on costs is marginal, and is estimated to be around 0.1% to 0,2% of total costs for enterprises.

5.4 **Conclusions**

Conclusions on economic impact are:

- The cost increase related to the Directive is estimated at € 1,791 million per year.
- With regard to the proportionality of costs borne by the different stakeholders, it can be concluded that almost half of the costs are borne by enterprises (44%). Public administrations recover most of their costs through fees charged to enterprises and drivers. Costs for trainees (45%) seems particularly high for initial training and testing which may present a barrier to entry to the profession.
- The implementation costs for public administrations are only a fraction of the estimated total costs related to the Directive.
- On the basis of a number of global calculations, the Consultant estimates that the effect of the Directive on total costs of road transport companies ranges between 0.1% to 0.2%.
- The Consultant concludes that the Directive has only partly achieved a level playing field due to the fact that the Directive is not prescriptive in terms of training and testing provisions, and as a consequence resulted in cost differences for enterprises and drivers.

6 Social Impact

6.1 Introduction

This section will discuss the social impacts that resulted from the enactment of Directive 2003/59/EC. The impacts on road safety will be considered first, followed by the assessment of impacts on professional competence and on the mobility of drivers.

As an introduction below we summarise the main findings in the analysis of the context, as described in chapter 2.

- Prior to the enactment of Directive 2003/59/EC, only very few professional drivers were subjected to training requirements under Regulation 3820/85. It is estimated that only 5% to 10% of professional drivers in EU Member States received a specialized training.
- The international dimension in the road transport sector is significant. International goods road transport with HGVs represents about 33% of total road goods transport in the EU-27. The share of LGVs in international goods transport is smaller, and estimated at less than 5% of the total market. The share of international transport with busses and coaches in total road passenger transport is estimated at 8%, mainly related to coaches. The implication of these findings is that on roads in EU-countries many foreign drivers from other EU-countries are active, and especially in the segments HGV and buses and coaches.
- Due to the economic crisis the development of the goods transport market between 2007 and 2009 was negative. The negative development of the market had its implications on employment. According to IRU figures, a total of 140,000 jobs in EU road freight transport are currently at risk or have already been lost since the end of 2007. As of January 2009 an estimated 16,000 jobs were lost in Spain, and 10,000 jobs have been lost in France and 4,000 in Belgium¹⁵¹. Given these figures, the economic crisis might have influenced the impact of the Directive in terms of increasing the attractiveness of the profession, and the especially the attractiveness of the profession for young students.
- The relatively high involvement in accidents of the vehicle categories HGVs, and busses and coaches in terms of relative risk underlines the relevance of policy initiatives targeted at these categories to reduce the number of accidents.
- Although the economic crisis has led to a large loss of jobs in the sector, a shortage of drivers could become a problem in the near future. Main drivers for such a shortage are the age distribution of the driver population and the low image of the profession. Estimates of the expected shortage of drivers in 2018 range from around 106,000 to 129,000, depending on the scenario for economic growth¹⁵².
- The mismatch between competences offered and required is also mentioned as a cause of driver shortage¹⁵³, but this view is questioned by others¹⁵⁴.
- The Directive aims to contribute to the solution of the shortage problem by enhancement of the profession with the aim to make the profession more attractive. On the basis of stakeholder consultation, the Consultant concludes that mandatory CPC training could enhance the professional competence of drivers, but could also form a barrier for access to the profession.

¹⁵¹ http://www.iru.org/index/en_economic-crisis2009

¹⁵² European Parliament (2009)

¹⁵³ European Parliament (2009)

¹⁵⁴ Dutch employers associations



6.2 Safety impacts

6.2.1 Relative risks of professional vehicles

One of the main questions in relation to Directive 2003/59 is whether or not the Directive has had a positive impact on safety. In order to assess this, the relative risks of the vehicles falling under the scope of the Directive will be analysed with regard to the time of introduction of the transposed national legislation¹⁵⁵.

The relative risk corresponds to the number of fatalities per billion vehicle kilometres. It represents a good indicator because it presents a comparable indicator for road safety between countries that differ in size, enables comparison between vehicle categories with different mileage, and enables an analysis of a time series within a vehicle category.

Four types of vehicle categories/professions can be considered, based on the nature of work, to a large extent as "professional driving": HGVs, busses and coaches, LGVs, and taxis. From these four categories, only drivers of HGVs, busses and coaches are under the scope of Directive 2003/59.

A distinction between these vehicle categories can be useful to gain insight in the possible benefits of Directive 2003/59.

Looking at the evolution in relative risks¹⁵⁶ for HGV and for busses and coaches¹⁵⁷ considering the year of introduction of the national legislations does not provide a clear insight in a possible safety effect as a result of the introduction of the Directive. Member States that have a positive evolution in relative risk have national legislation in place from between 2006 and 2009. Member States with no or a negative evolution in relative risk have national legislation in place since 2008 and 2009. This does not allow for a clear distinction or identification of causal link between time of introduction of legislation and safety improvements. Furthermore, it may be that some of the countries where no positive evolution could be found already had a good qualitative driver training system in place. When looking at the overall evolution in relative risk, compared to the other countries, this seems a likely explanation for the already low relative HGV risk values for France and the low relative bus and coaches risk value for Hungary.

Another way of looking at the possible safety impact of the introduction of Directive 2003/59 is the comparison of evolution in accident rates between vehicle categories that are under the scope of the Directive with those that are not. This is for example the case when comparing HGV with LGV. HGV drivers are directly affected by Directive 2003/59, whereas LGV drivers are not. Furthermore, LGV drivers do not appear to have had changes in other possible relevant training requirements that fall outside of the Directive (i.e. other national or European legislations, insurance requirements, driver license type B requirements, etc.). For HGVs, data is presented in Table 28 and for LGVs in Table 26. For HGVs, we also looked at the relative risks of accidents with fatalities of an occupant (see Table 25). However, for both HGVs and LGVs, no clear conclusions can be drawn (see Table 27).

¹⁵⁵ The year of introduction of the Directive for different Member States can be found in chapter 4.

¹⁵⁶ The period 2008-2010 is considered since this is (1) directly relevant as far as timing is concerned and (2) this is most common period for which information is available to estimate relative risk.

¹⁵⁷ See tables 25,26, 28,29.

Available data thus not seem to find evidence of a link between training and safety in terms of fatalities.

One reason behind this may be that the full effects of the Directive are not yet realised, which seems plausible considering the progressive training programme of existing professional drivers. The Directive was not the sole safety enhancing action that was undertaken in the past decade. Tables 3 and 4 discussed above¹⁵⁸ showed that the application of the Directive's training started merely in 2008/2009, while in most Member States the first periodic trainings were due in 2013/2014. Therefore, given the timing of implementation and the relatively short period that elapsed since the Directive's full application, the practical impact of the Directive may not yet be visible in accident statistics. Statistical data was available only until 2012.

Beside, these data are influenced by numerous other developments in road safety at various levels: legislation, infrastructure, technical advances, etc. and the attribution of effects to one intervention is difficult. It is thus difficult to make an exact estimation of the safety effect that results from the implementation of Directive 2003/59/EC.

6.2.2 Relation between training and road safety

Earlier parts of this report presented the findings of desk research in great detail on the effects of training on safety (see Section 3.2.3. above). From a theoretical perspective, there is evidence that the correct type of driver training may lead to a decline in accident involvement and associated fatalities and/or severe injuries¹⁵⁹. This was also suggested in studies such as ProfDrv and SUPREME¹⁶⁰ but no clear effect range is presented. The figure presented here comes from Elvik & Vaa¹⁶¹ indicating a 20% improvement. This finding is in line with findings from the ADVANCED¹⁶² European project and the literature study included therein. The effects also vary depending on the topics covered by the training. For example, training on hazard perception (or testing for it), may lead to a 3% crash rate reduction¹⁶³. Given the very limited information available in the literature, it is not possible to attribute a determined share in the reduction of accidents to training. Moreover, the existence of a link between training and road safety is also supported by findings for the USA, where an improvement in the conditions to acquire the commercial driver's license (in effect from 01-01-2008 requiring training in 2007) coincided with a decrease in the relative risk for fatalities from accidents where HGV were involved¹⁶⁴.

On the other hand, there are also findings that indicate a limited contributory role of training to improving road safety. The relevant studies were also presented in earlier parts of the report (Section 3.2.3.). Mayhew & Simpson (2002),¹⁶⁵ Christie (2001), Murphy and Leach (2013), as well as the findings of the ADVANCED¹⁶⁶ European project pointed out that there is relatively little support for the hypothesis that formal driver instruction is an effective safety measure.

¹⁵⁸ See section 2.4.1 above.

¹⁵⁹ SWOV (2012) De rijvaardigheidseisen in Midden- en Oost-Europese lidstaten en ongefallen en overtredingen van buitenlandse bestuurders in Nederland. See also, http://www.cieca.eu/template_subsubpage.asp?pag_id=49&spa_id=74&ssp_id=76&lng_iso=EN.

¹⁶⁰ http://ec.europa.eu/transport/roadsafety_library/publications/supreme_f2_thematic_report_driver_education_training_licensing.pdf

¹⁶¹ Rune Elvik & Truls Vaa – The handbook of road safety measures.

¹⁶² CIECA, 'Available Documentation' (2010-2014)

¹⁶³ http://www.swov.nl/rapport/Factsheets/UK/FS_Training_hazard_perception.pdf

¹⁶⁴ US Department of Transportation (2012)

¹⁶⁵ Mayhew & Simpson, 'The safety value of driver education and training Injury Prevention, 8, ii3-ii8' (2002).

¹⁶⁶ CIECA, 'Available Documentation' (2010-2014)



The results of the public consultation seem to be in line with the theory of a link between training and safety: 90% of all respondents agree that education of drivers could make an important contributory role in road safety.¹⁶⁷ However, respondents of the public consultation indicate that the way the Directive is designed and implemented did not contribute much to increased road safety. When asked whether the Directive contributed to increasing safety on European roads, almost half of the stakeholders (49%) indicated that the Directive had an insufficient contributory effect.¹⁶⁸ 29% of the stakeholders considered that the Directive did not have a contributory role at all, while merely 16% believed that it had a significant role in improving road safety. The comments of the stakeholders revealed the reasons for these findings. Some respondents who considered that the Directive had an insufficient impact on road safety, point out it might be too early to accurately assess such effects.¹⁶⁹

When looking at the information provided by the contacted stakeholders for the consortium questionnaire, it also becomes apparent that most Member States include, within the periodic training topics with a focus on identifiable accident causes for accidents where HGV or busses and coaches are involved.

6.2.3 Calculation of benefits in terms of road safety

Potential reductions in accidents can be calculated at different levels: for fatalities, severe injuries and slight injuries. For each of these, a cost can be attributed. This approach was suggested by ETSC, which has calculated average costs of fatalities for the EU.¹⁷⁰ The updated Handbook on External Costs of Transport attribute a value of € 1.87 million per fatality, € 243,100 per severe injury and € 18,700 per slight injury (EU average)¹⁷¹. We can only assume a working relation between the number of fatalities and severe injuries as far as reduction potential is concerned. For this, we refer to the CARE annual statistics report¹⁷², where it would appear this is around 1 (fatality) to 55 (injuries).

Based on the desk research, we assume that the “3% crash rate reduction” reported above and calculated by Mayhew & Simpson, could be a feasible reduction rate as a result of driver training, assuming that hazard perception is an important part in this.

In 2010, 5,730 fatalities were reported in the EU25¹⁷³ from accidents with HGV, busses or coaches. A 3% reduction would mean that 172 fatalities would be avoided. Following the 1 to 55 ratio, a further 9,455 severe injuries may be avoided. In monetary terms, this would result in total costs avoided of around € 2,619 million per year, and € 2,702 million per year when corrected for missing data from Bulgaria and Lithuania.

6.2.4 Conclusions

In light of the foregoing, the following conclusions can be drawn:

- Statistical data may be too limited to show the exact impacts of the Directive on road safety.
- Research shows that training of drivers may have some impact on safety. Literature shows that only training focused on danger recognition has a potential

¹⁶⁷ Panteia, Report on the Public Consultation (March 2014), p. 15.

¹⁶⁸ Ibid., p. 26.

¹⁶⁹ Ibid., p. 28.

¹⁷⁰ <http://www.etsc.eu/documents/costeff.pdf>

¹⁷¹ Ricardo-AEA (2014). Update of the Handbook on External Costs of Transport

¹⁷² http://ec.europa.eu/transport/road_safety/pdf/statistics/dacota/dacota-3.5-asr-2012.pdf

¹⁷³ No data available for Bulgaria and Lithuania.

positive impact on road safety. Nonetheless it is an important contributory element, according to the respondents to the public consultation.

- Stakeholders consider that the Directive's impact on safety is insufficient.
- In monetary terms, the Directive has potential benefits related to reduced costs of accidents of approximately € 2,702 million per year.

6.3 Professional competence

In the present section consideration will be given to the Directive's impacts on the professional competence of drivers. In this context, the discussion will consider the qualification requirements that the Directive introduced, the training's impact on the attractiveness of the profession of driver, as well as the impacts that resulted from the interaction between the qualification system of the Directive and that of the European Qualification Framework for Lifelong Learning (EQF).

6.3.1 Qualification requirements

The primary impact on the professional competence of drivers was a result of the introduction of a training that is additional to the ordinary training requirements needed to obtain a driving licence. Previous sections of this report have already detailed the situation that existed prior to the enactment of the Directive (see 2.1). That section highlighted that before the Directive only 5% to 10% of the total number of professional drivers were trained, while after the starting of the application of the Directive, all professional drivers (except those exempted under Article 2 of the Directive) must undergo a training.

Results of the public consultation showed that 55% of the stakeholders considered that the Directive contributed to the development of the professional competence of drivers, but it did so only marginally. These respondents considered that, although the Directive did contribute to some extent to increasing the drivers' competence, it failed to take into consideration the individual needs that the drivers may have. 25% of the stakeholders considered the contribution to be significant. It was a common observation of these respondents that the training further developed the drivers' technical skills (e.g. safer driving) and general occupational skills (e.g., customer relations). 20% of the respondents saw no contributory role at all. These respondents argued that the Directive's contribution to the professional competence of drivers is undermined by the fact that in many Member States, the periodic training is merely an attendance course, without a validating exam, and drivers are allowed to do the same course on multiple occasions.

It must also be considered whether the requirements of Annex I continue to be relevant for the professional competence of the drivers.

During the past decades knowledge needs changed and increased fundamentally for professional drivers because of changes in work organisation, new technical standards, changing legal regulations, market requirements and work environments as well as a fast internationalization of the transport market.

The results of the public consultation show that, overall, 82% of the respondents believed that the subjects of Annex I are relevant, but they disagreed as to the level of their importance. Accordingly, 133 respondents (34%) indicated that the subjects are very relevant, while close to half of the respondents, that is, 190 respondents (48%) opined that the subjects are only somewhat relevant to the objectives of the Directive. These stakeholders reason that this is due to Annex I's inability to



accommodate changing subject needs of the driver or the industry. A closer analysis of the subjects of Annex I reveals that an update to the subjects could be needed to address technological developments in (at least) the following aspects:¹⁷⁴

- Under Section 1.2 of Annex I: The “specific features of hydraulic vacuum servobrake circuit” are still mentioned but this outdated system is no longer used in trucks and busses. This was also raised by the respondents to the public consultation.¹⁷⁵ The system is replaced by a full pneumatic brake system. This item can be removed.
- Under Section 1.4/1.6 of Annex I: The use of automatic transmissions systems should be added.
- “Selective Catalytic Reduction” and “Euro norms” could be added. The new characteristic of the modern Euro engines led to different behaviour of the drivers.
- The use of new electronic devices such as ESP (Electronic Stability Program), ABS (Anti-lock Braking System) and Traction Control Systems are missing in Annex 1.
- The use of IVMS (In vehicle monitoring systems) could be added as well. This is a common feature in modern trucks and allows to receive and use data from the CAN bus system of the truck/bus to evaluate driving behaviour and to communicate the position and the status of the vehicle to the home base. The data from the IVMS can be used for: fuel monitoring; driving behaviour (acceleration/deceleration behaviour), and defensive driving reports, among others.

6.3.2 Recognition of professional qualification

A problematic aspect related to the training under Directive 2003/59, in particular for young people (and possibly their parents) is the integration of such a qualification into the formal VET system which is not the case for the CPC in most countries.¹⁷⁶ In general Member States seem generally reluctant to assign the CPC to a national qualification framework (NQF) and hence, also to the EQF (see also section 8.4.1.).

The alignment and inter-relation between the EQF and Directive 2003/59/EC will be considered in more detail in subsequent parts of this report (see Section 8.4.1 below). For the purposes of the present section it suffices to note that Directive 2003/59/EC sets up a qualification system that is different than the EQF mechanism in the sense that in that the former only knowledge objectives are mentioned in Annex I of the Directive, while in the latter outcomes relating to knowledge, competences and skills are also included. This results in difficulties in assigning the CPC to a level of EQF. Member States also seems reluctant to assign a national qualification framework level to the CPC. Only the UK, the Netherlands, and Germany seemed to have integrated these, albeit in different ways (in the UK, it is equated with a level 3 EQF, in the Netherlands with a level 2 EQF, while in Germany with a level 4 EQF).¹⁷⁷

This results in a lower attractiveness to the profession due to a lack of recognition of the professional competence acquired through an initial training which is generally perceived as burdensome.

6.3.3 Attractiveness of the profession

One of the objectives of the Directive is to define standards of professional competence in the sector and to raise the consideration of the profession. Or, in other

¹⁷⁴ Recommendations were obtained through consultations with road safety experts.

¹⁷⁵ Panteia, Report on the Public Consultation (March 2014), p. 67.

¹⁷⁶ Information obtained through consultation with DEKRA Akademie GmbH.

¹⁷⁷ Gov. of the UK, ‘Driver CPC: National Vocational Training’, available at: <https://www.gov.uk/driver-certificate-of-professional-competence-cpc/national-vocational-training-nvt-concessions> (last accessed 9 July 2014). For the other findings see Claudia Ball, DEKRA Akademie GmbH, ‘Professional driver training in Europe’ (2012), p. 10.

words, one of the objectives is to increase the attractiveness of the profession through the introduction of initial qualification and periodic training. Increased attractiveness is needed because of the projected shortage of drivers as discussed earlier¹⁷⁸.

Chapter 2 describes that one of the main factors influencing the supply of drivers is attractiveness of the profession, and the current working conditions in the sector are not seen as favourable, and that the sector has a low image. Possible factors that hinder the attractiveness of the profession are, among others, the low levels of remuneration, unfavourable working conditions (such as long distance travelling, feelings of loneliness over long routes), increased stress (for instance, just-in-time management, client pressure), lack of accessibility to sanitary and medical facilities, risk of violence and assault, etc. (Section 2.5.3).

Because of the impact of the economic crisis which led to a decrease in employment in the sector (see chapter 2), there are no labour market statistics that could support the assessment of the contribution the Directive made in increasing attractiveness of the profession. Therefore we make use of the results of a number of studies and the public consultation.

Results of the ProfDRV¹⁷⁹ project indicate that stakeholders' consider that there is no positive effect on the attractiveness of the profession as a result of the Directive.¹⁸⁰ On the contrary, initial training may represent an additional barrier to the profession (since it entails additional learning, prolonged time away from the labour market and additional costs) that makes it even less attractive especially for career changers.

The STARTS study¹⁸¹ mentions that only 48% of the respondents of a questionnaire on the implementation of the Directive gave answers to questions about the attractiveness of the profession. Among them, those believing that the Directive has not contributed towards improving the profession's image were slightly more numerous than those thinking that it resulted in an improved image of the profession.

60% of the stakeholders responding to the public consultation believed that the image of the profession of driver could be increased through the harmonisation of requirements of training and qualifications standards. (Answers to Q3 of the public consultation – main findings under Section 3.3.3). 55% of the respondents thought that the Directive indeed has contributed to the development of the level of professional competence of drivers, but it did so only marginally. Only 98 respondents (25%) considered the Directive's contribution to be significant, while 78 respondents (20%) saw no contributory role at all.

Having said that, attractiveness to the profession of driving could also be negatively impacted by fact that the CPC training represents a separate training from the driving license training. It is only in Belgium and the Netherlands where the two trainings are combined together under one overall training (which nonetheless maintains the specificity of both the CPC and driving license training). In other Member States the two are kept separate.

During interviews stakeholders indicated that the Directive contributed to the attractiveness of the profession because the Directive sets a lower minimum age than

¹⁷⁸ European Parliament (2009)

¹⁷⁹ ProfDRV, DEKRA (2010)

¹⁸⁰ Claudia Ball, DEKRA Akademie GmbH, 'Professional driver training in Europe' (2012), chapters 2.2 and 3.

¹⁸¹ ETF/IRU (2012)



Directive 2006/126/EC on driving licenses. This avoids for many potential drivers additional three (3) years delay from entering the profession.

6.3.4 Conclusions

- The Directive is expected to have a positive influence on professional competence in general, given the fact that before the Directive only 5% to 10% of the total number of professional drivers were trained, while after the starting of the application of the Directive, all C- and D-licensed drivers (except those expressly exempted under Article 2 of the Directive) must undergo a training.
- This view is supported by the results of the public consultation, that showed that 55% of the stakeholders considered that the Directive contributed to the development of the professional competence of drivers, but it did so only marginally.
- An update of the subjects mentioned in Annex 1 of the Directive is needed to address technological developments.
- There is a lack of integration of driver training into the formal VET systems of Member States, and problems with the recognition of training lowers the attractiveness of the profession.
- There are indications (ProfDRV project results, STARTS study, Public Consultation) that the Directive brought no positive effects on the attractiveness to the profession. On the contrary, it may have added an additional barrier to entering the profession.
- The Directive contributed to the attractiveness of the profession because the Directive sets a lower minimum age than Directive 2006/126/EC.

6.4 Mobility of drivers

As indicated in earlier, there are problems with the recognition of partial periodic training that may affect the mobility of drivers. In the case of partial periodic training, a driver may be hesitant to relocate on the basis of the possibility that his training hours will not be recognised in another EU country. Almost all countries do not accept partial training undergone in another Member State.

In the case of completed periodic training, the free movement of drivers may be affected by the situation that 9 countries do not issue a driver qualification card. Drivers with a driving license issued by another Member State may be hindered to work and follow periodic training in one of these 9 Member States.

The Consultant attempted to collect quantitative evidence of problems in the field of recognition of periodic training. An extra questionnaire was sent to trade unions in the Member States via ETF, and a questionnaire was sent to members of the CPC committee. Also during interviews this issue was raised, and during the stakeholder conference the Consultant asked all participants to give information on this issue. In the end only information from Austria and Germany (Saarland) was received. In Austria, the Economic Chamber estimates that 20% of the drivers working for Austrian companies but with a foreign driving license will have problems with the recognition of their periodic training. In Saarland, Germany, it is estimated that 500 French drivers will have problem with the recognition of their periodic training undergone in Germany.

The results of the Public Consultation show that 48% of the respondents considered that the Directive did not facilitate the mobility of drivers across the EU at all. 34% considered that the Directive did have a role in this process, but this role was only

marginal. 11% of the respondents accorded it a significant role, 7% did leave this question unanswered.

It can be concluded, also given the situation regarding the mobility of drivers in the period before the Directive, that the Directive did not contribute in improving the mobility of drivers.

6.5 Working conditions and health

The impact of the Directive on working conditions and health is mostly indirect. As stated in the previous paragraph, there are no indications that the Directive has contributed to an increase of the attractiveness of the profession. But initial and periodic training in topics as described in Annex 1 of the Directive is expected to result in better knowledge and skills of drivers, and therefore is expected to have an indirect positive influence on working conditions and health. Important topics in Annex 1 in this field are vehicle technology and vehicle operation, road safety, stowage, driving and rest time regulations, use of devices such as the tachograph, risk awareness etc. The relation between working conditions and health and the Directive is further demonstrated by the fact that part 3 of section 1 of Annex 1 is called "Health, road and environmental safety, service, logistics".

The positive relation between training and working conditions and health is furthermore acknowledged by stakeholders during the public consultation. An overwhelming majority of 357 respondents (90%) provided a supporting answer to the question whether or not qualification and education of drivers engaged in the transport of goods or passengers by road have an important contribution to make to road safety?

Another impact of the Directive on working conditions is related to the question who bears the costs of training. As described in chapter 5 there are many different practises in this field, varying from situations in which the employer pays all training fees and training hours are considered working hours to situations in which drivers need to pay all costs related to training and follow training in their free time. It can be concluded that the Directive does not support a further harmonisation of working conditions in the field of (costs of) training, and, as concluded earlier, does not support a level playing field in terms of working conditions and employment conditions.

Other issues related to the Directive that influences working conditions, and are already discussed earlier include the influence on mobility of drivers and the problems with mutual recognition of (partial) periodic training, the differences in implementation of the Directive in the Member States and the differences on the content of training.

6.6 Conclusions

Conclusions on social impact are:

- The findings on safety impacts showed that the Directive's contribution to road safety is difficult to accurately assess in light of the limited statistical data available. Currently available data does not give evidence of a link between training and safety in terms of fatalities. One of the reasons might be that the full effects of the Directive are not yet realised, because deadlines for periodic training have not yet expired a number of countries, and accident data is only available for years in which only a portion of drivers were trained.



- Research shows that training of drivers may have some impact on safety. Literature shows however that only training focused on danger recognition has a potential positive impact on road safety. This leads to the conclusion that, given the wide variety of subjects of Annex 1 of the Directive, the effects on road safety is limited to situations in which this type of road safety training is part of the initial and periodic training.
- The conclusion that the effects of the Directive on road safety is limited is supported by the public consultation. Close to half of the respondents to the public consultation considered that the Directive had insufficient impact on safety.
- In monetary terms, the Directive has potential benefits with focused road safety training. The approximate total costs avoided (as a result of prevented fatalities and serious injuries that would have occurred) is estimated at € 2,702 million per year if danger recognition training would be a (mandatory) part of initial and periodic training.
- The Directive is expected to have a positive influence on professional competence in general, given the fact that before the Directive only 5% to 10% of the total number of professional drivers were trained, while after the starting of the application of the Directive, all C- and D-licensed drivers (except those expressly exempted under Article 2 of the Directive) must undergo a training.
- This view is supported by the results of the public consultation, that showed that 55% of the stakeholders considered that the Directive contributed to the development of the professional competence of drivers, but it did so only marginally.
- An update of the subjects mentioned in Annex 1 of the Directive is needed to address technological developments.
- There is a lack of integration of driver training into the formal VET systems of Member States, and problems with the recognition of training lowers the attractiveness of the profession.
- There are indications (ProfDRV project results, STARTS study, Public Consultation) that the Directive brought no positive effects on the attractiveness to the profession. On the contrary, it may have added an additional barrier to entering the profession.
- In comparison with the mobility of drivers in the period before the Directive, it can be concluded that, due to problems with mutual recognition of training, the Directive did not contribute to the improvement of the mobility of drivers.
- The introduction of initial and periodic training in topics as described in Annex 1 of the Directive is expected to result in better knowledge and skills of drivers, and therefore is expected to have an indirect positive influence on working conditions and health. The relation between working conditions and health and the Directive is demonstrated by the fact that part 3 of section 1 of Annex 1 is called "Health, road and environmental safety, service, logistics".
- The Directive does not support a further harmonisation of working conditions related to the costs of training. In some Member States employers pay all costs related to training, while in other Member States drivers pay all costs of their training. This situation does not support a level playing field in terms of working conditions and employment conditions.

7 Environmental impact

7.1 Introduction

The environmental impact of the Directive mainly comes from fuel savings as a result of eco-driving. Since no statistics are available on fuel use of trucks and busses, the Consultant has therefore estimated the potential fuel efficiency effect due to training of drivers (eco-driving), based on review of literature on the effects of training. The fuel efficiency effect is then translated in fuel savings and reduced CO₂ emissions.

7.2 CO₂ emission reduction

Potential reduction in fuel use after following training on eco-driving

An analysis has been made of the potential effects of professional driver training on energy efficiency and reduction of fuel use on the basis of a number of academic research papers. These papers contain evidence of actual behavioural changes achieved in a number of field experiments and are thus indicative for the level of improvement in eco-driving that could be achieved by training. The figures that demonstrate the average improvement in fuel use after training of professional drivers are shown the following table.

Table 21 Average improvement in fuel use obtained by drivers after taking a training course

| Research paper | Short-term-effects on eco-driving | Long-term-effects on eco-driving | Driver type |
|---|-----------------------------------|----------------------------------|------------------------------|
| Zardakoula et al. (2007) ¹⁸² | 4.35% (2 months) | | Professional bus drivers |
| CIECA survey (2007) ¹⁸³ | 15-25% (average < 1 year) | 4.7-8% (average > 1 year) | Professional/company drivers |
| Beusen et al. (2009) ¹⁸⁴ | | 5.8% (10 months) | Passenger cars |

The CIECA survey paper provides figures which are based on studies focusing on the effects of eco-driving among professional drivers. It is argued that short-term effects are often more pronounced than long-term effects, as drivers often relapse at least partially into original driving habits. This is also an observation made by Beusen et al. in their experimental study on the long-term impact of eco-driving training among passenger cars. Zarkadoula et al. also notice that there is already a significant change in effect between the driving behaviour during training (where a 10% improvement was achieved) and on real road conditions (where 4.35% improvement was obtained during the two months following the training).

To estimate potential savings, the Consultant uses two assumptions:

- The first assumption is about whether or not eco-driving is a mandatory part of initial/periodic training, and whether or not the quality of the training on eco-driving is the same as the quality of training that was used in the above mentioned studies. In the current situation eco-driving is not a mandatory topic of initial and/or periodic training. In the Consortium Questionnaire we asked about the

¹⁸² Zardakoula, Zoidis & Tritopoulou (2007). Training urban bus drivers to promote smart driving, A note on a Greek eco-driving pilot program. Transportation Research Part D, 12, 449-451.

¹⁸³ CIECA internal project on Eco-driving in category B driver training & the driving test (2007). Final Report. CIECA Eco-driving project 2007: Eco-driving in driver training and testing.

¹⁸⁴ Beusen, Broekx, Denys, Beckx, Degraeuwe, Gijssbers, Scheepers, Govaerts, Torfs & Panis (2009). Using on-board logging devices to study the long-term impact of an eco-driving course. Transportation Research Part D, 14, 514-520.



topics of driving license training, initial training and periodic training. Of the 17 countries that responded to this question, 10 countries indicated that eco-driving is already a part of driving license training, while seven countries reported that eco-driving is not a part of driving license training but is a part of initial and periodic training. 15 countries indicated that eco-driving is mandatory during initial training, 16 countries stated that eco-driving is a mandatory topic during periodic training. Because the added value of mandatory eco-driving training in countries where eco-driving is already part of the driving license training is limited, and because the quality of eco-driving might not be of the same as the quality of the training used for studies, it is assumed that eco-driving will be one of the main topics presented in 50% of the trainings given to drivers.

- Secondly, we make use of the long-term effects on eco-driving that were reported. In practice, this means that we expect to see a long-term reduction effect of eco-driving on fuel use between 2.35 and 4%¹⁸⁵.

Table 22 Potential reduction in fuel use, in € per year

| | Nr of vehicles | Km/year ¹⁸⁶ | Total kms | Litres ¹⁸⁷ | Total fuel costs ¹⁸⁸ |
|------------------|----------------|------------------------|-----------------|-----------------------|---------------------------------|
| <i>Goods</i> | | | | | |
| Domestic | 2,012,868 | 80,000 | 161,029,440,000 | 53,139,715,200 | 75,405,255,869 |
| International | 1,036,932 | 130,000 | 134,801,160,000 | 44,484,382,800 | 63,123,339,193 |
| <i>Passenger</i> | | | | | |
| Busses | 559,130 | 40,000 | 22,365,200,000 | 7,380,516,000 | 10,472,952,204 |
| Coaches | 301,070 | 160,000 | 48,171,200,000 | 15,896,496,000 | 22,557,127,824 |
| Total | 3,910,000 | | 366,367,000,000 | 120,901,110,000 | 171,558,675,090 |

| | Savings 2.35% | Savings 4.0% |
|------------------|---------------|---------------|
| <i>Goods</i> | | |
| Domestic | 1,772,023,513 | 3,016,210,235 |
| International | 1,483,398,471 | 2,524,933,568 |
| <i>Passenger</i> | | |
| Busses | 246,114,377 | 418,918,088 |
| Coaches | 530,092,504 | 902,285,113 |
| Total | 4,031,628,865 | 6,862,347,004 |

Reduction in climate change costs

For the reduction in CO₂ emissions, we follow the same reasoning as above since CO₂ emission reductions are directly linked to fuel reduction. This means that, for the present estimation, we use a bracket between 2.35% and 4% and start from the fuel reduction resulting from eco-driving. The updated handbook on external costs of transport gives us an estimated climate change costs of € 0.243 per litre of fuel. This means that we can estimate the climate change costs as a result of eco-driving between € 690 million and € 1,175 million per year.

¹⁸⁵ As we assume eco-driving to be included in 50% of the trainings, we have halved the expected effect of eco-driving, as indicated in the CIECA study.

¹⁸⁶ Panteia (2013)

¹⁸⁷ Based on fuel consumption of 33 litres per 100 kilometres.

¹⁸⁸ Based on an average fuel price of 1,419 per litre.

Summary of benefits

The table below summarises the main benefits as a result of the training, notably through eco-driving.

Table 23 Summarised benefits of training (eco-driving)

| Benefit categories | Benefit estimates (million €/year) |
|------------------------------------|------------------------------------|
| Fuel efficiency improvement | 4,032 – 6,862 |
| CO ₂ emission reduction | 690 – 1,175 |
| Total annual benefits | 4,722 – 8,037 |

7.3 Conclusions

- The introduction of mandatory eco-driving courses for drivers within the context of the Directive on initial and periodic training has a potential fuel reduction effect ranging between 2.35% and 4%.
- Direct cost reductions linked to reduced fuel consumption are estimated to total between € 4,032 million and € 6,862 million per year.
- Cost reduction linked to climate change costs are estimated to total between € 690 million and € 1,175 million per year.



8 Alignment with other EU legislation / EU policy

8.1 Introduction

The purpose of this section is to analyse the relationship between Directive 2003/59/EC and Directive 2006/126/EC on Driving Licences (Recast),¹⁸⁹ as well as other relevant EU legislation and policy instruments that may have a relation with Directive 2003/59/EC. The objective of this section is to identify differences, overlaps or contradictions in the rights and obligations they create for professional drivers.

8.2 Directive 2003/59/EC and Directive 2006/126/EC

8.2.1 *Scope of the two instruments*

Directive 2006/126/EC on driving licences has the objective of improving road safety as well as contribute to the free movement of citizens by harmonizing the requirements on issuing national driving licences and set out rules on their mutual recognition among the Member States.

At the outset, it should be noted that the two instruments serve two different, although to some extent overlapping, purposes. The overlap relates to both instruments' aim to harmonize the minimum training requirements for drivers and thereby contribute to road safety. Regarding the difference, while Directive 2003/59/EC has a narrow scope of application, creating a qualification and training system for a specific category of driver (i.e. professional driver with a C and/or D driving licence), Directive 2006/126/EC applies to all categories of drivers, irrespective of their profession. Thus, Directive 2003/59/EC has the scope of creating a specific training scheme for a specific category of drivers (i.e., professional drivers) in addition to the ordinary driving licence trainings, while Directive 2006/126/EC sets out a minimum training to be applied to all drivers of category C and D irrespective of whether they are professional drivers or not.

An important distinction between the two legal instruments emanates from the intention of the drafters of Directive 2003/59/EC to enact an additional separate set of rules for professional drivers in order to improve road safety, and ensure that professional drivers are "of a standard to have access to and carry out the activity of driving."¹⁹⁰ In other words, Directive 2003/59/EC addresses a series of aspects specific to professional driving that are not included in the framework of Directive 2006/126/EC.

8.2.2 *Minimum age discrepancies*

The most evident discrepancy between the two Directives relates to the minimum age requirements imposed on drivers of category C (and CE) and D (and DE) vehicles.

Article 4 of Directive 2006/126/EC sets out the minimum ages required for the issuing of driving licences. With respects to category C and CE drivers, the minimum age is fixed at 21 years,¹⁹¹ while in the case of category D and DE, this limit is 24 years.¹⁹² In

¹⁸⁹ Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on Driving Licences (Recast), [2006] OJ L 403/18.

¹⁹⁰ *Ibid.*, Preamble paragraph 4.

¹⁹¹ Directive 2006/126/EC, Article 4(4)(g).

¹⁹² *Ibid.*, Article 4(4)(k).



both instances, the relevant provisions stipulate that these age limits are “without prejudice to the provisions for the driving of such vehicles in Directive 2003/59/EC.”¹⁹³

In the context of Directive 2003/59/EC, Article 5(2) envisages that drivers of vehicles intended for the carriage of goods, specifically categories C and CE, may drive from the age of 18 provided they hold a Certificate of Professional Competence (CPC) issued pursuant to an ordinary (i.e., non-accelerated) initial qualification, or from the age of 21 in the case of a CPC issued pursuant to an accelerated initial qualification. Article 5(3) envisages a similar situation for drivers of vehicles intended for the carriage of passengers. Accordingly, drivers of categories D and DE may drive a vehicle from the age of 21, provided they hold a CPC issued according to the ordinary initial qualification, or from the age of 23 in the case of accelerated initial qualification.

In conclusion, the age limits set out in the two Directives do not coincide since the Driving Licence Directive fixes the minimum age for truck drivers at the age of 21 years and for bus drivers at the age of 24 years, while the Driver CPC Directive requires a minimum age of 18 years for truck drivers and 21 years for bus drivers (in case of a CPC obtained through the ordinary, non-accelerated initial qualification).

The question arises at this point whether the provisions of Directive 2003/59/EC create a derogation to the minimum age limits set out in Directive 2006/126/EC, allowing driving licences to be issued to professional drivers at lower ages.

The Directive establishes the minimum age for driving vehicles intended for the carriage of goods or passengers, in accordance with different criteria such as the driving licence category, the type of the training to obtain the initial qualification (accelerated or non-accelerated initial qualification). The provisions of the Directive regarding the minimum age of drivers differ from the related provisions in Directive 2006/126/EC (Driving License Directive). Table 8 gives an overview of the age limits in the Member States for both the Directive and the Driving License Directive

This lack of clarity in the minimum age requirements of the two instruments creates a situation of legal uncertainty in which Member States can adopt different interpretations on the relevant minimum age requirements. Table 8 shows that a majority of the Member States do interpret Directive 2003/59/EC as constituting a derogation to Directive 2006/126/EC with respect to the minimum age for the issuing of a driving licence. Other Member States apply the higher minimum age requirements of Directive 2006/126/EC (Hungary, Italy, Latvia and Slovakia). This distorts the level playing field on the EU level *inter alia* because drivers who enter a profession at an earlier age may acquire more experience (and hence better employment prospects) than his/her comparator of similar age from a Member State where higher minimum age requirements are in place. In turn, this causes the problem of different entry requirements being adopted across the Member States. Furthermore, this may reduce the attractiveness to the profession in Member States where the higher threshold applies since prospective drivers may opt for other professions that allow for earlier employment possibilities. This latter aspect has been confirmed during interviews with stakeholders, who indicated that a minimum age of 18 better fits in career planning than a minimum of 21.

¹⁹³ *Ibid.*

8.2.3 *Validity period and mutual recognition*

Directive 2006/126/EC introduced, as of 19 January 2013, the requirement that driving licences for vehicles of categories C and D (i.e., C, CE, C1, C1E, D, DE, D1, and D1E) must be issued with an administrative validity of five years.¹⁹⁴ This period happens to coincide with the validity time of the CPC qualification under Directive 2003/59/EC.¹⁹⁵ Such a coincidence may result in one of two possible situations: First, while the two entitlements (and hence the two qualifications they govern) have identical validity periods, there is no requirement that these two periods be harmonized. Accordingly, difficulties may arise in case where the code 95 is marked on a driving licence, since the driver will be required to ask for a new driving licence not only when its validity period expires but also when the CPC qualification is renewed. The coinciding validity period of five years offers a possibility of harmonizing these two periods in a manner that will require only one renewal of the driving licence. Indeed, Member States are permitted under Article 8(2) of Directive 2003/59/EC to reduce or extend this period of five years so that the validity of the CPC coincides with the date of expiry of the driving licence. However, no evidence was found of the Member States' efforts to harmonize these two periods.

There is, another important addition in the Driving Licence Directive in comparison to the CPC Directive. Article 15 of the Driving Licence Directive requires Member States must "assist one another in the implementation of this Directive and *shall exchange information on the licences* they have issued, exchanged, replaced, renewed or revoked. They shall use the EU driving licence network for these purposes, once this network is operational." This EU driving licence network was initiated under the Commission's project entitled RESPER (Réseau Permis de Conduire).¹⁹⁶ Directive 2003/59/EC does not envisage a similar network. This results in a problem of efficiency, where competent authorities cannot rely on a centralized system of information exchange, despite the fact that this would be needed (e.g., when confirming the trainings carried out abroad or confirming the validity of the CPC issued abroad, etc.). Efficiency could be enhanced also through making use of the already existing network for driving licences, and broaden it to include the possibility of exchanging information on CPC.

8.2.4 *Overlaps in the content of the two trainings*

Directive 2006/126/EC requires that candidates willing to obtain their driving licence must successfully pass a theoretical test and a practical test of skills and behaviour. The content of the training required by Directive 2006/126/EC for drivers seeking to obtain a category C and/or D driving licence is different from the content of the training required for the CPC under Directive 2003/59/EC. Nonetheless, there are overlaps in the content of the training of the two instruments.

Table 42 provides with a comparative description of the content required under these two instruments.

The most significant overlaps relate to the following aspects:

¹⁹⁴ Article 7(2)(b) of Directive 2006/126/EC.

¹⁹⁵ Article 7(2) and (3) of Directive 2003/59/EC.

¹⁹⁶ Association of European Vehicle and Driver Registration Authorities, 'Progress on RESPER Network for Exchange of Driving Licence Information'.



1. Driver attitude:

Both instruments require testing of the driver's physical and mental ability, especially with respect to their understanding of the effects of alcohol, drugs or other substances, fatigue and stress on their driving ability.¹⁹⁷

Section 2.1.9. of Annex II of Directive 2006/126/EC requires the testing of drivers also on the topic of *moderate* fuel consumption in an effort to reduce the vehicles' polluting effects on the environment. Similarly, the optimisation of fuel consumption is also a set objective in Section 1.3. of Annex I of Directive 2003/59/EC. While there is an overlap in the topics covered, the motivation behind the inclusion of these topics may be slightly different: under Directive 2006/126 the *rationale* is to reduce environmental damage while under Directive 2003/59/EC the underlying reasons go further and include also the fostering of positive impact on road transport (which could include, *inter alia*, reduced fuel costs for the operator).¹⁹⁸ Thus, the inclusion of fuel consumption as a subject under both Directives may better be viewed as complementary rather than merely overlapping.

Furthermore, the drivers' behaviour and responsibility towards the employer's clients is also an overlapping aspect under both instruments.¹⁹⁹

2. General regulatory knowledge

Candidates under both Directives must show a level of general knowledge on certain legal rights and obligations. This required knowledge overlaps in the following areas:

- a general knowledge of the driving hours and rest periods as envisaged under Regulation 3820/85 (as repealed by Regulation 561/2006) and Regulation 3821/85;²⁰⁰
- knowledge of the rules governing the carriage of good and passengers;²⁰¹

3. Safety

Further overlaps exist also in the area of safety, where both Directives impose similar testing requirements on certain safety-related aspects. These include the testing of the driver's ability to:

- assess and respond to emergency situations;²⁰²
- safely load and unload the vehicles (in case of truck drivers);²⁰³ and
- ensure passenger comfort and safety (in case of bus drivers).²⁰⁴

Training objectives

Annex II of Directive 2006/126/EC only mentions a list of subjects that should be part of the exam. No objectives and criteria are defined for any of the items. Annex II does not provide specific objectives and criteria that the training must meet, leaving these aspects at the discretion of the competent authorities of the Member States. On the other hand, Annex I of Directive 2003/59/EC tries to define learning outcomes. In comparison to the requirements set out in the Driving Licence Directive, Annex I of Directive 2003/59/EC sets out more specific training objectives and defines training criteria in more comprehensive terms than the Driving Licence Directive. As an

¹⁹⁷ Section 2.1.2. of Annex II to Directive 2006/126/EC and Subsection 3.4. of Annex I to Directive 2003/59/EC.

¹⁹⁸ See Preamble para. 10.

¹⁹⁹ *Ibid.*, Section 4.2.8.

²⁰⁰ *Ibid.*, Section 4.1.1.

²⁰¹ Sections 4.1.2. and 4.1.3. of Annex II to Directive 2006/126/EC and Subsections 2.2. and 2.3. of Annex I to Directive 2003/59/EC.

²⁰² Section 4.1.4. of Annex II to Directive 2006/126/EC and Subsection 3.5. of Annex I to Directive 2003/59/EC.

²⁰³ *Ibid.*, Section 4.1.9.

²⁰⁴ Section 4.1.10. of Annex II to Directive 2006/126/EC and Subsections 1.5. and 1.6. of Annex I to Directive 2003/59/EC.

example, Annex II of Directive 2006/126/EC requires that drivers know “how to behave in the event of an accident”.²⁰⁵ This rather vague formulation is contrasted with the requirements of Annex I to Directive 2003/59/EC, which sets out, among others, the objective of making drivers aware of the risks of road accidents²⁰⁶ and the objective of having the ability to assess emergency situations²⁰⁷, requiring specific criteria that need to be met for these objective to be fulfilled (e.g., ability to give first aid, ability to summon assistance, etc.).

8.3 Directive 2003/59/EC and EU transport legislation

The purpose of the present section is to look the degree to which Directive 2003/59/EC fits into the current EU transport legislation.

8.3.1 Regulation 561/2006

Regulation 561/2006 on the harmonisation of certain social legislation relating to road transport²⁰⁸ governs the driving times, breaks and rest periods for drivers engaged in the carriage of goods and passengers by road. This Regulation shares at least two objectives with Directive 2003/59/EC, namely, the aim to harmonise the conditions of competition in the road transport sector and improve road safety. Furthermore, the scope of application of Regulation 561/2006 includes also the vehicles falling within the scope of application of Directive 2003/59/EC. More specifically, Article 2(1) of the Regulation stipulates that its provisions apply to the carriage of goods by vehicles exceeding the maximum permissible mass of 3.5 tonnes or which are constructed to carrying more than nine persons including the driver. Article 1 of Directive 2003/59/EC adapted a slightly narrower scope of application, requiring a driving licences of category C1, C1E, C, CE, D1, D1E, D, or DE, but does not involve B-licence vehicles, which due to the trailer or semi-trailer exceed 3.5t. The scope of application of Regulation 561/2006 is thus somewhat broader.

A link between the Directive and Regulation 561/2006 is made through preambular paragraph 30 and Article 28 of the Regulation, which set out that the minimum age requirements in the Regulation which are based on the minimum age requirements of Directive 2003/59/EC as of 2009 when the transposition of the Directive was complete.

It is further relevant to consider whether the provisions of the Regulation are subject of the training under the Directive. Under Section 1 of Annex I, one of the objectives²⁰⁹ of the training is to ensure that drivers are aware of the rules set out in Regulation 561/2006 (which repealed Regulation 3820/85 referenced in Annex I), including awareness about the maximum working periods specific to the transport industry and (improper) use of tachographs.

While professional drivers holding C and D licences fall under the scope of both instruments, the range of exemptions differ substantially between the two instruments. In order to systematically assess the range of differences, the exemptions included under Article 2 of the Directive are compared to those enshrined in Article 3 of the Regulation.

²⁰⁵ Section 4.1.4. of Annex II of Directive 2006/126/EC.

²⁰⁶ Subsection 3.1. of Annex I to Directive 2003/59/EC.

²⁰⁷ Ibid., Subsection 3.5.

²⁰⁸ OJ L 102/3 (11.04.2006).

²⁰⁹ Objective 2.1. of Annex I, Section 1 of Directive 2003/59/EC.



Article 2(a) of Directive 2003/59/EC vs. Article 3(b) of Regulation 561/2006:

- While the Directive exempts drivers of vehicles with a maximum authorised speed not exceeding 45km/h, the Regulation exempts vehicles with a speed not exceeding 40 km/h.

Article 2(b) of Directive 2003/59/EC vs. Article 3(c) of Regulation 561/2006:

- Drivers of vehicles "used by, or under the control of" armed forces, civil defence, fire services and similar forces guarding public order are exempt under the Directive. The Regulation provides a broader range of exemptions under Article 3(c) for these types of vehicles, exempting not only vehicles owned by these services but also vehicles which are "hired without a driver". Furthermore, under the Regulation, the exemption will only apply when the carriage "is undertaken as a consequence of the tasks assigned to these services." There is no similar limitation under the Directive.

Article 2(c) of Directive 2003/59/EC vs. Article 3(g) of Regulation 561/2006:

- The Directive's exemption relating to drivers of vehicles undergoing road tests, repair or maintenance is identical to the exemption of Article 3(g) of the Regulation.

Article 2(d) of Directive 2003/59/EC vs. Article 3(d) of Regulation 561/2006:

- Both instruments exempt vehicles used in states of emergency or assigned to rescue missions. Article 3(d) of the Regulation only makes a minor addition, including under this exemption also vehicles used in non-commercial transport of humanitarian aid. There is no similar element under the provisions of the Directive.

Article 2(e) of Directive 2003/59/EC vs. Article 13(1)(g) of Regulation 561/2006:

- Under this exemption, vehicles used in the course of driving lessons in pursuit of the CPC will be exempt. Article 13(1)(g) of Regulation 561/2006 also provides for the exemption of vehicles used for driving instruction and examination from the scope of the Regulation under the circumstances stipulated in Article 13.

Article 2(f) of Directive 2003/59/EC vs. Article 13(1)(i) of Regulation 561/2006:

- Drivers of vehicles used for non-commercial carriage of passengers or goods will be exempt under the Directive. Article 3(h) of the Regulation, however, provides with a rather different exemption, exempting drivers of vehicles with a maximum permissible mass not exceeding 7,5 tonnes and used for the non-commercial carriage of goods (only). The non-commercial carriage of passengers is exempted under Article 13(1)(i) of the Regulation. There are at least two important difference between the two exemptions: (1) the Regulation does not extend the exemption to vehicles for the carriage of passengers; and (2) the Regulation imposes a limitation on the application of the exemption by exempting only vehicles with a mass not exceeding 7,5 tonnes. Considering these two aspects, the exemption provided under Article 3(h) of the Regulation is narrower than the one under Article 2(f) of the Directive. Furthermore, the precise scope of "non-commercial carriage" under both instruments remains undefined. With respect to Article 3(h) of the Regulation, some clarifications were provided by the Court of Justice of the EU, where the Court found that non-commercial carriage "*must be interpreted as covering the*

*carriage of goods by a private individual for his own purposes purely as part of his hobby where that hobby is in part financed by financial contributions from external persons or undertakings and where no payment is made for that carriage per se.*²¹⁰ It remains unclear, however, whether the same interpretation could be applied by analogy also to Article 2(f) of the Directive.

Article 2(g) of Directive 2003/59/EC:

- Under this provision, drivers of vehicles carrying material or equipment to be used by the driver in the course of his/her work are exempted, provided that the driving is not the driver's principal activity. Article 3 of the Regulation contains no similar exemption in concrete terms. Nonetheless, a wider set of exemptions are included under Articles 11-14 (and in particular Article 13) of the Regulation, which can encompass also the exemption envisaged under Article 2(g). Further discussion on this is provided below.

Exemptions provided only under Regulation 561/2006

Article 3 of Regulation 561/2006 contains a broader list of vehicles which are exempt from the provisions of the Regulation. These vehicles are not enlisted under Article 2 of the Directive.

These exemptions apply to:

- Vehicles used for the carriage of passengers on regular services where the route covered by the service in question does not exceed 50 km;
- Specialised vehicles used for medical purposes;
- Specialised breakdown vehicles operating within a 100 km radius of their base; and
- Commercial vehicles, which have a historic status according to the legislation of the Member State in which they are being driven and which are used for the non-commercial carriage of passengers or goods.

Regulation 561/2006 also includes a wide set of exemptions under Articles 11-14. In particular, Article 13 of the Regulation provides that multiple categories of vehicles may be exempted from the scope of the Regulation provided the conditions stipulated in Article 13(1) and (2) are fulfilled. The conditions require that the exemption does not prejudice the objectives of the Regulation, is subject to individual conditions on the territory of the Member State, and is notified to the Commission. The range of vehicles that can be exempted includes, *inter alia*, vehicles owned or hired by public authorities, agricultural vehicles, vehicles used by universal service providers, and used for the non-commercial carriage of passengers.

No similar additional set of exemptions are present under Directive 2003/59/EC. The scope of vehicles exempt from the application of the Directive is exhaustively included under Article 2.

Nonetheless, it must be noted that although many of these exemptions can implicitly be included under Article 2(g) of Directive 2003 (since they relate to carrying of material or equipment to be used by the driver in the course of his/her work), the exemptions under Regulation 561 are formulated in a more precise and exhaustive manner, which is not the case with Article 2(g) of the Directive.

²¹⁰ Case C-317/12, *Lundberg*, Judgment of the Court (Sixth Chamber), 3 October 2013, para. 39.



The question arises whether this difference in the scope of exemption between the Directive and the Regulation create an actual problem. The separate set of exemptions entails that not all drivers who must possess a CPC will also be required to abide by the driving and rest times and vice versa. From a practical point of view, however, the stakeholder consultation did not indicate that this aspect represents a significant problem. The stakeholder conference revealed that a formalistic alignment is not seen as important but coherence between the two instruments would be welcome nonetheless.²¹¹ During the public consultation, stakeholders were asked whether alignment of the exemptions between the two instruments would increase clarity on the scope of the Directive.²¹² The results show that respondents were divided over this issue. Half of those who responded to the question would prefer aligning the scope and exemption of the Directive with those of the Regulation, while the other half would prefer a separate system of exemptions.

8.3.2 Regulation 1072/2009

Regulation 1072/2009 on the common rules for access to the international road haulage market²¹³ consolidates and merges the earlier EU legislative instruments with the aim to better clarify the nature of the common rules for access to the international road haulage market operations within the EU.²¹⁴

This Regulation introduces the Community licence, which is a harmonized document allowing road haulage operators to access the road transport market between Member States.²¹⁵ Furthermore, the Regulation requires that third country nationals (TCN) lawfully employed within the EU must obtain a driver attestation when carrying out international road transport of goods.²¹⁶ In essence, the driver attestation is a harmonized document issued by the competent authorities of the Member State where the operator is established, and is meant to serve as a proof that the TCN driver is lawfully employed or lawfully placed at the disposal of that operator.²¹⁷ This, in turn, facilitates the authorities' efforts to combat unlawful employment of drivers and distortion of competition.

Article 10(3) of the Directive relies on the driver attestation governed under Regulation 1072/2009, by requiring that TCN drivers prove their CPC training by means of the driver's attestation. As an additional option, the Member States may also issue the TCN with a Driver Qualification Card.

Furthermore, unlike the Directive, the Regulation envisages mutual assistance between the competent authorities of the Member States.²¹⁸ Through this mutual assistance, information is being exchanged by the national contact points on the application of this Regulation and those of Regulation 1071/2009.

²¹¹ Report on the Stakeholder Conference, p. 6.

²¹² Report on the Public Consultation for Directive 2003/59/EC, Answers to Question 9 (Q9: Do you think that the alignment of the scope and the exemptions of Directive 2003/59/EC with the ones stipulated in Regulation 561/2006/EC would best increase clarity on the scope of the Directive? Alternatively, do you think that a separate system of exemptions would be the most adequate option?).

²¹³ OJ L 300/72 (14.11.2009).

²¹⁴ Cabotage is defined as the carriage of goods or passengers between two points in the territory of the same State by an entity registered in another.

²¹⁵ See Articles 3 and 4 of Regulation 1072/2009.

²¹⁶ Ibid., Articles 3 and 5.

²¹⁷ Ibid.

²¹⁸ Article 11 of Regulation 1072/2009 and Article 18 of Regulation 1071/2009.

8.3.3 Regulation 1071/2009

Regulation 1071/2009²¹⁹ addresses the common rules on the access to the occupation of road transport operator. One of the four criteria for access to the profession is the demonstration of professional competence.²²⁰ In order to show professional competence, undertakings must show, among others, also knowledge of the rules applicable to the initial qualification and periodic training of drivers stipulated in Directive 2003/59/EC.²²¹ Accordingly, Directive 2003/59/EC plays a contributory role to the development of professional competence of road transport operators, and as a consequence, also to that of the industry as a whole.

8.3.4 Directive 2005/36/EC

The objective of Directive 2005/36/EC on the recognition of professional qualifications is to facilitate the temporary mobility of certain categories of professionals through a simplified and expedited recognition process of the applicant's professional qualifications.²²² As such, it facilitates the access to and pursuit of a profession in an EU country for pursuit of qualifications in another EU country. It applies to all professions, unless there is another EU secondary legislation which sets out specific arrangements directly related to the recognition of professional qualifications established under a separate EU legislation (see Article 2(3) of Directive 2005/36/EC). This means that where drivers fall under the scope of Directive 2003/59/EC, they will not be covered by Directive 2005/36/EC. Accordingly, where Directive 2003/59/EC applies, Directive 2005/36/EC will not.

Even if Directive 2005/36/EC would be applicable, the professional drivers would fall under the so called general system of recognition. The competent authorities in which the given profession is regulated would be bound to assess the qualifications under this system and compensation measures could possibly be imposed, if the professional's qualifications are substantially different from those required in the country in question.

8.3.5 Directive 2008/68/EC

Directive 2008/68/EC on the inland transport of dangerous goods (i.e., the so-called ADR Directive, named after the European Agreement concerning the International Carriage of Dangerous Goods by Road) establishes a harmonized regime for all aspects of the inland transport of dangerous goods (for all modes of transport). As part of the road transport mode, the Directive envisages the training of drivers of vehicles carrying dangerous goods, subjecting them to both a theoretical and a practical training.

This structure resembles the one envisaged for periodic trainings under Directive 2003/59/EC. Directive 2003/59/EC does not explicitly set out any objective with respect to the training of drivers in the carrying of dangerous goods, but under Section 3.5. of Annex I, professional drivers must possess the ability to assess emergency situations, including giving first aid and reacting in the event of fire. These aspects also form part of the ADR training.²²³ Directive 2003/59/EC does not prevent the introduction of ADR topics into the periodic training of professional drivers,

²¹⁹ Regulation 1071/2009 of 21 October 2009 establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator, OJ L 300, 14.11.2009, p. 51.

²²⁰ Article 3(1) of Regulation 1071/2009.

²²¹ Articles 3(1)(d), 8, and Annex I, Section I(C)(5) of Regulation 1071/2009 OJ L 300, 14.11.2009, p. 51.

²²² Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications, OJ L 255, 30.09.2005, p. 22.

²²³ Sub-section 8.2.2.3.8. of the ADR.



provided that the objectives of the Directive are met.²²⁴ Indeed, in practice, ADR courses have been introduced into the periodic training of professional drivers in the Czech Republic, the Netherlands, Finland and the UK.²²⁵ Other Member States do not allow this combination of ADR with the CPC training.²²⁶ This may result in a situation of legal uncertainty since the current Directives are silent on this matter, and Member States have adopted differing practices. Furthermore, this also creates an unlevel playing field for the drivers and undertakings, since they may be in a more advantageous position in Member States where the ADR can be included into the CPC training in comparison to their colleagues carrying out the training in Member States where this combination is not possible.

8.3.6 Regulation 181/2011

Regulation 181/2011 concerning the rights of passengers in bus and coach transport entered into force as of 1 March 2013, and establishes rules that govern the rights of passengers that travel on busses or coaches.²²⁷ Regulation 181/2011 relies on the initial qualification and periodic training scheme of Directive 2003/59/EC as a tool for adequately training drivers to respond to the needs of disabled persons, and for facilitating the mutual recognition of national qualifications of such trainings.²²⁸ The Regulation even allows for the harmonization of the introduction of such trainings and the time-limits of the Directive to enhance coherence between the two instruments.²²⁹

8.4 Directive 2003/59/EC and EU VET policies

The present section examines the European vocational education and training (VET) policies, and the alignment of Directive 2003/59/EC with these.

8.4.1 Recommendations 2008/C/111/01; 2009/C/155/01; 2009/C/155/02

The Directive is related to the Recommendations through the training qualifications that it sets out. Through this qualification, the Directive aims to achieve harmonized training quality across the EU. Making qualification systems transparent and comparable, supporting mobility and promoting a coherent quality standard are also the objectives of the three Recommendations.

A series of EU initiatives have been launched with a view to support comparability and recognition of qualifications (including professional qualifications) across different Member States for the purpose of accessing either further learning or the labour market, thereby promoting mutual trust in, and mobility of vocational education and training. Three such initiatives need mentioning in this context: (1) the European Qualifications Framework (EQF);²³⁰ (2) the European Quality Assurance Reference Framework for Vocational Education and Training (EQAVET);²³¹ and (3) the European Credit system for Vocational Education and Training (ECVET).²³² These three

²²⁴ See also the answers given by the Commission to a similar question: European Parliament, *Answer given by Mr Kallas on behalf of the Commission*, 11 July 2013, available at: <http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2013-006163&language=EN>.

²²⁵ Findings based on the responses of the competent authorities on the Consortium Questionnaire.

²²⁶ Ibid.

²²⁷ Regulation 181/2011 of 16 February 2011 concerning the rights of passengers in bus and coach transport, OJ L 55, 28.02.2011, p. 1.

²²⁸ Recital 12 of the Preamble and Article 16(1) of Regulation 181/2011 of 16 February 2011 concerning the rights of passengers in bus and coach transport, OJ L 55, 28.02.2011, p. 1.

²²⁹ Ibid.

²³⁰ Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for Lifelong Learning, 2008/C111/01 (06.05.2008).

²³¹ Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training, 2009/C155/01 (08.07.2009).

²³² Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training (ECVET), 2009/C155/02 (08.07.2009).

recommendations complement one another in creating a comprehensive system for improving the transparency of vocational education and training systems.

EQF acts as a translation device of national qualifications by relating these to a common European reference framework. This makes the national qualifications more “readable” across the EU.²³³ The EQF is based on eight reference levels that validate so-called ‘learning outcomes’ (which are built on the learner’s knowledge, skills, and competence).

EQAVET complements the EQF by creating a common reference tool assisting Member States and stakeholders to document, develop, monitor, evaluate, and improve the effectiveness of their vocational education and training, and quality management practices.²³⁴ In order to achieve this, EQAVET develops common quality criteria and a set of indicators that assist in the monitoring and evaluating of vocational education and training, thereby promoting a common understanding of quality assurance across the EU.

ECVET is another instrument building transparency and mutual trust in vocational training and education among Member States, complementary to the EQF and EQAVET. ECVET was designed to enable the transfer across the Member States of credits in the form of assessed and documented learning outcomes (not full qualifications).²³⁵ In ECVET ‘learning outcomes’ are defined in the same way as in EQF. ECVET also introduces the concept of ‘units of learning outcomes’ which form the components of qualifications.

Annex I, Section 1 of Directive 2003/59/EC stipulates that the “minimum level of knowledge may not be less than level 2 of the training-level structure provided for in Annex I to Decision 85/368/EEC.” Decision 85/368/EEC was the predecessor of EQF, which was repealed in 2007.²³⁶ The EQF, while replicating the objectives of the 1985 Decision, it adopted a different approach than its predecessor by setting learning goals in describing the qualifications level. Furthermore, the EQF adopts a voluntary and decentralized approach, leaving decision-making at the hands of competent authorities (under the previous system of the 1985 Decision, describing and comparing qualifications was done by experts from the Commission, CEDEFOP and Member States).

The qualification framework of the Directive has a different approach than the EQF since the Directive only establishes knowledge goals but does not address outcomes on skills and competences (which are dealt with separately under the EQF).

As levels of the EQF are defined to act as reference for national qualifications of education and training, they do not necessarily correspond to the levels defined in the Directives. In particular it is also important to highlight the difference in Level 2 under the 1985 Decision and Level 2 of the EQF. Under the 1985 Decision, Level 2 denotes the level reached during compulsory education and vocational training, supplemented by professional training. Under this level, the holder is fully qualified to engage in the specific activity. Level 2 of EQF establishes a lower standard. It requires: (1) basic factual knowledge of the field of work; (2) basic cognitive and practical skills required to use relevant information in order to carry out routine problems; and (3) work under

²³³ European Qualifications Framework (EQF), ‘About EQF’, < http://ec.europa.eu/eqf/about_en.htm >

²³⁴ EQAVET, ‘Overview’, < <http://www.eqavet.eu/gns/policy-context/european-quality-assurance-reference-framework/framework-overview.aspx> >

²³⁵ For more information cf. www.ecvet-team.eu.

²³⁶ COM(2007) 680 final.



supervision with some autonomy. Thus, the 1985 Level 2 appears to denote a more autonomous, compulsory education based, and activity targeted qualification, while the EQF Level 2 denotes a more elementary qualification, where the holder has “basic” understanding and skills about the activity.

The CPC is equated with an EQF level only in a few Member States, namely in Germany in the Netherlands and in the UK.²³⁷ In Germany, the apprenticeship scheme “Berufskraftfahrer” is placed on level 4 of the German national qualification framework, which is equated with level 4 of the EQF.²³⁸ In the Netherlands, the CPC qualification is assigned under level 2 of the national framework, which corresponds to level 2 of the EQF²³⁹. In the UK, the Driver CPC is equated with a Level 2 of the National Vocational Qualification,²⁴⁰ which in turn, is determined by the competent British authorities as matching Level 3 of the EQF.

Thus, these findings point to the following problem with the EQF: the CPC training is not classified in most Member States under their national qualification systems. Even in the few Member States where it is, different EQF levels are denoted (e.g., level 2 in the Netherlands and level 4 in Germany). Furthermore, this problem is rooted in the fact that Member States’ authorities have discretion in assigning an EQF level to their national qualification framework (as well as to assign the CPC to a national qualification level).

It must be noted that the above three Recommendations create merely voluntary mechanisms which Member States are not obliged to adopt but nevertheless are committed to implement. On the contrary, the mechanism of Directive 2003/59/EC creates binding training and qualification schemes that must be implemented into the national legislation of the Member States.

Furthermore, the above discussed issues regarding non-alignment with the EQF may not result in a significant problem since the Directive’s mutual recognition system ensures that full qualifications obtained in one Member State, irrespective of its classification under national qualification systems, will be recognized in another Member State. Non-alignment with the EQF could, however, result in problems for quality assurance and level playing field since the driver training is equated with different EQF levels in different Member States. This entails that training in Member States where this is equated with a higher EQF level would be regarded as representing a higher quality education, while the same training in other Member States could be regarded as lower qualification due to the lower EQF level attached to it. In turn, this could hinder the level playing field among drivers since those with perceived higher quality training could have better employment prospects.

In conclusion the Annex I of Directive 2003/59/EC is not structured in learning outcomes and, therefore, it is not in line with the set-up of the EQF. Furthermore, in its current form, Directive 2003/59/EC makes reference to the (now repealed) Level 2 of Decision 85/368/EEC. After the adoption of the EQF, which adopted a voluntary and

²³⁷ Claudia Ball, DEKRA Akademie GmbH, ‘Professional driver training in Europe’ (2012), p. 10. This report also mentions Spain as having placed the CPC in its national qualification framework but Spain has not assimilated its national framework with the EQF (see website EQF), and as a result it will not be considered here

²³⁸ Ibid.

²³⁹ Ibid.

²⁴⁰ Government of the UK, ‘Driver CPC: National Vocational Training’, available at: <https://www.gov.uk/driver-certificate-of-professional-competence-cpc/national-vocational-training-nvt-concessions> (last accessed 02 July 2014). See also, Truck and Driver Trade Publication, ‘Qualified drivers are in demand’, (April 2009), available at: <http://connection.ebscohost.com/c/articles/37200155/qualified-drivers-are-demand> (last accessed 02 July 2014).

MS authority-centred system, the Level 2 reference in Directive 2003/59/EC has lost its significance. That is because Level 2 of the 1985 Decision does not correspond to Level 2 of the EQF. This creates uncertainty and may result in confusion among Member States, which is evidenced by the practice of the few Member States that decided to assimilate the CPC to a qualification level. On a broader perspective, this can contribute to the reduction of the attractiveness of the profession, as discussed in earlier parts of this report (see section 6.4. above) since prospective young drivers (and often their parents) may attach a higher consideration to the training when this is assimilated to a recognized EQF or national qualification framework. From a practical point of view, the non-alignment is not expected to present a significant problem due to the Directive's own system of validation which requires other Member States to recognize validated trainings irrespective of the national qualification frameworks. Nonetheless, problems could be seen as regards quality assurance and level playing field, since the same training could be equated with different levels of EQF in different Member States.

8.4.2 Commission Communication: Towards a European road safety area: policy orientations on road safety 2011-2020

The European Commission, in its Communication of 2010 entitled *Towards a European Road Safety Area: Policy Orientations on Road Safety 2011-2020*,²⁴¹ set a target of halving the overall number of road deaths in the EU by 2020 (compared to 2010) in order to achieve the objective of creating a common road safety area. This ambitious target was considered as key to improving the European transport system.²⁴²

The Communication sets out also strategic objectives, the first one being to improve the education and training of road users, especially aiming at improving the quality of the licensing and training system, while focusing on young novice drivers. Furthermore, the Commission reiterated the importance of post-licence training, and proposed to view training as a lifelong learning process.

8.4.3 EU White Paper Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport

The European Commission, through its White Paper entitled *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*, emphasized the need to improve road safety, especially by reducing losses of lives.²⁴³ This objective should be achieved through programmes that focus on the education of road users, making better use of technology, more efficient enforcement, and particular attention being accorded to vulnerable road users.²⁴⁴ Furthermore, the White Paper sets the objective to achieve greater convergence across the Member States in the transposition and enforcement of social and safety legislation.²⁴⁵

8.4.4 EUROPE 2020 strategy for smart, sustainable and inclusive growth

Through its Communication *EUROPE 2020 – A strategy for smart, sustainable and inclusive growth*, the Commission reiterated the importance for Europe of social cohesion, a greener economy, education, and innovation.²⁴⁶ These objectives fit well into the road transport policy, and translate into aims that ensure sustainable road mobility and make full use of technological innovations.

²⁴¹ COM(2010) 389 final.

²⁴² European Commission, *Consultation on Directive 2003/59/EC on the initial qualification and periodic training of drivers of certain road vehicles for the carriage of goods or passengers*, (2013), p. 2, available at: <http://ec.europa.eu/transport/media/consultations/doc/2013-professional-drivers-training/background.pdf>.

²⁴³ COM(2011) 144 final, para. 40.

²⁴⁴ Ibid.

²⁴⁵ Ibid., p. 19.

²⁴⁶ COM(2010) 2020.



8.4.5 Directive 2003/59/EC's alignment with these policies

Directive 2003/59/EC represents the first step in achieving the goals set forth in the above discussed policy instruments. In this sense, the Directive aims to contribute to improving road safety through harmonizing the drivers' training, and thereby reducing the risk of human error as a cause of accidents. It further contributes to the lifelong learning objective, through ensuring the periodic update of the drivers' skills and competences. The Directive appears to be weak especially in standardizing the quality of the training across the Member States. Furthermore, the Directive accords little attention to the training of professional drivers on subjects such as protecting vulnerable road users, an objective specifically highlighted in the 2011 Commission White Paper.

8.5 Conclusions

The following main findings can be drawn:

- In considering the alignment between Directive 2003/59/EC and Directive 2006/126/EC they pursue slightly differing objectives (while sharing the common objective of improving road safety). As a result, there are discrepancies and overlaps between the obligations they create. One major discrepancy relates to minimum ages, where the two instruments provide for different age requirements. As a result, a degree of uncertainty exists as to which set of requirements apply, which is also visible in the practice of the Member States. Furthermore, there are also overlaps between the two instruments in relation to the content of the training, in particular on subjects relating to driver attitude, general regulatory knowledge, and safety.
- Directive 2003/59/EC also aligns, partially, with the other EU legislative instruments in the transport sector. Nonetheless, the Directive's scope of exemption is only partially aligned with those of other relevant EU instruments for professional drivers, most relevantly Regulation 561/2006. Despite this, results of the stakeholder consultation show that lack of complete alignment is not perceived as a significant problem. Alignments in other domains are also visible: for instance, the minimum age requirements stipulated under Regulation 561/2006 are based on the requirements set out in Directive 2003/59/EC.
- There is also a level of uncertainty regarding the fitness of the ADR training courses required under Directive 2008/68/EC into the periodic training under Directive 2003/59/EC. This uncertainty has also visible consequences among the Member States since some allow a combination while others prohibit it. In turn, this may result in undermining the level playing field, since drivers that can combine ADR and CPC training may be in a more advantageous position than their colleagues who completed their training in a Member State where this is not possible.
- In its current form, Directive 2003/59/EC makes reference to the (now repealed) Level 2 of Decision 85/368/EEC. After the adoption of the EQF, which adopted a voluntary and MS authority-centred system, the Level 2 reference in Directive 2003/59/EC has lost its significance. That is because Level 2 of the 1985 Decision does not correspond to Level 2 of the EQF. Moreover, the structure of the subjects in Annex I are not in line with the 'learning outcome' structure of EQF which distinguishes between knowledge, skills and competence. This is not the case with Annex I, which only includes learning objectives. Nonetheless, Member States are left with the discretion to match national qualification with EQF levels, which may result in the CPC falling under different EQF levels when compared to national qualification levels. Nonetheless, the problem is not expected to have a great impact on drivers since the Directive's mutual recognition system circumvents this

issue by allowing the recognition of trainings across the EU. Nonetheless, problems could be seen as regards quality assurance and level playing field, since the same training could be equated with different levels of EQF in different Member States.



9 EU added value

9.1 Introduction

This section examines whether there is added value in adopting measures on training of professional drivers on EU level compared to what could be achieved by the Member States alone. The EU added value in relation to training of drivers is defined in terms of the internal market by enabling labour mobility and fostering harmonisation and by creating a level playing field. These components are necessary considering the international character of road transport.

9.2 International character of road transport

It was concluded in chapter 2 above that the road transport market has a strong international character, though differing per market segment. As described in this chapter 2, EU initiatives in the field of training of drivers could be justified if, due to a large share of international transport, in EU countries many drivers from other EU-countries are active on national roads. In such a situation, a country may be hesitant to take national initiatives in the field of mandatory training for its drivers. For example, Germany is an important transit country within the EU, its bilateral transport relations are dominated by foreign hauliers, and Germany is the country with the largest share of cabotage. As a consequence, on German roads many foreign drivers are active. In 2013 38% of the kilometres made on German toll roads by trucks were made by foreign vehicles²⁴⁷. A mandatory training system for German drivers only could therefore be less effective in terms of road safety. Such a mandatory training system for German drivers only would also have an impact on level playing field. For road transport segments where the international character is evident, the EU has a role to play to ensure adequate training of all drivers.

Our analysis in chapter 2 shows that EU-added value can be expected in road transport with HGVs, where the share of international transport with HGVs is about 33% of total transport with HGVs. EU-added value is expected to be less in the LGV market segment where international transport has a share of less than 5%. Also a more limited EU-added value can be expected in the bus and coach market segment (in comparison with HGV segment) where international transport has a share of more than 8%. We do not expect EU-added value in the taxi market, because of a negligible international dimension.

9.3 Labour mobility

The first component of EU added value is related to free movement of labour.

It has been assessed that intervention was necessary for the improvement of labour mobility (See Section 6.3). The question on labour mobility is linked to the mutual recognition mechanism in place. Defining a mechanism at EU level allows having a single mechanism valid in all countries.

Directive 2003/59 established a mutual recognition system which functions through the marking of code 95 on either the driving licence or the Driver's Qualification Card. This enables recognition of the training in case drivers move from one Member State to the other.²⁴⁸ In the absence of the Directive, the recognition of trainings carried out

²⁴⁷ Mautstatistik, Bundesamt für Güterverkehr (BAG), 2014.

²⁴⁸ Article 10 of Directive 2003/59/EC.



abroad would have been left to the discretion of the Member States, and as a result, different systems might have existed across the EU, likely hindering the drivers' ability to move from one Member State to another for employment purposes. Lacking any mutual recognition system among the Member States, professional drivers would have been hindered from moving to another Member State since their training would not have been recognized and would be unable to take up employment as drivers. Thus, introducing the mutual recognition mechanism was a necessary element of the Directive to foster the mobility of drivers.

However, the way the mutual recognition is set up has brought some unintended effects on labour mobility, which were discussed in earlier parts of this report.²⁴⁹

There is added value of defining training of drivers at EU level in terms of mobility of drivers but it is somewhat undermined by the unintended effects. EU added value could therefore be further increased by addressing this problem of mutual recognition.

9.4 Harmonization of training

Secondly, acting at EU-level brings the benefit of harmonizing training requirements throughout EU Member States. Harmonisation of training has been shown to be necessary due to the fact that training of professional drivers was not provided in all Member States (see Section 2.1.), and that it is necessary to establish a common framework for training (See Section sections 4.3 and 4.4).

Figure 1 below compares the status of training and its (non-)mandatory nature before and after the Directive. Prior to the enactment of the Directive, there was a lack of specialized training for professional drivers across the Member States (except in the six Member States mentioned earlier in this report).²⁵⁰ This formed a vacuum in the common policy objective to improve road safety across the EU.²⁵¹ Also this meant that, prior to the Directive, only 5% to 10% of the total drivers were trained on EU level.²⁵² As shown earlier in this report, even in Member States where training did exist, there were substantial differences in terms of structure, mandatory nature of the training, and the curricula covered.²⁵³ In all other Member States, no separate training scheme for professional drivers was in place.

²⁴⁹ See Section 4.3.5. above.

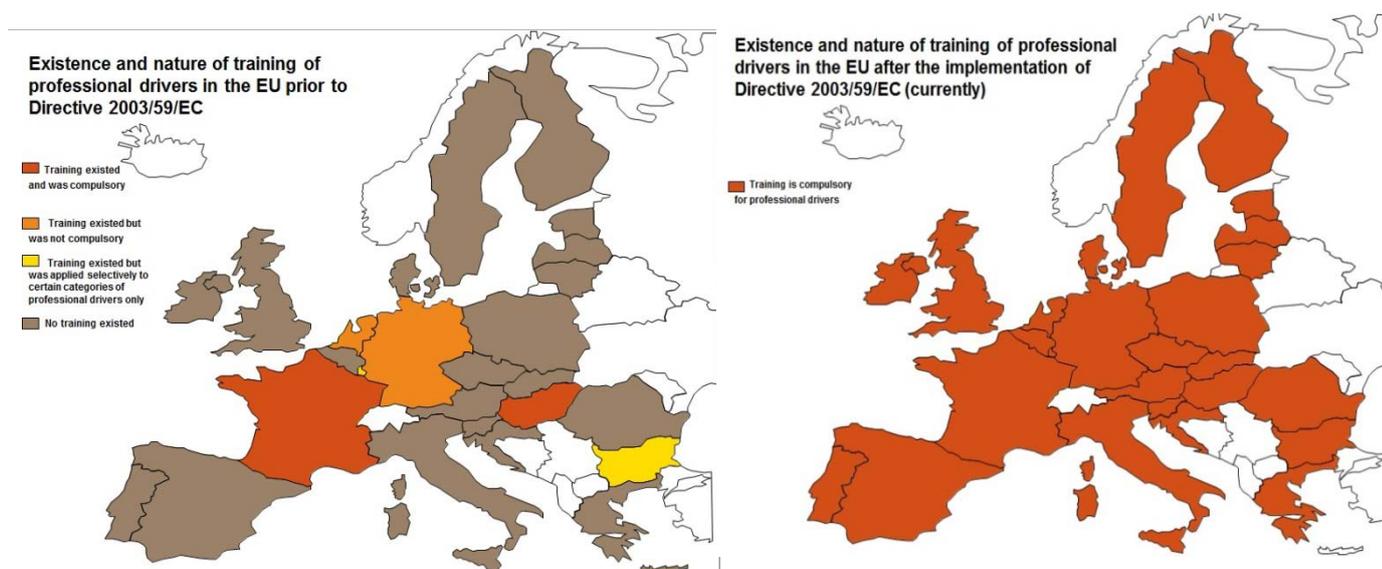
²⁵⁰ France, the Netherlands, Germany, Hungary, Luxembourg, and Bulgaria. See further Section 2.1. above.

²⁵¹ Commission White Paper European transport policy for 2010: time to decide, COM (2001) 370 final, pp. 108-109.

²⁵² European Commission Press Release, 'Road safety: EU professional drivers finally required to undergo professional training', IP/03/1245, 15 September 2003.

²⁵³ For a detailed discussion on the differences, see *supra* Section 2.1.

Figure 7 Existence and nature of training prior and after Directive 2003/59/EC



Source: Panteia Consortium Questionnaire (2014)

The Directive brought thus benefits on two levels: first, it extended the training requirement to all EU Member States; and second, it harmonized the minimum training requirements in terms of structure, content and scope of application. This in turn has allowed setting a level playing field for drivers and for companies employing them.

This harmonisation and level playing field would not have been reached to such an extent by acting at a different level than at EU level.

9.5 Member State policies in a situation without the EU initiative

The question arises whether action at Member State level would have been taken to introduce driver trainings in the absence of the Directive. The stakeholder consultation procedures (i.e., the consortium questionnaire, interviews, public consultation and stakeholder conference) revealed no evidence that prior to Directive 2003/59/EC plans were made by Member States to introduce trainings where this was lacking. Even considering that such measures would have been taken, the nature, curricula and scope of application of the trainings would have likely been substantially different across the Member States. This assumption is based on the diverging training practices that existed already prior to the Directive in the six Member States as discussed earlier in this report.²⁵⁴ A similar pattern of difference would likely have persisted and expanded across the EU in the absence of the Directive. This would have resulted in some Member States having a compulsory training, others a voluntary one, and again others requiring training only for some types of drivers.²⁵⁵ The curricula and scope of application would also have been different.²⁵⁶ In turn, this would have resulted in varying levels of contribution to the objective of road safety, since in Member States with stricter training rules, the effects would likely have been more important than in Member States with voluntary or no training requirements. In such a situation of great divergences, it is likely that mutual recognition of the trainings

²⁵⁴ For a detailed discussion on the differences, see *supra* Section 2.1.

²⁵⁵ *Ibid.*

²⁵⁶ With respect for the differences in scope of application, the examples of Luxembourg and Bulgaria must be mentioned. In Luxembourg, training was only mandatory for drivers of public busses, while in Bulgaria, only for drivers working internationally.



would not exist or would be limited only to bilateral agreements between Member States. For instance, mutual recognition and validation of completed training through the driving licence or Drivers Qualification Card would likely not be possible, unless bilateral agreements were set up. In conclusion, even in a hypothetical best case scenario, the Directive would still bring an additional value in comparison to the best efforts of the Member States. Moreover, the level playing field for drivers and undertakings would be negatively affected since the varying levels of requirements across Member States would result in varying levels of burden for the drivers and undertaking (for instance, in one Member States the driver would be subjected to rigorous training and financial burden, while his colleague in another Member State could enter the market without any training).

Indeed, the consultation of stakeholders revealed the general belief that it is relevant to have such a Directive at a European level. In particular, 90% of all stakeholders responding to the questionnaire believed that the training adduced by the Directive contributed to making the European roads safer.²⁵⁷ Also, during the stakeholder conference, there was a general consensus on the relevance of the Directive.²⁵⁸

9.6 Conclusions

The main findings of this section can be summarized as follows:

- The international dimension of road transport justifies initiatives in the field of driver training at EU level, especially in the HGV and bus/coach market segments. Without initiatives at EU level, countries would be hesitant to take national initiatives in this field, because such initiatives would not reach foreign drivers active within their territory, and would create an unlevel playing field.
- Addressing training at EU level has allowed improving labour mobility. Free movement of drivers is increased by establishing the mutual recognition system. Nonetheless, the true benefit of this mechanism is somewhat undermined by the problems created by different means of validation of completed training and the non-recognition of partial trainings.
- The harmonization of minimum training requirements for professional drivers across the EU-28 is a benefit adduced by action at EU level because it ensures a homogeneous minimum training for all EU drivers regardless of where the driver receives the training.
- When comparing the Directive's mechanism to the best efforts that Member States' action could have produced, the Directive appears to bring benefits which could not have been brought at national level. Main additional benefit is of the mutual recognition system which Member States' action would likely not have been able to achieve to the same degree as through the Directive's current recognition system. Additionally, the Directive also raised the level playing field for drivers and undertakings, which would not have been possible without the Directive due to diverging training requirements across the Member States.
- When comparing the Directive's mechanism to a 'no action' scenario it is likely that a part of the Member States would not have adopted a specialized training for professional drivers (other than the training needed for the driving licence). Among those Member States where training would have been available, differences would have persisted with respect to the nature of the training (i.e., mandatory or compulsory), the content, and scope of application.

²⁵⁷ Report on the Public Consultation for Directive 2003/59/EC, Answers to Question 1.

²⁵⁸ Report on the Stakeholder Conference of March 2014, conclusions of Session 1.

Part 4 Conclusions



10 Conclusions

10.1 Introduction

This chapter summarizes main data limitations, the key conclusions of the study and presents the answers to the evaluation questions. The reporting structure is in line with the evaluation questions specified in the Terms of Reference.

10.2 Main data limitations encountered during the evaluation

The main data limitations are:

- Lack of availability of up-to-date accident statistics and data on vehicle-kilometres which are only available in a limited number of countries. This hinders the analysis of the impact of the Directive, also given the fact that in most Member States the deadlines for periodic training has been postponed, in some cases up to 2016.
- Information on the number of drivers comes from the Labour Force Survey and is not always supported by information from the national registers on the number of trainings completed from three Member States (i.e. France, Spain and the Netherlands). However, as the Eurostat data is the best sound source available for all 28 Member States it was agreed with the Commission to use it as a main source of information, bearing in mind that in some Member States the exact number of drivers might be higher.
- Lack of quantitative data regarding the implementation of the Directive in the Member States (quantitative data on the number of drivers who encounter problems with mutual recognition, on the number of drivers that relocated to another country, the lack of quantitative data on the implementation of the Directive in Member States in terms of number of CPCs issued, number of partial trainings, and quantitative data on control and enforcement, etc).
- Representativeness of stakeholders in terms of EU countries. By far the most respondents of the public consultation were from the UK (51%), of which most were individuals. Representation of respondents from the countries that joined the EU since 2004 was low with around 2%.
- Stakeholders were often unable to provide (relevant) quantitative data. Although they were aware about the existence of certain problems (through complaints of association members, discussions, or hearsay), there were no clear records kept that would help determine the magnitude of the problems.
- The categories of participants of the stakeholder conference reflected the categories of respondents of the public consultation, with the exception of individual participants. Most of the participants represented training institutes or road transport associations. In many cases transport associations have business units dealing with training.

10.3 Relevance

Q1: To what extent is the defined scope (in terms of drivers covered, training and testing provisions, in terms of topics, duration, frequency,, etc.) relevant and sufficient to ensure increased road safety and a level playing field?



Drivers covered²⁵⁹:

- Our analysis shows that HGVs are involved in more than 15% of the total number of fatalities²⁶⁰ in 2010. Compared to the number of fatalities in HGV vehicles (driver fatalities) from accidents, 2.4% of the total number of fatalities, this is indicative of the impact of HGV on other road users during accidents (section 2.4).
- In terms of the number of deaths per distance travelled by HGVs it shows that HGVs are generally less safe than the country average for the entire vehicle fleet. For instance, in Austria, France and Great Britain HGVs are involved in more than twice as many fatal collisions per billion km travelled as the average vehicle (section 2.4).
- Our analysis shows that busses and coaches are involved in almost 3% of the total number of fatalities in 2010²⁶¹. Compared to the number of fatalities in busses and coaches from accidents (driver fatalities), 0.4% of the total number of fatalities, this indicates that busses, similar to HGV, are relatively less safe towards their environment than other road modes when accidents occur (section 2.4).
- Although buses and coaches remain the safest mode of road transport for their occupants, in the countries recording the distance travelled data, buses and coaches are less safe in terms of deaths per distance travelled than the average for the entire vehicle fleet (section 2.4).
- Our analysis shows that the relative risk (fatalities/billion vkm) for LGVs is low, especially because the impact on other roads users is lower compared to heavier vehicles such as HGVs and busses and coaches (section 2.4).
- The data from the countries that record the distance travelled by goods vehicles under 3.5 tonnes shows that, per kilometre travelled, the safety of LGVs is generally better than that of the entire vehicle fleet (section 2.4).
- No data on the involvement of taxis in accidents are available. Though some studies suggest that taxis are over-involved in accidents, exact data are not available and no comparison could be made with other vehicle categories. The fact that taxi transport is mainly limited to short distance transport within urban areas local initiatives in the field of driver training seem more appropriate (section 2.4).
- To be able to evaluate the scope of the Directive in terms of drivers covered, it is necessary to make an additional analysis of the exemptions defined by the Directive. Our analysis shows that the estimated share of exempted drivers differs considerably between countries, and our calculations show that on average up to 13.2% of drivers might be exempted (Section 4.3). However, statistics on the specific involvement of drivers in the exempted categories in accidents are not available. Since it might be assumed that drivers exempted under Article 2(b), 2(d) and 2(e) of the Directive receive additional driving training because of the special character of their job, the Consultant estimates the influence of the exemption on road safety are limited. This contributes to our conclusion that the influence of the defined exemptions on the number of drivers covered by the Directive is relevant and sufficient to ensure road safety.
- The Public Consultation showed that respondents are also evenly divided on the possibility of extending the scope of the Directive to other types of licence holders, in particular professional drivers holding a B-licence.

²⁵⁹ The Directive focuses on professional drivers with a C and/or D driving license. Because road safety statistics are based on vehicle categories, for the analysis the Consultant translated the categories of professional drivers to vehicle categories. In the goods transport sector a C driving license equals transport with heavy goods vehicles with a maximum gross vehicle weight of more than 3.5 tonnes (HGVs), in the passenger transport sector a D driving license equals transport with busses/coaches for more than 8 persons. To evaluate the scope the analysis was extended to other categories of vehicles which are used by professional drivers: vehicles with a maximum gross vehicle weight up to 3.5 tonnes, busses/coaches with a maximum of 8 persons, and taxis.

²⁶⁰ See Table 31

²⁶¹ See Table 35

- During the stakeholder conference there was broad agreement among the stakeholders that the Directive is relevant and necessary, but it has to be improved especially as regards implementation. That should be given priority over considerations on extending its scope to other vehicles.
- Our analysis of the international dimension of different road transport market segments showed that cross-border transport operations are important for transport with HGVs (one third of the market), less important for transport with LGVs (less than 5%), and important for transport with busses and coaches (8%), especially because the 8% is mainly transport with coaches (section 2.3).

Based on the analysis and findings, the Consultant concludes that the scope in terms of drivers covered is relevant and sufficient to ensure increased road safety. In terms of level playing field, the defined scope is relevant and sufficient given the important international dimension, and therefore international competition, of transport with HGVs and busses and coaches, while LGVs and taxis have a neglectable international dimension.

Training and testing provisions:

- Our analysis shows that human error is the main cause of traffic accidents worldwide, also for accidents where HGVs and/or busses/coaches are involved. This indicates that in principle training of drivers, if focused on the avoidance of human error, could contribute to road safety (section 3.2).
- Studies on the effects of driver training on safety indicate that training aimed at danger recognition has a positive effect on road safety, and other forms of training have little or no effect (section 3.2).
- Annex 1 of the Directive includes some topics related to the subject of danger recognition²⁶², but a direct reference is missing.
- There is an overlap in the topics of Annex 1 with the topics in the Directive 2006/126/EC on driving licenses (Section 8.2.4). This will be covered under the efficiency criterion.
- Annex 1 needs to be updated for developments in vehicle technology and electronic devices and monitoring systems.
- As regards periodic training, the Directive does not mandate the validation of a completed periodic training through a test. In addition, periodic training does not require direct vehicle related training nor danger recognition. In fact, the 35 hours periodic training could be done in a classroom without any practical training (section 4.4.3).
- The stakeholder conference revealed that there is a need to improve the training system. There is unanimity in that the training system has to be made more adaptable to the actual needs of the drivers and companies, and there is also a need to make it more flexible over time with more direct involvement of the stakeholders and the industry. Furthermore, periodic training should present a training that is meaningful for the drivers, and there might be a need to replace a fixed periodic training with a more life-learning approach. Also improvements are needed in the field of quality assurance systems (section 3.6).
- The Public Consultation showed that 82% of the respondents believed that the subjects of Annex I are relevant, but they disagreed as to the level of their importance. Accordingly, 34% indicated that the subjects are very relevant, while close to half of the respondents opined that the subjects of are only somewhat relevant to the objectives of the Directive. 11% believed them to be irrelevant, while 7% did not answer this question (Section 3.3).

²⁶² The subjects in Annex 1, points 3.1 and 3.5 are related to "danger recognition", but only to a limited extent.



- Chapter 4 describes how the training and testing provisions resulted in a wide variety of systems in the Member States.

On the basis of the finding that human error is the main cause of traffic accidents, and only certain training (danger recognition) has a potential positive effect on road safety, while other training seem to have limited or no effect, the Consultant concludes that the training and testing provisions, in terms of topics, duration and frequency is only partly relevant and sufficient to ensure road safety. In terms of level playing field, the training and testing provisions resulted in many different training and testing systems, and a wide variety of content of training programmes, and a wide variety of costs related to training and testing. The Consultant concludes that the defined scope in terms of training and testing provisions is relevant but not sufficient to ensure a level playing field.

10.4 Effectiveness

Q2: What are the main problems with the implementation of the Directive in Member States? Is there any evidence of existence of abuse, non-compliance, fraud or non-implementations, and if relevant, what are the extent and the characteristics of fraudulent practises?

Main problems with implementation:

- Difficulties with the interpretation of the articles on exemptions. The estimated share of exempt drivers differs considerably between Member States, ranging from less than 2% in Finland to over 20% in France, Greece, Malta and Slovak Republic (Section 4.3.2). A strong majority, i.e. 18 out of 25 Member States that provided information, indicates that they are fully compliant with Article 2 of the Directive (section 4.3.2). Given the vast differences in number of drivers exempt and the strong majority of Member States that consider themselves to fully comply, a common interpretation of Article 2 of the Directive seems to be an issue.
- There is legal uncertainty about the minimum age, as the minimum age in Directive 2003/59 differs from the minimum age mentioned in the Driving License Directive 2006/126/EC.
- Problems with mutual recognition, which are described in the next section.
- The practice regarding the allocation of 35 hours of periodic training over a 5 years period is subject to discussion. Some Member States allow a spread of the 35 hours over the 5 year period, while other Member States (Bulgaria, Estonia, France, Greece and Hungary) 35 hours of training need to be made during consecutive days. The latter reduces flexibility for companies and influences level playing field.

The level of discretion allowed under the Directive is broad, and the wording sometimes unclear, leaving Member States the options to implement the Directive in many ways. This has resulted in a divided landscape on issues such as exemptions, systems of initial qualifications, minimum driver age and means of providing proof of CPC. Variations are further created as a result of different interpretations of the Directive by Member States, for example on exemptions. These differences result in problems related to road safety, level playing field and mutual recognition (as reported in other sections of this chapter).

Abuse, non-compliance, fraud, non-implementation

- No statistical evidence proving the existence of abuses and fraud with regards the requirements of the Directives was recorded by the Member States in a response to the Consortium questionnaire (section 4.3.7).

- The International Road Safety Association in its report discusses a case of fraud detected in Germany, where it was discovered that certificates were sold for the amount of EUR 2002²⁶³ (section 4.3.7).
- Transposition in Luxembourg and Portugal took place after the set deadline in the Directive (section 4.2.2).

Regarding the existence of abuse and fraud, insufficient evidence could be found in desk research and stakeholder consultation that would justify conclusions in this area.

Q3: To what extent do the provisions establishing initial/periodic training and/or testing allow for increased mutual recognition of training and certification?

- The provisions establishing initial/periodic training and/or testing give Member States a number of different options to implement the Directive in their countries.
- Fifteen Member States have opted for the combination of course and test, while eleven Member States have chosen the "test only" option. Germany has implemented both options (section 4.4.3).
- Annex 1 specifies the topics of the training, and can be seen as a driver of harmonisation. However, our analysis shows there is a wide variety in content of the training across Member States (section 4.4.3 and 4.4.4).
- In eight countries Code 95 is only marked on the driver license, the other countries additionally have the possibility to issue a Driver Qualification Card (section 4.3.5).
- The Directive lacks the description of a detailed quality control system for training centres and instructors.
- The Directive obliges Member States to recognise Code 95 on a driving license or a Driver Qualification Card, but does not oblige countries to accept CPCs of certified training centres. In combination with the situation that Member States are not obliged to issue a Driver Qualification Card, this leads to a situation that drivers cannot prove they were trained in other Member States (section 4.3.5 and 4.3.6).
- The Directive does not mandate testing after periodic training, which hinders the assessment of the quality of the training provided (section 4.4.7).
- There are problems with the recognition of CPCs, manifesting itself in recognition of (i) completed training and (ii) partial training. The problem with the recognition of completed training followed abroad is related to the fact that completed training is proven by the Code 95 on the driving license or on the Driver Qualification Card. These cards, issued by Member States, shall be mutually recognised according to the Directive. However, problems with the recognition of completed training may occur when foreign drivers attend periodic training courses in Member States that do not issue a Driver Qualification Card, i.e. Austria, Germany, Greece, Latvia, Lithuania, Malta, the Netherlands and Poland. As an illustration, it is estimated that some 500 French drivers working in Saarland share this problem (section 4.3.5). Secondly, most Member States do not recognise partial training done in foreign countries (section 4.3.6). The problem with recognition of partial training is related to the fact that almost all countries do not recognise training certificates issued by foreign training institutes, and there is no information exchange system or procedure between countries about partial training courses attended by drivers.
- This is partly acknowledged by stakeholders during the public consultation; 54% of the total respondents indicated that a higher level of recognition should be pursued. 72% of the respondents indicated to be in favour of establishing a

²⁶³ International Road Safety Association e.v., 4. ad hoc-AG-Sitzung BKF (5 November 2013)



mechanism for the mutual recognition of partial periodic training carried out abroad.

The Consultant concludes that the Directive partially contributed to increased mutual recognition of training and certification through the harmonising effect of Annex 1, and the fact that the Directive obliges Member States to recognise code 95 on the driver license or on the driver qualification card. However, problems have in particular arisen with the recognition of completed and partial training undergone in another Member State.

Q4: To what extent has the Directive contributed to an improved consideration of the profession of driver and to the attractiveness of the sector?

- Because of the impact of the economic crisis which led to a decrease in employment in the sector (chapter 2), there are no labour market statistics that could support a quantitative assessment of the contribution the Directive made in increasing attractiveness of the profession. Therefore we make use of the results of a number of studies and the public consultation.
- There are indications (ProfDRV project results, STARTS study, Public Consultation) that the Directive brought no positive effects on the attractiveness to the profession. On the contrary, it may have added an additional barrier to entering the profession.
- 60% of the stakeholders responding to the public consultation believed that the image of the profession of driver could be increased through the harmonisation of requirements of training and qualifications standards. It is also apparent that vocational training could positively contribute to the image of the sector (section 2.5.3).
- During interviews stakeholders indicate that the Directive contributed to the attractiveness of the profession because the Directive sets a lower minimum age than Directive 2006/126/EC.
- There is a lack of integration of driver training into the formal VET systems of Member States, and problems with the recognition of training lowers the attractiveness of the profession.

In light of the above, it is the Consultant's opinion that the Directive on the one hand did not contribute to the attractiveness of the sector due to the additional training and financial burden, as well as the lack of prospect to receive a recognized diploma at the end of the training.

Q5: To what extent has the Directive contributed to the achievement of its objectives in terms of:

Ensuring free movement of drivers within the EU road transport sector?

- In the period before the Directive but also in the period after the Directive was implemented but the deadlines for periodic training were not yet reached (Section 4.2.3), drivers, especially from eastern parts of the EU, relocated to western parts of the EU, depending on the legal framework concerning working and payment conditions. As an example, Austria reports that an estimated 20% of the driver workforce is foreign.

- The analysis of the situation in the period before the Directive (Section 2.1) shows that drivers during that period could relocate to other countries and could work as a driver in other EU Member States solely on the basis of their driving license, with the exception of France and Hungary, where foreign drivers were supposed to take additional training to get a CPC.
- As already indicated (Section 5.4), in the current situation there are problems with the recognition of (partial) periodic training undergone in another Member State. These problems may affect the mobility of drivers. The expectation is that most of these problems will surface in September 2014 when in 16 countries the deadline for periodic training for C-licensed drivers expires.
- In the Public Consultation, 48% of the respondents considered that the Directive did not facilitate the mobility of drivers across the EU at all, and 34% considered that the Directive did have a role in this process, but this role was only marginal.

It can be concluded that the Directive in principle contributes to ensuring free movement of drivers within the EU road transport sector, but due to problems with mutual recognition of (partial) periodic training was only partially effective.

Defining standards of professional competence?

- The Directive had an initial positive impact on professional competence since prior to the Directive only 5% to 10% of the total drivers received training and in most Member States there was no training at all (Section 2.1).
- Results of the public consultation show that 82% of the respondents consider the subjects of Annex I to be relevant and majority of the stakeholders (55%) considered that the Directive contributed to the development of the drivers' professional competence, but it did so marginally. 25% of the respondents believed that the contribution was significant while 20% did not see a contributory role at all. The majority stakeholders that attached a marginal role to the Directive's contribution to professional competence argued that Annex I fails to accommodate the individual needs of the drivers (answers to the public consultation Q6 – main findings under Section 3.3.3).
- The subjects now included under Annex I of the Directive have not been updated in the past decade, and there appears to be a need for it.
- Although the minimum level of subjects stipulated under Annex I of the Directive have been implemented in the training programmes of Member States, only nine of the 27 have also enacted a national syllabus for initial qualification (which could contribute to better defining national standards of professional competence). 60% of the respondents to the public consultation would prefer a uniform European syllabus to facilitate this process (section 4.4.3). Such an approach would solve problems with differences in the way the Directive is applied between Member States and would avoid loopholes such as being allowed to do the same course 5 times. But at the same time it would be more difficult to address specific national characteristics of driving in a certain country.

In light of the foregoing, the conclusion is that the Directive contributed only marginally to defining standards of professional competence since Annex I fails to accommodate the individual needs of the drivers, its subject coverage has not been updated in the past decade, in most Member States there are no national syllabi in place to foster the definition of standards of professional competence, and a detailed quality assurance system focused on training centres is missing.



Improving road safety and safety of drivers?

- Member States are allowed to extend the deadline for periodic training with a maximum of seven years: in 15 countries the deadline for periodic training for C-license drivers is end of 2014, in 3 countries end of 2015, and in 5 countries end of 2016. For D-license drivers, 7 countries extended the deadline to 2015 (Section 4.2.3).
- It is estimated that around 32% of the total number of drivers holding a C and/or D driving license have been issued a CPC since the start of the system till the end of 2011, and around 60% till the end of 2012 (Section 4.2.3).
- Literature review shows that training of drivers focused on danger recognition has a potential positive effect on road safety (Section 3.4.3). Our analysis of Annex 1 shows that this subject is not explicitly described (Section 6.3), and therefore this type of training is not a mandatory element in national training programmes.
- Our analysis of the Directive and national training programmes shows that periodic training can be done in a classroom, without any practical training, and without a test to measure whether the candidate has learned something. Literature review concludes that this type of training will not have an impact on road safety (Section 3.2.3).
- The Directive does not foresee in a detailed quality assurance system to be applied by Member States. During interviews and in position papers²⁶⁴, stakeholders have stated that such a system is needed to assure quality training.
- Accident statistics show a slight increase in fatalities for the year 2010, but in terms of relative risk (fatalities/billion vkm), the statistics are too incomplete to present an overall view for the EC Member States (Section 6.2).
- Accident statistics that are complete and detailed and therefore can be used in an analysis of the impact of the Directive on road safety are only available till 2012, and given the finding that at that moment only 60% of the drivers was trained (Section 4.5.2), at this moment a statistical analysis cannot be applied.
- In the public consultation 49% of respondents indicated that the Directive has indeed contributed to the improvement of road safety, but only to an insufficient degree. Only 16% considered that this contribution was significant, while 29% of the respondents opined that the Directive did not contribute to increasing road safety at all (Section 3.3.3).

It can be concluded that it is too early to fully assess whether the Directive has contributed to improving road safety and the safety of drivers on the basis of road accident statistics.

On the basis of training and testing provisions and the content of Annex 1, the Consultant concludes that the Directive only marginally contributed to improving road safety but could have a larger effect if it addresses topics which are shown to greatly impact safety.

Setting a level playing field for drivers employed by an undertaking in the EU?

- In the period before the Directive in France, the Netherlands and Hungary existed mandatory CPC systems. This created an unlevel playing field for drivers from these countries in comparison with drivers from other countries who only needed a C/D-driving license. In the current situation all drivers need to have a CPC (except exempted drivers), which contributes to a level playing field. However, costs for training and funding schemes vary among Member States.

²⁶⁴ See position papers, of IRU, ETF and UITP.

- Global calculations of the Consultant show that the effect of the Directive on costs is around 0,2% for total costs for enterprises. Unlevel playing field caused by different funding schemes result in costs per driver for periodic training carried by enterprises, ranging from € 0 (countries in which the driver carries the costs) to € 397 (countries in which the enterprise carries the costs).
- As mentioned earlier, the broad level of discretion allowed under the for Member resulting in differences in implementation on issues such as exemptions, systems of initial qualifications, minimum driver age and means of providing proof of CPC. These variations in implementation lead to differences between Member States in costs for enterprises and thus competitive (dis)advantages, creating a non-level playing field (Sections 4.3 and 4.4).

The Consultant concludes that the Directive on the one hand has made training obligatory for all professional drivers in the EU, contributing to a level playing field. At the same time, due to differences in implementation of the Directive in the Member States, situations of non-level playing field have emerged.

Q6: Which factors have hindered the achievement of objectives of the Directive?

General:

- Some Member States used the option to extend the deadline for periodic training. Consequently, not all professional drivers have received the first full course of training (Section 4.2.3). The number of CPCs issued is estimated to be around 32% of the total number of drivers holding a C and/or D driving license by the end of 2011, and around 60% by the end of 2012. Consequently, the ability to measure the effect of implementation of the Directive is limited (Section 4.5.5).
- Article 2 of the Directive provides Member States the possibility to exempt drivers. It is estimated that around 13.2% of the total number of drivers is exempt. The estimated share of exempt drivers differs considerably between Member States, ranging from less than 2% in Finland to over 20% in France²⁶⁵, Greece, Malta and Slovak Republic (Section 4.3.2). Notably in those Member States with high shares of professional drivers exempted, the reach of the Directive is restricted and thus the achievement of objectives is hindered.
- The economic crisis interfered with the focus on driver training. The economic crisis has had its influence on the road transport sector, and especially regarding the development of employment (Section 2.3.3).

Objective road safety:

- The Directive does not prescribe a curriculum, but provides a general description of topics to be included in training. Based on the information provided by the Member States, it can be concluded that there is a wide variety regarding the content of the training across Member States. This variety applies to the coverage of items, as well to the extent that guidance is provided in setting up a training programme. Furthermore, the Directive does not mandate the inclusion of a practical training within the framework of the periodic training, creating a division among the Member States as to incorporate a practical element or maintain only a theoretic training. This wide discretion paved the way for the growing problem of insufficient uniformity in the periodic training across the Member States (Section 4.4.3). The lack of uniformity may hamper the effectiveness of the Directive related to the road safety objective (Section 4.4.3). Furthermore, the Directive does not mandate the

²⁶⁵ For drivers for carriage of goods.



topics (danger recognition) to be included in the training of which research has shown that such training has positive results.

- The Directive does not specify detailed quality control mechanisms for training centres and instructors. The public consultation indicates that establishing a common framework for training and testing, further harmonisation of the training, and common requirements for training centres and instructors are seen by two-thirds of the stakeholders as further contributing to the objectives of the Directive (Section 3.3.3).

Objective level playing field:

- Variations in implementation the Directive at Member State level has resulted in non-level playing field. For example in the case of a different application and interpretation of exemptions, due to different systems and hence costs of initial qualification systems and due to differences in the minimum age to obtain a CPC (Section 4.3.7). In all areas where there is a potential cost (dis)advantage the issue of level playing field is at stake.

Objective free movement and mutual recognition:

- The possibility for Member States to choose between marking Code 95 on a driving license or on an official Driver Qualification Card has created problems with recognition of training undergone abroad (Section 4.3.5). This has resulted in problems of mutual recognition.
- The Directive does not define provisions for the recognition of partial training undergone abroad. The willingness of Member States to recognise partial training followed abroad is limited; 14 out of 20 Member States respond that they do not recognise partial training (Section 4.3.6). This negatively affects mutual recognition. There is an absence of a common structure which hampers mutual recognition. and an absence of a network of exchange of information between Member States which would help in a situation in which Member States do not recognise foreign training certificates.
- The lack of uniformity in implementation of training in the Member States, as presented above, is likely to be at the basis of, or at least contribute to, problems related to mutual recognition, (Section 4.4.3).

Funding:

- Training costs and funding systems differ widely across Member States.

It can be concluded that the main factors hindering the achievement of the objectives are related to the fact that the deadlines for periodic training were set relatively late, uncertainty about exemptions, content of training programmes not focused on topics that have proved to lead to results, lack of quality assurance system of training centres/courses, and problems with mutual recognition of training undergone in foreign countries.

Q7: To what extent has the Directive created unintended effects, such as an unlevel playing field for drivers?

- The Directive's mutual recognition system, which was meant to serve as a tool to improve the mobility of drivers, created at least two unintended side-effects that undermine the free movement of drivers: first, allowing two different means to validate the completed training could result in problems when the host Member State opted to mark code 95 on the driving licence but it cannot do so with driving licences issued by another Member States; and secondly, the Directive does not

- regulate the recognition of partial trainings carried out abroad which creates difficulties when a driver moves to another Member State while having completed parts of his training in a different Member State. (Section 4.3.6 and 9.3).
- Although the objective of the Directive was to enhance professional competence in the sector and increase attractiveness of the profession, studies show that it may have added an additional barrier to entering the profession. (section 6.3).
 - The Directive had an unintended negative effect on the level playing field for drivers as a result of the differences among Member States in transposition and implementation, differences in costs of training and funding schemes, differences in content of training programmes and training tools (section 5.3.6), and differences in minimum age for drivers' entry to the profession (section 5.3.7).

On the basis of these findings, it can be concluded that the Directive created unintended negative effects on the mobility of drivers, attractiveness to the profession, and level playing field for drivers.

Q8: How has Directive 2003/59/EC contributed to a better awareness of and compliance with other rules in the field of road transport, such as for example Regulation 561/2006/EC on the harmonisation of certain social legislation relating to road transport or Directive 2008/68/EC on the inland transport of dangerous goods?

- The Directive mandates all topics of Annex 1 to be included in initial qualification. These topics include the social environment of road transport and the rules governing it and the regulations governing the carriage of goods/passengers, as well as other rules on safety and health etc.
- The Directive does not mandates all topics of Annex 1 to be included in periodic training. The Directive states that during periodic training specific emphasis should be on road safety and the rationalisation of fuel consumption, and that periodic training shall be designed to expand on, and to revise, some of the subjects referred in section 1 of Annex I.
- Some Member States (Czech Republic, the Netherlands, Finland, United Kingdom) permitted to add ADR topics to initial and periodic training, while other countries did not.
- Regulation 181/2011 on rights of bus and coach passengers also relies on the CPC training scheme as a tool for adequately training drivers on how to respond to the needs of disabled persons, as well as facilitates the mutual recognition of national qualifications of similar trainings (Section 8.3.6).

It can be concluded, that given the fact that before the Directive only 5% to 10% of drivers had any form of training and now almost all new C and D-licensed drivers need to have knowledge of topics such as social regulations and regulations on the carriage of goods and passengers, that the Directive contributed to better awareness of other rules in the field of road transport, including knowledge of the transport of dangerous goods. The conclusion refers to new drivers because they need to cover all topics of Annex 1, while periodic training does not have to cover all topics.

10.5 Coherence

Q9: To what extent is the Directive in line with provisions of Directive 2006/126/EC on driving licences? What are the differences, overlaps or contradictions?



- Both the driving licence Directive and the CPC Directive contain harmonizing rules on road safety, but they differ in terms of objectives since the CPC training pursues a wider range of objectives than the driving licence Directive, e.g., raising the professional competence of drivers, promoting labour mobility, etc. (Section 8.2.1).
- The minimum age requirements set out in the two instruments do not coincide since the driving licence Directive fixes the minimum age at 21 (for truck drivers) and 24 (for bus drivers), while the CPC Directive lowers this to 18 years (for truck drivers) and 21 years (for bus drivers). This creates a situation of legal uncertainty, which is also visible in the diverging practice of the Member States (see Table 8 and Section 8.2.2).
- The periods of validity of the driving licence and the CPC (both being 5 years) are not harmonized despite the fact that the CPC Directive encourages this. Having two separate periods of validity may result in an additional burden for drivers whose CPC qualification is marked on the driving licence since they will be required to ask for a new driving licence not only when its validity period expires but also when the CPC qualification must be renewed (Section 8.2.3).
- There are also overlaps in the subjects of the two trainings, in particular on subjects relating to driver attitude, general regulatory knowledge and safety. This may create inefficiencies since the drivers may be subjected to the same trainings twice: both under the driving licence Directive and under the CPC Directive (Section 8.2.4).

Differences exist on the minimum age requirements for the entry to the profession, which gives rise to conflicting interpretations and applications by Member States. The content of the training of the two Directives also overlap with respect to certain subjects, which creates a degree of inefficiency in the training of professional drivers.

10.6 Utility

Q10: Given technological developments, to what extent are the provisions of the Directive still relevant, inter alia in the field of e-learning or regarding the use of simulators or also the use of technological devices such as smart tachographs or on board technologies?

- The use of new electronic devices such as ESP (Electronic Stability Program), ABS (Anti-lock Braking System) and Traction Control Systems, as well as the use of IVMS (In vehicle monitoring systems) are missing in Annex 1 (Section 6.3).
- The Directive does not regulate whether or not it is allowed to use e-learning for initial and/or periodic training. E-learning can provide consistent training across multiple locations at relatively low costs. At the same time e-learning requires computer skills and is not equally effective for all users (Section 4.4.5). In the public consultation 60% of respondents consider e-learning a useful contribution to the training (Section 4.4.5). Currently e-learning is allowed during initial qualification in two countries (Estonia, Hungary). During periodic training e-learning is allowed in five countries (Austria, Estonia, Hungary, the Netherlands and Sweden) (Section 4.4.5).
- Annex 1 describes how driving simulators may be used during driver training. Literature indicates that simulators may bring benefits in the case of training of higher-order tasks (such as situational awareness or risk perception) and procedural tasks. Nonetheless, simulators are less effective in case of tracking tasks (for instance speed maintenance) or training for assessing emergency situations. The public consultation shows that most respondents believe that simulators are needed instruments but strongly assert that their use must not be

mandatory. Currently driving simulators are not allowed during initial qualification in two countries (Sweden, Slovenia). During periodic training driving simulators are allowed in all countries, except MT (Section 4.4.6).

- The driver CPC as introduced by Directive 2003/59/EC is not following that learning outcomes approach and the descriptor structure of the EQF: describing knowledge, skills and competences.
- Of the stakeholders, 82% believed that the subjects of Annex I are relevant, and 55% did not see other subjects which would be relevant to the training but are not currently listed in Annex I. 65% of the total respondents did not consider the use of simulators to be useful or did not feel the need to make their use compulsory. 60% of the respondents considered that e-learning could make a useful contribution to the training.

Most of the provisions regarding vehicle technology of Annex 1 of the Directive are still relevant for driver training, although a revision is needed to update some technical issues (outdated brake systems, transmissions systems, EURO norms).

10.7 Efficiency

Q11 Are costs proportionate to results in terms of quality level of professional competence? Are costs reasonable for all stakeholder' groups, including SMEs and micro-enterprises?

- The costs increase related to the Directive is estimated at € 1,791 million per year (section 5.2 and annex 3), or € 497 per driver per year.
- With regard to the proportionality of costs borne by the different stakeholders, it can be concluded that almost half of the costs are borne by enterprises (44%). Public administrations recover most of their costs through fees charged to enterprises and drivers. Costs for trainees (45%) seems particularly high for initial training and testing which may present a barrier to entry to the profession.
- Different funding schemes in Member states lead to differences in costs of stakeholders. There are situations in which enterprises pay all costs of training, and situations where drivers pay all costs related to training, and many schemes in-between.
- Total substantive costs for enterprises associated with periodic training are: € 582 million per year. Total administrative costs for enterprises associated with periodic training are: € 200 million per year. Total compliance costs for enterprises are € 782 million per year. Total compliance costs for enterprises per driver per year are € 217. The Consultant estimates that the effect of the Directive on total costs of road transport companies ranges between 0.1% to 0.2%.
- The implementation costs for public administrations are only a fraction of the estimated total costs related to the Directive.
- To be able to link costs with results, results in terms of quality level of professional competence are quantified by the Consultant as benefits in the field of reducing road safety accidents and reduced fuel use and related reduced emissions.
- Calculations of potential benefits are projected to a situation in which the Directive is fully operational and all drivers have had some form of CPC training (initial and/or periodic).
- Potential savings related to road accidents are estimated at € 2,702 million per year, potential savings on fuel are estimated at € 4,032 million to € 6,862 million per year, and potential savings on emissions are estimated at € 690,000 to € 1,175 million per year. Total potential savings are estimated at € 7,424 million to € 10,740 million per year.



- To assess the impact on SMEs the following figures are important. The percentage of companies in the road transport sector that have fewer than ten employees generally ranges between 65% and 95%²⁶⁶. As an example, in the Netherlands out of the total of almost 12,000 companies active in road freight transport for hire and reward only around 100 firms (0.8%) have more than 100 vehicles²⁶⁷. In Germany out of the total of almost 50,000 companies active in road goods transport for hire and reward only 717 companies (1.4) have more than 51 vehicles²⁶⁸. In short, given the definition of SMEs (more than 250 staff), the Consultant estimates that the number of companies with more than 250 staff is very small.
- At company level, the potential savings described are limited to savings in fuel costs, and possibly some savings in insurance costs and maintenance because of fewer accidents. Savings in reduced fuel use are estimated at € 4,032 million to € 6,862 million per year, or at € 1,119 to € 1,905 per driver per year. This more than outweighs the compliance costs for enterprises of € 217 per driver per year. These savings can be achieved by all enterprises, regardless of size, and thus also by SMEs.

The Consultant concludes that the potential benefits of € 7,424 million to € 10,740 million per year in the form of reduced costs of traffic accidents, reduced fuel use and reduced emissions outweigh the costs related to the Directive, estimated at € 1,791 million per year. To realise the potential benefits, training needs to be focused on reduced fuel use and danger recognition. If the Directive would be functioning at the best possible level, and high quality training would be given to drivers in the field of reducing fuel use and danger recognition the costs would be proportionate to the potential results in terms of quality level of professional competence.

At company level, savings in reduced fuel use are estimated at € 1,119 to € 1,905 per driver per year. This more than outweighs the compliance costs for enterprises of € 217 per driver per year. These savings can be achieved by all enterprises, regardless of size, and thus also by SMEs. It can be concluded that costs are reasonable for all stakeholder' groups, including SMEs and micro-enterprises.

Q12: To what extent would it be possible to achieve the same quality level of professional competence more efficiently by other means?

- There are other EU level initiatives that have the objective of contributing to a higher professional competence of workers in the EU (for instance, Directive 2005/36/EC on the recognition of professional qualifications or the voluntary European Qualifications Framework). The Directive, however, does not integrate well with these initiatives (see Sections 8.3.4 and 8.4.1), but rather creates a separate system of professional competence. Furthermore, neither of these two initiative would be more efficient than the Directive since: (1) Directive 2005/36/EC does not envisage an automatic recognition of professional drivers' training, which is possible through the current recognition system of the Directive (Section 8.3.4); and (2) the EQF is only a voluntary system, and assigning driver training to an EQF level would depend on the determinations of the competent authorities, rather than having a mutually recognized proof of professional competence as it is under the current Directive (Section 8.4.1).
- Another alternative way to raise the professional competence would likely be to combine the specialized initial CPC training with that of the driving licence training. With respect to the professional competence of the driver, this solution would likely

²⁶⁶ Eurofound 2004

²⁶⁷ Transport in Cijfers (2013)

²⁶⁸ Verkehrswirtschaftliche Zahlen (2012/2013).



have brought some benefits in terms of cost savings for the driver, avoidance of overlaps in the two trainings, and easier harmonization of the validity periods. Examples already exist in Belgium and the Netherlands where the two trainings are combined. It must be noted, however, that the specificity of the CPC is considered relevant by the stakeholders. Results of the public consultation show that majority of the stakeholders (51%) would prefer to keep the CPC and driving licence trainings and testing separate from one another (Answers to Q16 of the Public Consultation – main findings in Section 3.3.3).

- Results of the public consultation also show that stakeholders in general believe that the Directive contributed efficiently to the development of the drivers' level of professional competence (25% of them opined that the contribution was significant, while 55% that it was marginal). This indicates that stakeholders have a generally positive attitude towards the Directive's current contribution to professional competence (Answers to Q6 of the Public Consultation – main findings in Section 3.3.3).

In light of the foregoing, it is concluded that other potentially relevant EU level initiatives would not have reached the same level of efficiency as the Directive in terms of the level of professional competence. That is because these initiatives are less comprehensive (e.g., Directive 2005/36/EC), depend to a large extent on a voluntary steps of the competent authorities (e.g., the EQF), or do not (or only partially) cover topics relating to professional competence (e.g., Directive 2006/126/EC on driving licence).

10.8 EU added value

Q13: To what extent has the EU a role to play in the training of professional drivers of trucks and buses. Why should training be regulated at EU level, instead of leaving the decision up to each Member State?

- The road transport industry has a significant international character, with 33% of total transport with HGVs and 8% of total transport with busses/coaches being made internationally. This entails that there is added value in adopting an EU-level action (Section 9.2).
- The international dimension of road transport justifies initiatives in the field of driver training at EU level, especially in the HGV and bus/coach market segments. Without initiatives at EU level, countries would be hesitant to take national initiatives in this field, because such initiatives would not reach foreign drivers active within their territory, and would create an unlevel playing field.
- Addressing training at EU level has allowed improving labour mobility. Free movement of drivers is increased by establishing the mutual recognition system. Nonetheless, the true benefit of this mechanism is somewhat undermined by the problems created by different means of validation of completed training and the non-recognition of partial trainings.
- The harmonization of minimum training requirements for professional drivers across the EU-28 is a benefit adduced by action at EU level because it ensures a homogeneous minimum training for all EU drivers regardless of where the driver receives the training.
- When comparing the Directive's mechanism to the best efforts that Member States' action could have produced, the Directive appears to bring benefits which could not have been brought at national level. Main additional benefit is of the mutual recognition system which Member States' action would likely not have been able to achieve to the same degree as through the Directive's current recognition system. Additionally, the Directive also raised the level playing field



for drivers and undertakings, which would not have been possible without the Directive due to diverging (or lack of) training requirements across the Member States.

- When comparing the Directive's mechanism to a 'no action' scenario it is likely that a part of the Member States would not have adopted a specialized training for professional drivers (other than the training needed for the driving licence). Among those Member States where training would have been available, differences would have persisted with respect to the nature of the training (i.e., mandatory or compulsory), the content, and scope of application.

The EU has a central role to play in the training of professional drivers since adopting relevant legislative measures regulating such training on EU level brought added values in terms of improved labour mobility, notwithstanding current problems with recognition of completed and partial periodic training, and harmonized training requirements across the Member States. It is necessary to regulate the training at EU level because if it was left at the discretion of the Member States, varying or no training requirements would have been introduced.

10.9 Overall conclusions

The overall conclusions are presented according to the evaluation criteria.

Relevance

- The Consultant concludes, given the involvement of HGVs and busses and coaches in accidents and given their relative risks when taking into account the vehicle-kilometres made, and given the relative low risk of LGVs that the scope in terms of drivers covered is relevant and sufficient to ensure increased road safety. This conclusion is partly supported by the Public Consultation that showed a preference to extend the scope of the Directive in terms of drivers covered, and the stakeholder conference that concluded improved implementation should have priority over extension of scope.
- In terms of level playing field, the defined scope in terms of drivers covered is relevant and sufficient given the important international dimension, and therefore international competition, of transport with HGVs and busses and coaches.
- The Consultant concludes, on the basis of the finding that human error is the main cause of traffic accidents, and that only certain training (danger recognition) has a potential positive effect on road safety, while other training seem to have no effect, that the defined scope in terms of training and testing provisions, and in terms of topics, duration, frequency etc. is only partial relevant and sufficient to ensure road safety.
- In terms of level playing field, the training and testing provisions resulted in many different training and testing systems, and a wide variety of content of training programmes, and a wide variety of costs related to training and testing. The Consultant concludes that the defined scope in terms of training and testing provisions is relevant but not sufficient to ensure a level playing field

Effectiveness

- The Consultant concludes that the Directive was implemented in the Member States without major problems. Main problems encountered were difficulties in the interpretation of exemptions, legal uncertainty regarding minimum age, and problems with mutual recognition of completed and partial training undergone in another Member State. There is insufficient evidence to justify conclusions on fraud and abuse.

- The Directive did not contribute to the attractiveness of the sector by enhancing requirements for professional competence due to the additional training and financial burden, as well as the lack of prospect to receive a recognized diploma at the end of the training. But the provisions on minimum age of the Directive contributes to making the profession more attractive because of the improved link with other schooling.
- The Consultant concludes that the Directive in principle contributes to ensuring free movement of drivers within the EU road transport sector, but because of problems with recognition of partial and completed training undergone in a foreign country the Directive was only partial successful.
- The Directive contributed only marginally to defining standards of professional competence since Annex I fails to accommodate the individual needs of the drivers, its subject coverage has not been updated in the past decade, in most Member States there are no national syllabi in place to foster the definition of standards of professional competence, and an efficient and effective quality assurance system is missing.
- The Consultant concludes that, given the late implementation in terms of deadlines for periodic training, it is too early to assess whether the Directive has contributed to improving road safety on the basis of road accident statistics. On the basis of training and testing provisions and the content of Annex 1, which is not in line with the results of literature review on effects of training, the Consultant concludes that the Directive marginally improved road safety.
- The Consultant concludes that the Directive on the one hand has made training obligatory for all professional drivers in the EU, contributing to a level playing field. At the same time, due to differences in implementation of the Directive in the Member States, situations of non-level playing field have emerged. Given the calculated cost increase for enterprises of 0.1% to 0.2% of total transport costs, the Consultant concludes that the relative impact is limited.
- It can be concluded, that given the fact that before the Directive only 5% to 10% of drivers had any form of training and now almost all new C and D-licensed drivers need to have knowledge of topics such as social regulations and regulations on the carriage of goods and passengers, that the Directive contributed to better awareness of other rules in the field of road transport, including knowledge of the transport of dangerous goods. The conclusion refers to new drivers because they need to cover all topics of Annex 1, while periodic training does not have to cover all topics.
- Overall the Consultant concludes that the Directive was partial effective in reaching its objectives.

Coherence

- In light of the foregoing, Directive 2003/59/EC is partially in line with the provisions of Directive 2006/126/EC. Both Directives apply to professional drivers and share the common objective of improving road safety. Nevertheless, differences exists on the minimum age requirements for the entry to the profession, which gives rise to conflicting interpretations and applications by Member States. The content of the training of the two Directives also overlap with respect to certain subjects, which creates a degree of inefficiency in the training of professional drivers.



Utility

- Most of the provisions regarding vehicle technology of Annex 1 of the Directive are still relevant for driver training, although a revision is needed to update some technical issues (outdated brake systems, transmissions systems, EURO norms).
- It can be concluded that the provisions are still relevant, but need updating to take into account new technological developments, and instruction methods

Efficiency

- The costs increase related to the Directive is estimated at € 1,791 million per year or € 497 per driver per year.
- With regard to the proportionality of costs borne by the different stakeholders, it can be concluded that almost half of the costs are borne by enterprises (44%). Public administrations recover most of their costs through fees charged to enterprises and drivers. Costs for trainees (45%) seems particularly high for initial training and testing which may present a barrier to entry to the profession.
- The potential benefits of € 7,424 million to € 10,740 million per year in the form of reduced costs of traffic accidents, reduced fuel use and reduced emissions outweigh the costs related to the Directive. To realise the potential benefits, training needs to be focused on reduced fuel use and danger recognition.
- The Consultant concludes that costs are proportionate to the potential results in terms of quality level of professional competence.
- At company level, the potential savings described are limited to savings in fuel costs, and possibly some savings in insurance costs and maintenance because of fewer accidents. Savings in reduced fuel use are estimated at € 1,119 to € 1,905 per driver per year. This more than outweighs the compliance costs for enterprises of € 217 per driver per year. These savings can be achieved by all enterprises, regardless of size, and therefore also by SMEs.
- The Consultant concludes that other potentially relevant EU level initiatives would most likely not have reached the same level of efficiency as the Directive in terms of the level of professional competence, because these initiatives are less comprehensive (e.g., Directive 2005/36/EC), depend to a large extent on a voluntary steps of the competent authorities (e.g., the EQF), or do not (or only partially) cover topics relating to professional competence (e.g., Directive 2006/126/EC on driving licence).

EU added value

- The EU has a central role to play in the training of professional drivers since adopting relevant legislative measures regulating such training on EU level brought added values in terms of improved labour mobility, notwithstanding current problems with recognition of completed and partial periodic training, and harmonized training requirements across the Member States. It is necessary to regulate the training at EU level because if it was left at the discretion of the Member States, varying or no training requirements would have been introduced.

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Annex 2 Additional tables

Table 24 Absolute and relative fatality risk HGV

| | fatalities with HGV involved | | | vkm ran by HGV (billion vkm) | | | relative risk (fatalities/billion vkm) | | | |
|----|------------------------------|------|------|------------------------------|--------|--------|--|-------|-------|-------------------|
| | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | average 2008-2010 |
| BE | 122 | 117 | 111 | 18.79 | 18.84 | 18.50 | 6.49 | 6.21 | 6.00 | 14.61 |
| BG | | | | 1.18 | 1.01 | 0.97 | | | | |
| CZ | 169 | 163 | 175 | | | 8.13 | | | 21.53 | 8.13 |
| DK | 62 | 35 | 36 | | | | | | | |
| DE | 625 | 536 | 534 | | | | | | | |
| EE | 32 | 21 | | | | | | | | |
| IE | 44 | 22 | 13 | | | | | | | |
| ES | 452 | 353 | 333 | 28.96 | 26.30 | 24.55 | 15.61 | 13.42 | 13.56 | 22.15 |
| GR | 138 | 113 | 127 | | | | | | | |
| FR | 596 | 502 | 552 | | 114.84 | 118.99 | | 4.37 | 4.64 | 116.92 |
| IT | 977 | 785 | 835 | | | | | | | |
| CY | | | | 2.28 | | | | | | |
| LV | 46 | 38 | 41 | | | | | | | |
| LT | | | | 1.97 | 1.66 | 1.70 | | | | |
| LU | 2 | 2 | 9 | | | | | | | |
| HU | 173 | 118 | 144 | 11.45 | 8.26 | | 15.11 | 14.29 | | 11.68 |
| NL | 107 | 95 | | | | | | | | |
| AT | 107 | 81 | 97 | 11.14 | 10.90 | 11.14 | 9.61 | 7.43 | 8.71 | 10.55 |
| PL | 1155 | 952 | 947 | 29.74 | 29.82 | 33.64 | 38.83 | 31.92 | 28.15 | 34.10 |
| PT | 112 | 120 | 95 | | | | | | | |
| RO | 292 | 252 | 191 | | | | | | | |
| SI | 7 | 12 | 7 | 2.00 | 1.86 | 1.90 | 3.51 | 6.44 | 3.69 | 2.42 |
| SK | 141 | 69 | 106 | 1.18 | | | 119.36 | | | |
| FI | 106 | 70 | 92 | 7.12 | 6.82 | 6.99 | 14.90 | 10.26 | 13.16 | 9.57 |
| SE | 72 | 45 | | 11.50 | 11.56 | 11.65 | 6.26 | 3.89 | | 9.82 |
| UK | 380 | 287 | 282 | 31.15 | 26.36 | 26.45 | 12.20 | 10.89 | 10.66 | 21.67 |



Table 25 Relative risk (HGV occupant fatalities per billion vehicle kilometers)

| relative risk | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|----------------|------|------|------|------|------|-------|------|------|------|------|
| Belgium | 0.07 | 0.48 | 0.17 | 0.21 | 0.60 | 0.85 | 0.53 | 0.22 | | |
| Czech Republic | | 3.07 | 2.87 | | | | | 3.32 | | |
| Estonia | | | 4.71 | 3.73 | 1.86 | | | | | |
| Spain | | | | | 1.27 | 1.62 | 1.37 | 1.47 | 1.88 | 1.10 |
| France | | | | | | | 0.26 | 0.27 | 0.34 | |
| Hungary | | | | | | 1.48 | 0.85 | | | |
| Austria | 2.12 | 2.32 | 1.37 | 1.96 | 1.01 | 0.18 | 0.37 | 0.27 | 0.44 | |
| Poland | | | | | | 5.88 | 4.56 | 4.22 | 3.92 | |
| Romania | | | | | | | | | 2.21 | 1.60 |
| Slovenia | 0.00 | 0.00 | 0.00 | 0.00 | 1.04 | 0.00 | 0.00 | 0.00 | | |
| Slovakia | | | | | | 15.24 | | | | |
| Finland | 1.36 | 0.30 | 0.87 | 1.01 | 0.98 | 0.70 | 0.88 | 1.29 | 0.70 | |
| Sweden | 0.61 | 0.50 | 0.58 | 0.65 | 0.53 | 0.43 | 0.26 | | | |
| United Kingdom | 1.61 | 1.60 | 1.96 | 1.36 | 1.77 | 0.77 | 0.57 | 1.13 | 0.30 | 0.33 |

Table 26 Relative risk for LGV<3.5 tonnes (fatalities in LGV<3.5 tonnes only)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Average 2008-2010 |
|-------------------|------|------|------|--------|-------|-------|-------------------|
| FR | | | | 1.46 | 1.56 | 1.61 | 1.54 |
| LV | 3.92 | 2.25 | | 2.06 | 4.88 | | 3.47 |
| NL | 1.11 | 1.21 | 1.98 | 1.71 | 1.37 | | 1.54 |
| RO ²⁶⁹ | | | | 109.43 | 98.86 | 80.84 | 96.38 |
| FI | | | | 2.35 | 2.59 | 2.33 | 2.42 |
| UK | 0.91 | 0.84 | 0.92 | 0.69 | 0.60 | 0.57 | 0.62 |

²⁶⁹ We do not have an explanation for the significantly higher relative risk rate in Romania. A possibility would be that a different registration of vans vs LGV (<3.5 tonnes) is behind this difference.

Table 27 Relative risk for HGV>3.5 tonnes (fatalities in HGV>3.5 tonnes only)

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Average 2008-2010 |
|----|------|------|------|------|------|------|------|------|-------------------|
| BE | 1.07 | 1.24 | 0.88 | 0.84 | 1.25 | 1.33 | 1.06 | 0.70 | 1.03 |
| CZ | | 3.07 | 2.87 | | | | | 3.32 | 3.32 |
| EE | | | 4.71 | 3.73 | 1.86 | | | | |
| ES | | | | | 2.80 | 2.93 | 2.62 | 2.89 | 2.82 |
| FR | | | | | | | 0.47 | 0.55 | 0.51 |
| HU | | | | | | 1.92 | 1.45 | | 1.69 |
| AT | 3.30 | 4.87 | 2.51 | 3.27 | 2.23 | 0.27 | 0.83 | 0.63 | 0.57 |
| PL | | | | | | 5.88 | 4.56 | 4.22 | 4.89 |
| SI | 0.00 | 2.83 | 1.95 | 1.20 | 2.09 | 0.00 | 0.00 | 0.53 | 0.18 |
| FI | 1.36 | 0.30 | 0.87 | 1.01 | 0.98 | 0.70 | 0.88 | 1.29 | 0.96 |
| SE | 0.61 | 0.50 | 0.58 | 0.65 | 0.53 | 0.43 | 0.26 | | 0.35 |
| UK | 1.61 | 1.60 | 1.96 | 1.36 | 1.77 | 0.77 | 0.57 | 1.10 | 0.81 |

Table 28 Relative risk 2003-2010 (HGV, fatalities/billion vkm)

| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----|-------|-------|-------|-------|-------|--------|-------|-------|
| BE | 9.68 | 9.83 | 8.90 | 6.95 | 7.78 | 6.49 | 6.21 | 6.00 |
| CZ | | 24.63 | 26.48 | | | | | 21.53 |
| EE | | | 33.67 | 23.01 | 21.67 | | | |
| ES | | | | | 16.40 | 15.61 | 13.42 | 13.56 |
| FR | | | | | | | 4.37 | 4.64 |
| HU | | | | | | 15.11 | 14.29 | |
| AT | 32.99 | 33.41 | 28.75 | 26.17 | 18.01 | 9.61 | 7.43 | 8.71 |
| PL | | | | | | 38.83 | 31.92 | 28.15 |
| SI | 8.63 | 14.87 | 13.62 | 2.40 | 10.45 | 3.51 | 6.44 | 3.69 |
| SK | | | | | | 119.36 | | |
| FI | 14.62 | 15.79 | 13.38 | 11.78 | 13.64 | 14.90 | 10.26 | 13.16 |
| SE | 9.41 | 5.86 | 5.85 | 7.73 | 8.09 | 6.26 | 3.89 | |
| UK | 19.24 | 16.28 | 16.95 | 14.36 | 14.74 | 12.20 | 10.89 | 10.66 |



Table 29 Relative risk (fatalities/billion vkm, busses and coaches)

| | Fatalities with HGV involved | | | Vkm ran by HGV (billion vkm) | | | Relative risk (fatalities/billion vkm) | | | |
|----|------------------------------|------|------|------------------------------|------|------|--|-------|-------|-------------------|
| | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | 2008 | 2009 | 2010 | average 2008-2010 |
| BE | 23 | 22 | 17 | 0.82 | 0.83 | 0.77 | 28.05 | 26.51 | 22.08 | 25.54 |
| BG | | | | 0.52 | 0.47 | 0.49 | | | | |
| CZ | 27 | 28 | 20 | | | 0.47 | | | | |
| DK | 10 | 9 | 13 | | | | | | | |
| DE | 75 | 66 | 91 | | | | | | | |
| EE | 4 | 4 | | | | | | | | |
| IE | 10 | 7 | 7 | | | | | | | |
| ES | 33 | 33 | 31 | | | | | | | |
| GR | 81 | 69 | 51 | 2.51 | 2.24 | 2.19 | 32.34 | 30.84 | 23.25 | 28.81 |
| FR | 80 | 66 | 60 | | 3.32 | 3.40 | | 19.87 | 17.66 | 18.76 |
| IT | 102 | 71 | 79 | | | | | | | |
| CY | | | | 0.14 | | | | | | |
| LV | 10 | 8 | 11 | | | | | | | |
| LT | | | | 0.52 | 0.09 | 0.44 | | | | |
| LU | 1 | 2 | 1 | | | | | | | |
| HU | 33 | 39 | 41 | 0.66 | 0.66 | | 49.78 | 58.82 | | 54.30 |
| NL | 14 | 14 | | | | | | | | |
| AT | 8 | 15 | 17 | 0.51 | 0.47 | 0.51 | 15.78 | 32.05 | 33.40 | 27.08 |
| PL | 142 | 128 | 119 | 2.70 | 2.25 | 2.17 | 52.53 | 56.79 | 54.74 | 54.69 |
| PT | 21 | 15 | 21 | | | | | | | |
| RO | 100 | 123 | 89 | | | | | | | |
| SI | 4 | 8 | 3 | 0.14 | 0.15 | 0.15 | 27.97 | 54.79 | 20.69 | 34.49 |
| SK | 15 | 35 | 18 | | | | | | | |
| FI | 13 | 8 | 9 | 0.58 | 0.58 | 0.58 | 22.41 | 13.79 | 15.52 | 17.24 |
| SE | 13 | 17 | | 0.85 | 0.85 | 0.86 | 15.26 | 19.95 | | 17.61 |
| UK | 121 | 102 | 85 | 5.24 | 5.15 | 5.18 | 23.08 | 19.80 | 16.42 | 19.77 |

Table 30 Total number of fatalities with HGV involved

| Fatalities with HGV involved | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------------------|------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| BE | 193 | 178 | 136 | 143 | 161 | 133 | 156 | 122 | 117 | 111 |
| CZ | 222 | 234 | 241 | 257 | 240 | 215 | 220 | 169 | 163 | 175 |
| DK | 78 | 80 | 69 | 65 | 79 | 49 | 66 | 62 | 35 | 36 |
| DE | 824 | 836 | 815 | 738 | 684 | 719 | 687 | 625 | 536 | 534 |
| IE | 70 | 42 | 54 | 55 | 51 | 57 | 40 | 44 | 22 | 13 |
| EL | 220 | 219 | 217 | 181 | 158 | 167 | 141 | 138 | 113 | 127 |
| ES | 803 | 860 | 834 | 766 | 714 | 659 | 528 | 452 | 353 | 333 |
| FR | 1057 | 988 | 758 | 727 | 726 | 683 | 658 | 596 | 502 | 552 |
| IT | 1412 | 1438 | 1312 | 1244 | 1174 | 1140 | 1017 | 977 | 785 | 835 |
| LU | 6 | 12 | 9 | 6 | 4 | 7 | 7 | 2 | 2 | 9 |
| NL ²⁷⁰ | 169 | 129 | 158 | 137 | 103 | 129 | 123 | 107 | 95 | 95 |
| AT | 122 | 143 | 140 | 144 | 126 | 120 | 89 | 107 | 81 | 97 |
| PL | 1443 | 1474 | 1462 | 1487 | 1425 | 1374 | 1246 | 1155 | 952 | 947 |
| PT | 197 | 214 | 213 | 187 | 163 | 130 | 145 | 112 | 120 | 95 |
| RO | 193 | 191 | 224 | 207 | 297 | 263 | 271 | 292 | 252 | 191 |
| SI | 15 | 19 | 11 | 21 | 21 | 4 | 20 | 7 | 12 | 7 |
| FI | 118 | 108 | 97 | 107 | 92 | 82 | 97 | 106 | 70 | 92 |
| SE ²⁷¹ | 118 | 135 | 92 | 59 | 61 | 83 | 92 | 72 | 45 | 45 |
| UK | 607 | 561 | 548 | 478 | 510 | 434 | 449 | 380 | 287 | 282 |
| EU-19 | 7867 | 7861 | 7390 | 7009 | 6789 | 6448 | 6052 | 5525 | 4542 | 4576 |
| % reduced | | -0.08% | -5.99% | -5.16% | -3.14% | -5.02% | -6.14% | -8.71% | -17.79% | 0.75% |
| CY ²⁷² | | | | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| EE ²⁷³ | | | | | 50 | 37 | 35 | 32 | 21 | 21 |
| HU | | | 115 | 264 | 251 | 239 | 218 | 173 | 188 | 144 |
| MT | | | | | 0 | 1 | 0 | 1 | 0 | 1 |
| LV | | | | 85 | 81 | 81 | 97 | 46 | 38 | 41 |
| SK | | | | | 134 | 122 | 144 | 141 | 69 | 106 |
| EU-25 | | | | | 7324 | 6947 | 6565 | 5937 | 4877 | 4908 |
| % reduced | | | | | | -5.15% | -5.50% | -9.57% | -17.85% | 0.64% |

²⁷⁰ The Netherlands: Missing data for 2010, data from 2009 was used.

²⁷¹ Sweden: Missing data for 2010, data from 2009 was used.

²⁷² Cyprus: no data available. We assume that a similar portion of fatalities with HGV compared to the EU19 can be used as with the overall accident statistics.

²⁷³ Estonia: Missing data for 2010, data from 2009 was used.



Table 31 Relative % of accidents with HGV involved (compared to total number of fatalities)

| % Fatalities with HGV involved | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| BE | 12.99% | 13.63% | 11.21% | 12.31% | 14.78% | 12.44% | 14.57% | 12.92% | 12.39% | 13.21% |
| CZ | 16.65% | 16.36% | 16.66% | 18.60% | 18.66% | 20.23% | 18.02% | 15.71% | 18.09% | 21.82% |
| DK | 18.10% | 17.28% | 15.97% | 17.62% | 23.87% | 16.01% | 16.26% | 15.27% | 11.55% | 14.12% |
| DE | 11.81% | 12.22% | 12.32% | 12.63% | 12.76% | 14.12% | 13.88% | 13.96% | 12.91% | 14.64% |
| IE | 16.99% | 11.11% | 16.02% | 14.59% | 12.75% | 15.62% | 11.83% | 15.71% | 9.24% | 6.13% |
| EL | 11.70% | 13.40% | 13.52% | 10.84% | 9.53% | 10.08% | 8.75% | 8.89% | 7.76% | 10.10% |
| ES | 14.56% | 16.08% | 15.44% | 16.16% | 16.07% | 16.06% | 13.81% | 14.59% | 13.01% | 13.43% |
| FR | 12.95% | 12.91% | 12.51% | 13.15% | 13.65% | 14.50% | 14.24% | 13.94% | 11.75% | 13.83% |
| IT | 19.90% | 20.60% | 19.99% | 20.32% | 20.18% | 20.11% | 19.82% | 20.68% | 18.53% | 20.42% |
| LU | 8.57% | 19.35% | 16.98% | 12.00% | 8.51% | 16.28% | 15.22% | 5.71% | 4.17% | 28.13% |
| NL | 17.02% | 13.07% | 15.37% | 17.04% | 13.73% | 17.67% | 17.35% | 15.81% | 14.75% | 14.75% |
| AT | 12.73% | 14.96% | 15.04% | 16.40% | 16.41% | 16.44% | 12.88% | 15.76% | 12.80% | 17.57% |
| PL | 26.08% | 25.30% | 25.91% | 26.03% | 26.18% | 26.21% | 22.32% | 21.24% | 20.82% | 24.23% |
| PT | 11.79% | 12.78% | 13.78% | 14.45% | 13.07% | 13.42% | 14.89% | 12.66% | 14.29% | 10.14% |
| RO | 7.88% | 7.92% | 10.05% | 8.47% | 11.30% | 10.17% | 9.68% | 9.53% | 9.01% | 8.04% |
| SI | 5.40% | 7.06% | 4.55% | 7.66% | 8.14% | 1.53% | 6.83% | 3.27% | 7.02% | 5.07% |
| FI | 27.25% | 26.02% | 25.59% | 28.53% | 24.27% | 24.40% | 25.53% | 30.81% | 25.09% | 33.82% |
| SE | 20.24% | 24.11% | 17.39% | 12.29% | 13.86% | 18.65% | 19.53% | 18.14% | 12.57% | 12.57% |
| UK | 16.87% | 15.67% | 14.98% | 14.19% | 15.29% | 13.16% | 14.69% | 14.37% | 12.28% | 14.35% |
| EU-19 | 15.78% | 16.12% | 16.10% | 16.35% | 16.56% | 16.67% | 15.85% | 15.69% | 14.24% | 15.91% |
| CY | | | | 16.24% | 16.24% | 16.24% | 16.24% | 16.24% | 16.24% | 16.24% |
| EE | | | | | 29.41% | 18.14% | 17.86% | 24.24% | 21.43% | 21.43% |
| HU | | | 8.67% | 20.37% | 19.64% | 18.34% | 17.69% | 17.37% | 22.87% | 19.46% |
| MT | | | | | 0.00% | 9.09% | 0.00% | 11.11% | 0.00% | 7.69% |
| LV | | | | 16.47% | 18.33% | 19.90% | 23.15% | 14.56% | 14.96% | 18.81% |
| SK | | | | | 22.11% | 19.87% | 21.79% | 23.27% | 17.97% | 28.57% |
| EU-25 | | | | | 16.79% | 16.81% | 16.09% | 15.88% | 14.52% | 16.19% |



Table 32 Total reduction percentage of fatalities with HGV involved (2001-2010)

| Total reduction rate of fatalities with HGV involved <small>274</small> | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| BE | 92.23% | 70.47% | 74.09% | 83.42% | 68.91% | 80.83% | 63.21% | 60.62% | 57.51% |
| CZ | 105.41% | 108.56% | 115.77% | 108.11% | 96.85% | 99.10% | 76.13% | 73.42% | 78.83% |
| DK | 102.56% | 88.46% | 83.33% | 101.28% | 62.82% | 84.62% | 79.49% | 44.87% | 46.15% |
| DE | 101.46% | 98.91% | 89.56% | 83.01% | 87.26% | 83.37% | 75.85% | 65.05% | 64.81% |
| IE | 60.00% | 77.14% | 78.57% | 72.86% | 81.43% | 57.14% | 62.86% | 31.43% | 18.57% |
| EL | 99.55% | 98.64% | 82.27% | 71.82% | 75.91% | 64.09% | 62.73% | 51.36% | 57.73% |
| ES | 107.10% | 103.86% | 95.39% | 88.92% | 82.07% | 65.75% | 56.29% | 43.96% | 41.47% |
| FR | 93.47% | 71.71% | 68.78% | 68.68% | 64.62% | 62.25% | 56.39% | 47.49% | 52.22% |
| IT | 101.84% | 92.92% | 88.10% | 83.14% | 80.74% | 72.03% | 69.19% | 55.59% | 59.14% |
| LU | 200.00% | 150.00% | 100.00% | 66.67% | 116.67% | 116.67% | 33.33% | 33.33% | 150.00% |
| NL | 76.33% | 93.49% | 81.07% | 60.95% | 76.33% | 72.78% | 63.31% | 56.21% | 56.21% |
| AT | 117.21% | 114.75% | 118.03% | 103.28% | 98.36% | 72.95% | 87.70% | 66.39% | 79.51% |
| PL | 102.15% | 101.32% | 103.05% | 98.75% | 95.22% | 86.35% | 80.04% | 65.97% | 65.63% |
| PT | 108.63% | 108.12% | 94.92% | 82.74% | 65.99% | 73.60% | 56.85% | 60.91% | 48.22% |
| RO | 98.96% | 116.06% | 107.25% | 153.89% | 136.27% | 140.41% | 151.30% | 130.57% | 98.96% |
| SI | 126.67% | 73.33% | 140.00% | 140.00% | 26.67% | 133.33% | 46.67% | 80.00% | 46.67% |
| FI | 91.53% | 82.20% | 90.68% | 77.97% | 69.49% | 82.20% | 89.83% | 59.32% | 77.97% |
| SE | 114.41% | 77.97% | 50.00% | 51.69% | 70.34% | 77.97% | 61.02% | 38.14% | 38.14% |
| UK | 92.42% | 90.28% | 78.75% | 84.02% | 71.50% | 73.97% | 62.60% | 47.28% | 46.46% |
| EU-19 | 7861 | 7390 | 7009 | 6789 | 6448 | 6052 | 5525 | 4542 | 4576 |
| % reduced | 99.92% | 93.94% | 89.09% | 86.30% | 81.96% | 76.93% | 70.23% | 57.73% | 58.17% |

²⁷⁴ Base year = 2001, no information for Cyprus, Estonia, Hungary, Malta, Latvia and Slovakia as a result of missing data (2001).



Table 33 Yearly relative reductions for fatalities from accidents with HGV involved

| Yearly reduction rate of fatalities with HGV involved | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---------|--------|---------|--------|--------|---------|---------|---------|---------|
| BE | -7.77% | - | 5.15% | 12.59% | - | 17.29% | -21.79% | -4.10% | -5.13% |
| CZ | 5.41% | 2.99% | 6.64% | -6.61% | 10.42% | 2.33% | -23.18% | -3.55% | 7.36% |
| DK | 2.56% | - | -5.80% | 21.54% | - | 34.69% | -6.06% | -43.55% | 2.86% |
| DE | 1.46% | -2.51% | -9.45% | -7.32% | 5.12% | -4.45% | -9.02% | -14.24% | -0.37% |
| IE | -40.00% | 28.57% | 1.85% | -7.27% | 11.76% | -29.82% | 10.00% | -50.00% | -40.91% |
| EL | -0.45% | -0.91% | -16.59% | - | 5.70% | -15.57% | -2.13% | -18.12% | 12.39% |
| ES | 7.10% | -3.02% | -8.15% | -6.79% | -7.70% | -19.88% | -14.39% | -21.90% | -5.67% |
| FR | -6.53% | - | -4.09% | -0.14% | -5.92% | -3.66% | -9.42% | -15.77% | 9.96% |
| IT | 1.84% | -8.76% | -5.18% | -5.63% | -2.90% | -10.79% | -3.93% | -19.65% | 6.37% |
| LU | 100.00% | - | -33.33% | - | 75.00% | 0.00% | -71.43% | 0.00% | 350.00% |
| NL | -23.67% | 22.48% | -13.29% | - | 25.24% | -4.65% | -13.01% | -11.21% | |
| AT | 17.21% | -2.10% | 2.86% | - | -4.76% | -25.83% | 20.22% | -24.30% | 19.75% |
| PL | 2.15% | -0.81% | 1.71% | -4.17% | -3.58% | -9.32% | -7.30% | -17.58% | -0.53% |
| PT | 8.63% | -0.47% | -12.21% | - | - | 11.54% | -22.76% | 7.14% | -20.83% |
| RO | -1.04% | 17.28% | -7.59% | 43.48% | - | 3.04% | 7.75% | -13.70% | -24.21% |
| SI | 26.67% | - | 90.91% | 0.00% | - | 400.00% | -65.00% | 71.43% | -41.67% |
| FI | -8.47% | - | 10.31% | - | - | 18.29% | 9.28% | -33.96% | 31.43% |
| SE | 14.41% | 10.19% | -35.87% | 3.39% | 36.07% | 10.84% | -21.74% | -37.50% | |
| UK | -7.58% | 31.85% | -12.77% | 6.69% | - | 3.46% | -15.37% | -24.47% | -1.74% |
| EU-19 | 7861 | 7390 | 7009 | 6789 | 6448 | 6052 | 5525 | 4542 | 4576 |
| % reduced | -0.08% | -5.99% | -5.16% | -3.14% | -5.02% | -6.14% | -8.71% | -17.79% | 0.75% |
| CY | | | | | | | | | |
| EE | | | | | - | -5.41% | -8.57% | -34.38% | |
| HU | | | 129.57% | -4.92% | -4.78% | -8.79% | -20.64% | 8.67% | -23.40% |
| MT | | | | | + | -100% | + | -100% | + |
| LV | | | | -4.71% | 0.00% | 19.75% | -52.58% | -17.39% | 7.89% |
| SK | | | | | -8.96% | 18.03% | -2.08% | -51.06% | 53.62% |
| EU-25 | | | | 7324 | 6947 | 6565 | 5937 | 4877 | 4908 |
| % reduced | | | | | -5.15% | -5.50% | -9.57% | -17.85% | 0.64% |



Table 34 Total number of fatalities from accidents with busses and coaches involved

| Fatalities with busses & coaches | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------------------------|------|---------|-------|--------|--------|--------|--------|---------|--------|--------|
| BE | 29 | 31 | 29 | 31 | 19 | 31 | 30 | 23 | 22 | 17 |
| CZ | 44 | 42 | 68 | 49 | 31 | 34 | 35 | 27 | 28 | 20 |
| DK | 14 | 22 | 26 | 15 | 11 | 14 | 20 | 10 | 9 | 13 |
| DE | 137 | 117 | 110 | 105 | 108 | 86 | 94 | 75 | 66 | 91 |
| IE | 9 | 8 | 2 | 17 | 11 | 11 | 7 | 10 | 7 | 7 |
| EL | 59 | 60 | 94 | 48 | 53 | 36 | 35 | 33 | 33 | 31 |
| ES | 135 | 109 | 126 | 80 | 108 | 102 | 73 | 81 | 69 | 51 |
| FR | 117 | 109 | 97 | 99 | 91 | 76 | 110 | 80 | 66 | 60 |
| IT | 122 | 107 | 131 | 136 | 108 | 116 | 91 | 102 | 71 | 79 |
| LU | 6 | 4 | 1 | 2 | 2 | 0 | 0 | 1 | 2 | 1 |
| NL ²⁷⁵ | 27 | 21 | 21 | 15 | 18 | 14 | 15 | 14 | 14 | 14 |
| AT | 33 | 17 | 20 | 24 | 10 | 19 | 17 | 8 | 15 | 17 |
| PL | 251 | 216 | 246 | 247 | 252 | 174 | 148 | 142 | 128 | 119 |
| PT ²⁷⁶ | 66 | 51 | 26 | 41 | 23 | 13 | 33 | 21 | 15 | 21 |
| RO | 52 | 113 | 86 | 102 | 120 | 117 | 132 | 100 | 123 | 89 |
| SI | 6 | 4 | 12 | 12 | 8 | 2 | 2 | 4 | 8 | 3 |
| FI | 28 | 17 | 13 | 29 | 13 | 19 | 13 | 13 | 8 | 9 |
| SE ²⁷⁷ | 32 | 29 | 33 | 16 | 13 | 36 | 15 | 13 | 17 | 17 |
| UK | 215 | 165 | 160 | 154 | 140 | 164 | 151 | 121 | 102 | 85 |
| EU-19 | 1382 | 1242 | 1301 | 1222 | 1139 | 1064 | 1021 | 878 | 803 | 744 |
| | | -10.13% | 4.75% | -6.07% | -6.79% | -6.58% | -4.04% | -14.01% | -8.54% | -7.35% |
| CY ²⁷⁸ | | | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| EE ²⁷⁹ | | | | | 7 | 13 | 7 | 4 | 4 | 4 |
| HU | | | 71 | 58 | 62 | 64 | 48 | 33 | 39 | 41 |
| MT | | | | | 1 | 0 | 1 | 3 | 0 | 1 |
| LV | | | | 30 | 27 | 16 | 16 | 10 | 8 | 11 |
| SK | | | | | 35 | 35 | 39 | 15 | 35 | 18 |
| EU-25 | | | | | 1274 | 1195 | 1135 | 946 | 892 | 822 |
| | | | | | | -6.20% | -5.02% | -16.65% | -5.71% | -7.85% |
| NO | | | | | | | | | | 7 |

²⁷⁵ The Netherlands: Missing data for 2010, data from 2009 was used.

²⁷⁶ Portugal: Buses, minibuses, coaches and trolleys are grouped together from 2010 onwards.

²⁷⁷ Sweden: Missing data for 2010, data from 2009 was used.

²⁷⁸ Cyprus: no data available. We assume that a similar portion of fatalities with buses and coaches compared to the EU19 can be used as with the overall accident statistics.

²⁷⁹ Estonia: Missing data for 2010, data from 2009 was used.



Table 35 Relative percentage of fatalities from accidents with busses and coaches involved

| % Fatalities with busses & coaches involved | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| BE | 1.95% | 2.37% | 2.39% | 2.67% | 1.74% | 2.90% | 2.80% | 2.44% | 2.33% | 2.02% |
| CZ | 3.30% | 2.94% | 4.70% | 3.55% | 2.41% | 3.20% | 2.87% | 2.51% | 3.11% | 2.49% |
| DK | 3.25% | 4.75% | 6.02% | 4.07% | 3.32% | 4.58% | 4.93% | 2.46% | 2.97% | 5.10% |
| DE | 1.96% | 1.71% | 1.66% | 1.80% | 2.01% | 1.69% | 1.90% | 1.68% | 1.59% | 2.49% |
| IE | 2.18% | 2.12% | 0.59% | 4.51% | 2.75% | 3.01% | 2.07% | 3.57% | 2.94% | 3.30% |
| EL | 3.14% | 3.67% | 5.86% | 2.87% | 3.20% | 2.17% | 2.17% | 2.12% | 2.27% | 2.46% |
| ES | 2.45% | 2.04% | 2.33% | 1.69% | 2.43% | 2.49% | 1.91% | 2.61% | 2.54% | 2.06% |
| FR | 1.43% | 1.42% | 1.60% | 1.79% | 1.71% | 1.61% | 2.38% | 1.87% | 1.54% | 1.50% |
| IT | 1.72% | 1.53% | 2.00% | 2.22% | 1.86% | 2.05% | 1.77% | 2.16% | 1.68% | 1.93% |
| LU | 8.57% | 6.45% | 1.89% | 4.00% | 4.26% | 0.00% | 0.00% | 2.86% | 4.17% | 3.13% |
| NL | 2.72% | 2.13% | 2.04% | 1.87% | 2.40% | 1.92% | 2.12% | 2.07% | 2.17% | 2.17% |
| AT | 3.44% | 1.78% | 2.15% | 2.73% | 1.30% | 2.60% | 2.46% | 1.18% | 2.37% | 3.08% |
| PL | 4.54% | 3.71% | 4.36% | 4.32% | 4.63% | 3.32% | 2.65% | 2.61% | 2.80% | 3.05% |
| PT | 3.95% | 3.04% | 1.68% | 3.17% | 1.84% | 1.34% | 3.39% | 2.37% | 1.79% | 2.24% |
| RO | 2.12% | 4.69% | 3.86% | 4.17% | 4.56% | 4.52% | 4.71% | 3.26% | 4.40% | 3.74% |
| SI | 2.16% | 1.49% | 4.96% | 4.38% | 3.10% | 0.76% | 0.68% | 1.87% | 4.68% | 2.17% |
| FI | 6.47% | 4.10% | 3.43% | 7.73% | 3.43% | 5.65% | 3.42% | 3.78% | 2.87% | 3.31% |
| SE | 5.49% | 5.18% | 6.24% | 3.33% | 2.95% | 8.09% | 3.18% | 3.27% | 4.75% | 4.75% |
| UK | 5.98% | 4.61% | 4.37% | 4.57% | 4.20% | 4.97% | 4.94% | 4.57% | 4.36% | 4.33% |
| EU-19 | 2.77% | 2.55% | 2.83% | 2.85% | 2.78% | 2.75% | 2.67% | 2.49% | 2.52% | 2.59% |
| CY | | | | 2.56% | 2.56% | 2.56% | 2.56% | 2.56% | 2.56% | 2.56% |
| EE | | | | | 4.12% | 6.37% | 3.57% | 3.03% | 4.08% | 4.08% |
| HU | | | 5.35% | 4.48% | 4.85% | 4.91% | 3.90% | 3.31% | 4.74% | 5.54% |
| MT | | | | | 5.88% | 0.00% | 8.33% | 33.33% | 0.00% | 7.69% |
| LV | | | | 5.81% | 6.11% | 3.93% | 3.82% | 3.16% | 3.15% | 5.05% |
| SK | | | | | 5.78% | 5.70% | 5.90% | 2.48% | 9.11% | 4.85% |
| EU-25 | | | | | 2.92% | 2.89% | 2.78% | 2.53% | 2.66% | 2.71% |



Table 36 Total reduction percentage of fatalities with busses & coaches involved (2001-2010)

| Total reduction rate of fatalities with HGV involved ²⁸⁰ | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| BE | 6.90% | 0.00% | 6.90% | -34.48% | 6.90% | 3.45% | -20.69% | -24.14% | - |
| CZ | -4.55% | 54.55% | 11.36% | -29.55% | -22.73% | -20.45% | -38.64% | -36.36% | 41.38% |
| DK | 57.14% | 85.71% | 7.14% | -21.43% | 0.00% | 42.86% | -28.57% | -35.71% | - |
| DE | -14.60% | -19.71% | -23.36% | -21.17% | -37.23% | -31.39% | -45.26% | -51.82% | 54.55% |
| IE | -11.11% | -77.78% | 88.89% | 22.22% | 22.22% | -22.22% | 11.11% | -22.22% | -7.14% |
| EL | 1.69% | 59.32% | -18.64% | -10.17% | -38.98% | -40.68% | -44.07% | -44.07% | - |
| ES | -19.26% | -6.67% | -40.74% | -20.00% | -24.44% | -45.93% | -40.00% | -48.89% | 33.58% |
| FR | -6.84% | -17.09% | -15.38% | -22.22% | -35.04% | -5.98% | -31.62% | -43.59% | - |
| IT | -12.30% | 7.38% | 11.48% | -11.48% | -4.92% | -25.41% | -16.39% | -41.80% | 48.72% |
| LU | -33.33% | -83.33% | -66.67% | -66.67% | - | - | -83.33% | -66.67% | - |
| NL | -22.22% | -22.22% | -44.44% | -33.33% | -48.15% | -44.44% | -48.15% | -48.15% | 83.33% |
| AT | -48.48% | -39.39% | -27.27% | -69.70% | -42.42% | -48.48% | -75.76% | -54.55% | - |
| PL | -13.94% | -1.99% | -1.59% | 0.40% | -30.68% | -41.04% | -43.43% | -49.00% | 48.48% |
| PT | -22.73% | -60.61% | -37.88% | -65.15% | -80.30% | -50.00% | -68.18% | -77.27% | - |
| RO | 117.31% | 65.38% | 96.15% | 130.77% | 125.00% | 153.85% | 92.31% | 136.54% | 52.59% |
| SI | -33.33% | 100.00% | 100.00% | 33.33% | -66.67% | -66.67% | -33.33% | 33.33% | - |
| FI | -39.29% | -53.57% | 3.57% | -53.57% | -32.14% | -53.57% | -53.57% | -71.43% | 50.00% |
| SE | -9.38% | 3.13% | -50.00% | -59.38% | 12.50% | -53.13% | -59.38% | -46.88% | - |
| UK | -23.26% | -25.58% | -28.37% | -34.88% | -23.72% | -29.77% | -43.72% | -52.56% | 67.86% |
| EU-19 | 1242 | 1301 | 1222 | 1139 | 1064 | 1021 | 878 | 803 | - |
| | -10.13% | -5.86% | -11.58% | -17.58% | -23.01% | -26.12% | -36.47% | -41.90% | 60.47% |
| | | | | | | | | | 46.16% |

²⁸⁰ Base year = 2001, no information for Cyprus, Estonia, Hungary, Malta, Latvia and Slovakia as a result of missing data (2001).



Table 37 Share of age group in total working population (in sector NACE 49 "Land transport and transport via pipelines") - evolution over time

| Region - age group | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| EU28 ²⁸¹ - 15 to 24 years | 5.82% | 5.45% | 5.24% | 5.14% | 5.13% | 5.25% | 5.34% | 4.78% | 4.38% | 4.57% | 4.15% |
| EU28 - 25 to 49 years | 69.68% | 69.60% | 69.94% | 68.95% | 68.89% | 67.76% | 66.88% | 66.18% | 65.50% | 64.46% | 63.97% |
| EU28 - 50 to 64 years | 24.50% | 24.95% | 24.82% | 25.91% | 25.97% | 26.99% | 27.78% | 29.04% | 30.11% | 30.97% | 31.88% |
| EU15 - 15 to 24 years | 5.81% | 5.70% | 5.75% | 5.38% | 5.39% | 5.56% | 5.43% | 4.84% | 4.60% | 4.76% | 4.28% |
| EU15 - 25 to 49 years | 68.32% | 68.18% | 68.15% | 67.69% | 67.82% | 66.52% | 65.83% | 65.09% | 64.35% | 63.34% | 62.79% |
| EU15 - 50 to 64 years | 25.87% | 26.12% | 26.09% | 26.93% | 26.80% | 27.92% | 28.75% | 30.07% | 31.05% | 31.90% | 32.93% |

Table 38 Tonnes of CO₂ per million Vehicle Kilometres by member state and over time

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|-------------|------|------|------|------|------|------|------|------|------|
| AT | 598 | 592 | 586 | 581 | 563 | 549 | 538 | 529 | 521 |
| BE | 705 | 697 | 690 | 682 | 666 | 652 | 642 | 634 | 626 |
| BG | 621 | 613 | 605 | 597 | 587 | 577 | 569 | 561 | 544 |
| CY | 650 | 638 | 631 | 624 | 621 | 616 | 613 | 609 | 606 |
| CZ | 639 | 628 | 616 | 601 | 593 | 584 | 575 | 566 | 555 |
| DE | 590 | 584 | 579 | 573 | 566 | 553 | 542 | 532 | 524 |
| DK | 631 | 622 | 614 | 604 | 594 | 586 | 579 | 574 | 568 |
| EE | 547 | 543 | 536 | 529 | 527 | 525 | 522 | 519 | 515 |
| ES | 626 | 619 | 612 | 602 | 597 | 589 | 583 | 577 | 573 |
| FI | 597 | 593 | 589 | 586 | 583 | 580 | 577 | 575 | 571 |
| FR | 583 | 577 | 572 | 567 | 561 | 549 | 538 | 529 | 521 |
| GR | 613 | 607 | 601 | 596 | 594 | 591 | 589 | 586 | 583 |
| HU | 623 | 614 | 601 | 592 | 577 | 562 | 549 | 538 | 527 |
| IE | 576 | 573 | 571 | 567 | 564 | 551 | 541 | 532 | 527 |
| IT | 654 | 647 | 638 | 631 | 616 | 604 | 594 | 586 | 579 |
| LT | 597 | 592 | 586 | 581 | 574 | 566 | 558 | 549 | 539 |
| LU | 582 | 574 | 572 | 572 | 570 | 562 | 555 | 549 | 545 |
| LV | 581 | 572 | 559 | 549 | 530 | 517 | 507 | 500 | 494 |
| MT | 614 | 606 | 600 | 593 | 581 | 568 | 558 | 549 | 539 |
| NL | 689 | 682 | 675 | 671 | 663 | 651 | 641 | 630 | 622 |
| NO | 657 | 651 | 646 | 637 | 632 | 625 | 621 | 619 | 620 |
| PL | 596 | 590 | 576 | 565 | 555 | 545 | 535 | 526 | 517 |
| PT | 649 | 642 | 635 | 627 | 620 | 610 | 600 | 590 | 580 |
| RO | 635 | 627 | 619 | 612 | 601 | 589 | 576 | 563 | 548 |
| SE | 615 | 609 | 602 | 596 | 590 | 580 | 571 | 563 | 557 |
| SI | 592 | 584 | 578 | 572 | 559 | 546 | 533 | 521 | 512 |
| SK | 484 | 472 | 460 | 452 | 438 | 425 | 413 | 402 | 392 |
| UK | 628 | 624 | 620 | 614 | 607 | 595 | 584 | 573 | 565 |
| Grand Total | 619 | 612 | 604 | 597 | 588 | 576 | 566 | 556 | 548 |

Source: TREMOVE

²⁸¹ EU-28 figures include HR



Table 39 Average improvement in fuel use obtained by drivers after taking a training course Tonnes of CO₂ per million Vehicle Kilometres by member state and over time

| Research paper | Short-term-effects on eco-driving | Long-term-effects on eco-driving | Driver type |
|---|-----------------------------------|----------------------------------|------------------------------|
| Zardakoula et al. (2007) ²⁸² | 4.35% (2 months) | | Professional bus drivers |
| CIECA survey (2007) ²⁸³ | 15-25% (average < 1 year) | 4.7-8% (average > 1 year) | Professional/company drivers |
| Beusen et al. (2009) ²⁸⁴ | | 5.8% (10 months) | Passenger cars |

Table 40 Fuel savings eco-driving

| Goods | | Km/year | Litres | Savings | |
|----------------|-----------|---------|-----------------|---------------|---------------|
| | | | | 2,5 % | 5 % |
| Domestic | 2.012.868 | 80.000 | 53.139.715.200 | 1.885.131.397 | 3.770.262.793 |
| International | 1.036.932 | 130.000 | 44.484.382.800 | 1.578.083.480 | 3.156.166.960 |
| Passenger | | | | | |
| Busses | 559.130 | 40000 | 7.380.516.000 | 261.823.805 | 523.647.610 |
| Coaches | 301.070 | 160000 | 15.896.496.000 | 563.928.196 | 1.127.856.391 |
| Total vehicles | 3.910.000 | | 120.901.110.000 | 4.288.966.877 | 8.577.933.755 |

Source: *Vervoer en Opslag, Sector beschrijving UVW, 18 February 2014, Kerncijfers touringcar vervoer, Panteia 2012, consultants calculations. Fuel price 1,419. Fuel consumption 33 litres / 100 km.*

Table 41 Fuel savings eco-driving, micro level

| | Km | Litres | Eur | Savings | |
|-------|---------|--------|--------|---------|-------|
| | | | | 2,5% | 5% |
| Truck | 130.000 | 42.900 | 60.875 | 1.522 | 3.044 |
| Truck | 80.000 | 26.400 | 37.462 | 937 | 1.873 |
| Bus | 40.000 | 13.200 | 18.731 | 468 | 937 |
| Coach | 160.000 | 52.800 | 74.923 | 1.873 | 3.746 |

²⁸² Zardakoula, Zoidis & Tritopoulou (2007). Training urban bus drivers to promote smart driving, A note on a Greek eco-driving pilot program. Transportation Research Part D, 12, 449-451.

²⁸³ CIECA internal project on Eco-driving in category B driver training & the driving test (2007). Final Report. CIECA Eco-driving project 2007: Eco-driving in driver training and testing.

²⁸⁴ Beusen, Broekx, Denys, Beckx, Degraeuwe, Gijsbers, Scheepers, Govaerts, Torfs & Panis (2009). Using on-board logging devices to study the long-term impact of an eco-driving course. Transportation Research Part D, 14, 514-520.



Table 42 Overlaps and differences between 2006/126/EC and Directive 2003/59/EC

| 2006/126/EC | | 2003/59/EC | |
|---|---|--|--|
| All categories | | | |
| 2.1.1: Road traffic ; | regulations: — in particular as regards road signs, markings and signals, rights of way and speed limits | | |
| 2.1.2: The Driver | importance of alertness and of attitude to other road users, — perception, judgement and decision-taking, especially reaction time, as well as changes in driving behaviour due to the influence of alcohol, drugs and medicinal products, state of mind and fatigue; | 3.4: Objective: awareness of the importance of physical and mental ability: (all categories) | principles of healthy, balanced eating, effects of alcohol, drugs or any other substance likely to affect behaviour, symptoms, causes, effects of fatigue and stress, fundamental role of the basic work/rest cycle. |
| 2.1.3: The Road | — the most important principles concerning the observance of a safe distance between vehicles, braking distances and roadholding under various weather and road conditions, — driving risk factors related to various road conditions, in particular as they change with the weather and the time of day or night, — characteristics of various types of road and the related statutory requirements; | | |
| 2.1.4: Other road users | — specific risk factors related to the lack of experience of other road users and the most vulnerable categories of users such as children, pedestrians, cyclists and people whose mobility is reduced, — risks involved in the movement and driving of various types of vehicles and of the different fields of view of their drivers; | | |
| 2.1.5: General rules and regulations and other matters: | — rules concerning the administrative documents required for the use of vehicles, — general rules specifying how the driver must behave in the event of an accident (setting warning devices and raising the alarm) and the measures which he can take to assist road accident victims where necessary, — safety factors relating to the vehicle, the load and persons carried; | | |
| 2.1.6: Precautions necessary when alighting from the vehicle; | | | |



| | | | |
|--|---|--|--|
| 2.1.7: Mechanical aspects with a bearing on road safety; | applicants must be able to detect the most common faults, in particular in the steering, suspension and braking systems, tyres, lights and direction indicators, reflectors, rear-view mirrors, windscreen and wipers, the exhaust system, seat-belts and the audible warning device; | | |
| 2.1.8: Vehicle safety equipment | and, in particular, the use of seat-belts, head restraints and child safety equipment; | | |
| 2.1.9: Rules regarding vehicle use in relation to the environment | appropriate use of audible warning devices, moderate fuel consumption, limitation of pollutant emissions, etc. | 1.1: Objective: to know the characteristics of the transmission system in order to make the best possible use of it: (all categories) | curves relating to torque, power, and specific consumption of an engine, area of optimum use of revolution counter, gearbox-ratio cover diagrams. |
| | | 1.2: Objective: to know the technical characteristics and operation of the safety controls in order to control the vehicle, minimise wear and tear and prevent disfunctioning : (all categories) | specific features of hydraulic vacuum servo-brake circuit, limits to the use of brakes and retarder, combined use of brakes and retarder, making better use of speed and gear ratio, making use of vehicle inertia, using ways of slowing down and braking on downhill stretches, action in the event of failure. |
| | | 1.3: Objective: ability to optimise fuel consumption: (all categories) | optimisation of fuel consumption by applying know-how as regards points 1.1 and 1.2. |
| 4. Specific provisions concerning categories C, C+E, C1, C1+E, D, D+E, D1 and D1+E | | | |
| 4.1.1: Compulsory check of general knowledge on: | Rules on driving hours and rest periods as defined by Council Regulation (EEC) No 3820/85 ⁽¹⁾ ; use of the recording equipment as defined by Council Regulation (EEC) No 3821/85 ⁽²⁾ ; | 2.1: Objective: to know the social environment of road transport and the rules governing it: (all categories) | maximum working periods specific to the transport industry; principles, application and consequences of Regulations (EEC) No 3820/85 and (EEC) No 3821/85; penalties for failure to use, improper use of and tampering with the tachograph; knowledge of the social environment of road transport: rights and duties of drivers as regards initial qualification and periodic training. |
| 4.1.2. Rules concerning the type of transport concerned: | Goods or passengers. | 2.2: Objective: to know the regulations governing the carriage of goods: (C, CE, C1, C1E) | transport operating licences, obligations under standard contracts for the carriage of goods, drafting of documents which form the transport contract, international transport permits, obligations under the Convention on the Contract for the International Carriage of Goods by Road, drafting of the international consignment note, crossing borders, freight forwarders, special documents accompanying goods |



| | | | |
|---|--|---|---|
| 4.1.3: Vehicle and transport documents required for the national and international carriage of; | Goods and passengers. | 2.3: Objective: to know the regulations governing the carriage of passengers: (D, DE, D1, D1E) | carriage of specific groups of passengers, safety equipment on board buses, safety belts, vehicle load. |
| 4.1.4: How to behave in the event of an accident; | knowledge of measures to be taken after an accident or similar occurrence, including emergency action such as evacuation of passengers and basic knowledge of first aid. | 3.5: Objective: ability to assess emergency situations: (all categories) | behaviour in an emergency situation: assessment of the situation, avoiding complications of an accident, summoning assistance, assisting casualties and giving first aid, reaction in the event of fire, evacuation of occupants of a lorry/bus passengers, ensuring the safety of all passengers, reaction in the event of aggression; basic principles for the drafting of an accident report. |
| 4.1.5: The precautions to be taken during the removal and replacement of wheels | | | |
| 4.1.6: Rules on vehicle weights and dimensions; rules on speed limiters; | | | |
| 4.1.7: Obstruction of the field of view caused by the characteristics of their vehicles; | | | |
| 4.1.8: Reading a road map, route planning, including the use of electronic navigation systems (optional); | | | |
| 4.1.9: Safety factors relating to vehicle loading: | controlling the load (stowing and fastening), difficulties with different kinds of load (e.g. liquids, hanging loads, ...), loading and unloading goods and the use of loading equipment (categories C, C+E, C1, C1+E only). | 1.4: Objective: ability to load the vehicle with due regard for safety rules and proper vehicle use: (C, CE, C1, C1E) | forces affecting vehicles in motion, use of gearbox ratios according to vehicle load and road profile, calculation of payload of vehicle or assembly, calculation of total volume, load distribution, consequences of overloading the axle, vehicle stability and centre of gravity, types of packaging and pallets; main categories of goods needing securing, clamping and securing techniques, use of securing straps, checking of securing devices, use of handling equipment, placing and removal of tarpaulins. |
| 4.1.10: The driver's responsibility in respect to the carriage of passengers; | comfort and safety of passengers; transport of children; necessary checks before driving away; all sorts of buses should be part of the theory test (public service buses and coaches, buses with special dimensions, ...) (categories D, D+E, D1, D1+E only). | 1.5: Objective: ability to ensure passenger comfort and safety (D, DE, D1, D1E) | adjusting longitudinal and sideways movements, road sharing, position on the road, smooth breaking, overhang operation, using specific infrastructures (public areas, dedicated lanes), managing conflicts between safe driving and other roles as a driver, interacting with passengers, peculiarities of certain groups of passengers (disabled persons, children). |



| | | | |
|---|---|---|---|
| | | 1.6: Objective: ability to load the vehicle with due regard for safety rules and proper vehicle use: (D, DE, D1, D1E) | forces affecting vehicles in motion, use of gearbox-ratios according to vehicle load and road profile, calculation of payload of vehicle or assembly, load distribution, consequences of overloading the axle, vehicle stability and centre of gravity. |
| 4.2 Compulsory check of general knowledge on the following additional provisions concerning categories C, C+E, D and D+E | | | |
| 4.2.1: The principles of the construction and functioning of: | internal combustion engines, fluids (e.g. engine oil, coolant, washer fluid), the fuel system, the electrical system, the ignition system, the transmission system (clutch, gearbox, etc.). | | |
| 4.2.2: Lubrication and antifreeze protection; | | | |
| 4.2.3: The principles of the construction, the fitting, correct use and care of tyres; | | | |
| 4.2.4: The principles of the types, operation, main parts, connection, use and day-to-day maintenance of brake fittings and speed governors, and use of anti-lock brakes; | | | |
| 4.2.5: principles of the types, operation, main parts, connection, use and day-to-day maintenance of coupling systems (categories C+E, D+E only); | | | |
| 4.2.6: Methods of locating causes of breakdowns; | | | |
| 4.2.7: Preventive maintenance of vehicles and necessary running repairs; | | | |
| 4.2.8: The driver's responsibility in respect of the receipt, carriage and delivery of goods in accordance with the agreed conditions (categories C, C+E only). | | 3.6: Objective: ability to adopt behaviour to help enhance the image of the company: (all categories) | behaviour of the driver and company image: importance for the company of the standard of service provided by the driver, the roles of the driver, people with whom the driver will be dealing, vehicle maintenance, work organisation, commercial and financial effects of a dispute. |
| | | 3.1: Objective: to make drivers aware of the risks of the road and of accidents at work: (all categories) | types of accidents at work in the transport sector, road accident statistics, involvement of lorries/coaches, human, material and financial consequences. |



| | | | |
|--|--|---|--|
| | | 3.2: Objective: ability to prevent criminality and trafficking in illegal immigrants (all categories) | general information, implications for drivers, preventive measures, check list, legislation on transport operator liability. |
| | | 3.3: Objective: ability to prevent physical risks: (all categories) | ergonomic principles; movements and postures which pose a risk, physical fitness, handling exercises, personal protection.. |
| | | 3.7: Objective: to know the economic environment of road haulage and the organisation of the market: (C, CE, C1, C1E) | road transport in relation to other modes of transport (competition, shippers), different road transport activities (transport for hire or reward, own account, auxiliary transport activities), organisation of the main types of transport company and auxiliary transport activities, different transport specialisations (road tanker, controlled temperature, etc.), changes in the industry (diversification of services provided, rail-road, subcontracting, etc.). |
| | | 3.8: Objective: to know the economic environment of the carriage of passengers by road and the organisation of the market: (D, DE, D1, D1E) | carriage of passengers by road in relation to other modes of passenger transport (rail, private car), different activities involving the carriage of passengers by road, crossing borders (international transport), organisation of the main types of companies for the carriage of passengers by road. |



Table 43 Exemptions in seven Member States

| Country | Comments |
|---------|--|
| BE | According to the CIECA Survey ²⁸⁵ besides the exceptions listed in the Directive, Belgium specifies that MAM (Maximum Allowed Mass) of the vehicle of incidental driver may not exceed 7.5 tones |
| EE | The Directive shall not apply to drivers of vehicles, for which a domestic category (D- category trolleybus, T-category tractor) is needed |
| FI | Buses which are used privately on other than commercial passenger transport and the persons being transported live in household with drivers and one of them owns the bus are exempted. ²⁸⁶ |
| GR | Drivers of vehicles that are used for private use that are for non-commercial carriage of passengers are exempted from the requirement to hold a CPC. These include buses that are used by industries, public work and mining companies, airlines etc. to transport the workers and personnel. Also trucks that are used for; a) roadside assistance, b) Shipping and freight forwarders for transport only packaging are exempted. |
| NL | The exemptions enlisted go beyond the scope of Article 2 of Directive 2003/59/EC, and exclude from its scope of application drivers who travel within a distance of 50km, small business, various mobile services, such as e.g. libraries, medical services, cafeteria's and expositions. Article 156q Reglement rijbewijzen states the exemptions: similar exemptions to Article 4 of the Directive include: drivers, born before July 1, 1955, are exempted from the requirement to obtain a certificate of competence. |
| PT | Under Decree-Law No. 126 there is a further specification regarding exemption related to vehicles used for non-commercial carriage of passengers or goods for personal use. Under Portuguese law, the exemption only applies to vehicles having capacity of up to 14 places and vehicles with a weight of up to 7500kg. |
| RO | Romania does not apply the exemptions referred to in Article 2(e), (f) and (g). ²⁸⁷ Further exemptions are provided under Ordinance 109/2005, which has identical scope of application as Ordinance 42/2006. ²⁸⁸ |

Source: Consortium questionnaire (2014) & CIECA Survey (2010)

Table 44 Overview of policy on mutual recognition per Member State

| Country | Recognition policy |
|---------|---|
| AT | Austria will recognize any (partial) PT that was already carried out in another Member State, as long as there is evidence to prove it. Drivers holding a foreign driving license have to apply for an Austrian driving license so that the Community Code can be marked by Austrian competent authorities on their Austrian driving license or this driver has to apply for marking the code 95 on his foreign driving license or for issuing a separate driver qualification card in the Member State in which he has his normal residence. |
| BE | Partial periodic training is not accepted. Completed periodic training is accepted but evidence will be checked. |
| CZ | Only training realized in a Czech accredited centre is accepted in the Czech Republic. |
| DE | The Germany authorities will recognize the initials training and periodic training that has been completed or partially completed in another EU MS or EEA country. The certification is only accepted when it has been issued by the competent authority of the MS in which the training was carried out. |
| DK | The Danish Transport Authority does not recognise any certificates other than CPC's. This constitutes a problem in regard to other member countries in which it is common practice to issue non – CPC certificates of proficiency originating from individual schools. |

²⁸⁵ CIECA (2010)

²⁸⁶ ETF/IRU (2013).

²⁸⁷ European Commission (2012a).

²⁸⁸ Article 1(1) of Ordinance 42/2006 of 27 January 2006 (Ordinul nr. 42/2006 privind condițiile de pregătire profesională inițială și continuă a anumitor categorii de conducători auto (Publicat în Monitorul Oficial, Partea I nr. 79 din 27.01.2006)).

| Country | Recognition policy |
|---------|---|
| EE | In Estonia it is not acceptable (partial) periodic training already carried out in another EU Member State. We accept only (partial) periodic training, which is carried on in Estonia. |
| ES | Only entire periodic training carried out in another EU Member State and certified according to what of Directive 2003/59/CE establishes is accepted. There is no acceptance of partial periodic training. |
| FI | Partial training that has been completed in other member state is not accepted. Only Driver Qualification Cards and markings on the driver license are accepted. Finland recognizes the 35- hour periodic training taken in another Member State, when it is completed and validated by the extended validity of the driver qualification card. |
| FR | For example France does not accept the periodic training of French drivers done in Germany. Article 21 of Decree 2007-1340 of 11 September 2007 allows for the recognition of qualifications obtained in another Member State, based on code 95. However, there is no acceptance of a partial periodic training already carried out in another EU member state. |
| GR | No. Greece does not accept partial periodic training carried out in another EU Member State, CPC Schools in Greece are not allowed to issue certificate for partial completion of periodic training, so there's no need for acceptance by another EU Member. |
| HU | In Hungary CPC issued in Austria certifying the periodic training of an Hungarian professional driver that lives in Hungary and works for an Austrian undertaking is not approved for the issuing of an Hungarian driver qualification card. Hungary's been trying to come in to terms with Austria about mutual recognition, as there are some drivers whose residence is in Hungary, but works in Austria and want to complete the periodic training there. The negotiations are still in progress. |
| IE | Only where we have confirmation of equivalence agreed with the particular MS |
| IT | No case yet. |
| LT | No case yet |
| LU | Luxembourg deals with mutual recognition on a case by case basis |
| LV | Partial training in other countries is not accepted, only official DQC are accepted. |
| MT | Yes, however evidence is necessary. |
| NL | The Netherlands accepts partial periodic training from other Member States however they require evidence. |
| PL | No, partial PT carried out in another MS is not accepted. |
| PT | No experience |
| SE | Neither complete periodic training nor partial periodic training carried out in another member state is accepted. |
| SI | Partial training in other countries is not accepted, only official DQC are accepted. |
| SK | Slovak Republic recognizes all documents proved the initial training graduation or passing the periodic training, however Slovak republic does not issue Slovak qualification card of driver based on foreign documents. Slovak's driver qualification card is possible to issue only to this person who pass periodic training in Slovak Republic or graduated in the course of basic qualification with successful test also in Slovak Republic |
| UK | Accepts partial training in foreign countries, if the training can be evidenced, up to a maximum of 28 hours. |

Source: Consortium questionnaire (2014)



Table 45 Contents of the training – national syllabus per Member States

| Country Name | National Syllabus | Further Comments |
|--------------|-------------------|---|
| AT | No | 28 hours on improvement in rational driving (7 hours), optimization of fuel consumption (7 hours), ensuring cargo/passenger safety (5 hours), knowledge of social law conditions (4 hour), knowledge of the rules of the road for freight transportation/carriage of passengers (1 hour), health, transport and environmental safety, service and logistics (3 hours) and knowledge of the business environment of road haulage/carriage of passengers by road (1 hour). The remaining seven hours can be done in special training courses for C/D license. |
| BE | Yes | With respect to the content of the PT, the relevant domestic legislation refer to Annex 1 of Directive 2003/59/EC, but add that at least one of the modules chosen by the driver must be a module on rational and economical driving that includes practical driving lessons for three hours at least. Appendix 1 of the 2007 Royal Decree on the licenses provides for the course modules. |
| BG | No | Training centres prepare their own training programmes based on the subjects set out in Section 1, Annex 1 to Directive 2003/59/EC. The Road Transport Administration checks them for compliance with the Directive. |
| CZ | Yes | There is a syllabus adopted by the CESMAD Bohemia, which is in line with the Annex I of the Directive 2003/59 ²⁸⁹ . |
| DE | No | The subjects of the five modules are in line with the Section1, Annex 1 of Directive 2003/59. The modules focus on; inter alia, eco-driving, safe driving, service providing, etc. A problem has raised with regard to the periodic training modules. For example, the majority of drivers ask specifically for regular first aid training to be included in the PT framework in order to be prepared for cases of emergency on the road. |
| DK | No | Three days are accorded to address topics enlisted also in uniform training syllabus in accordance with Section 1, Annex I of Directive 2003/59. The programme covers: <ul style="list-style-type: none"> – Ability to load the vehicle with due regard for safety rules and proper vehicle use; – First aid; – Regulations for when to drive and rest; – Traffic safety; – Economic driving; – 2 hours of individual driving with an instructor (these may be done in with Simulator) Two days have to be filled up with optional courses. There is a list of approximately 30 courses available, 4 of them include the use of simulators. These are as follows: <ul style="list-style-type: none"> - Defensive driving; - Eco driving; - Driving with new technology; - Branch related driving. |
| EE | Yes | This is a detailed training syllabus, which is in accordance with Directive. |
| ES | No | Article 7 (2) of the Real Decreto 1032/2007 states that the content must be essentially a recapitulation of the subjects covered on Annex I (namely those discussed during the initial qualification course). The training is theoretical, however, it does not completely exclude certain practical exercises such as loading and unloading, extinguishing fires, etc. Furthermore, it divides the amount of hours that must be spent on each module. For the first module "Advanced training about rational driving based on safety rules" 8 hours must be spent on it out of the total 35 hours, for the second module "Application of rules" five hours must be used to cover it. Lastly, the third module "Health, driving and environmental safety" requires 22 hours of training. |

²⁸⁹ According to the feedback provided by the country. The Consultant has not verified this feedback. This also applies to feedback provided by other countries.



| Country Name | National Syllabus | Further Comments |
|--------------|-------------------|---|
| FI | No | The periodic training program goes through the subjects indicated in the Directive and must include at least 7 hours training on safe and economical driving. These economical driving trainings are theoretical only. The ADR for dangerous goods could be part of the periodic training as well, as one day of the official ADR course can be counted into the periodic training. Driving hours are not compulsory. Periodic training is mainly carried out by private companies, driving schools and employers (with in-house training). |
| FR | Yes | The Act of 3 January 2008 defines the syllabus and it fully complies with the Annex I of the Directive. |
| HU | Yes | The NKH formulated the Official Curriculum and Syllabus. The NKH also designated a group of experts within the Training and Testing Supervisory Department whose task is to regularly update these instruments. |
| IE | Yes | The course subjects allowed by the Irish authorities include: <ul style="list-style-type: none"> • Control of the vehicle and eco-driving techniques; • Minimizing risks and managing emergencies in the transport industry; • Health and safety for the professional driver; • Role of the professional driver in the transport industry; • The professional truck driver; • The professional bus driver. The courses provided are in line with Section 1, Annex 1 of Directive 2003/59/EC, and are given with the approval of the Road Safety Authority. |
| IT | No | The content of the PT is based on Sections 3 and 4 of the Annex to Legislative Decree n. 286 of 21 November 2005. This is the implementation of the subjects provided for under Section 1, Annex I of Directive 2003/59/EC. |
| LT | Yes | Content of the training corresponds with the objectives set out in Section 1 of the Annex 1 of the Directive 2003/59/EC. Content can be found in Order 3-79 and in the national programs. |
| LU | Yes | Section 1 (Annex) of the Grand Ducal Regulation of 2 October 2009 ²⁹⁰ provides the minimum requirements for the training. Annex of the Grand Ducal Regulation of 2 October 2009 is in line with the Directive. |
| LV | No | The training focuses on subjects such as: <ol style="list-style-type: none"> Economic and rational driving based on safety regulations; Vehicle transmission and its correct usage; Technical specifications, knowledge management and security devices; Optimization of fuel consumption; Passenger comfort and safety services; Commercial vehicles parking; Legislation on cargo, passenger and driving times and rest periods; Licenses for freight transport and other documents necessary; Dangerous situations and prediction of the driver's behaviours; Crime and prevention of illegal immigration; Ergonomic principles; Driver's physical and mental ability to impact on road safety; Emergency assessment (help victims and first aid); Enhancement of the image of the company and knowledge of the economic environment of road haulage and the organization of the market. |
| NL | No | Domestic law explicitly refers to Section 1 of Annex 1 without adding any additional requirements. |
| PT | Yes | According to Annex IV of the Decree-Law No.126, the periodic training has a special focus on subjects relating to road safety and petrol consumption. |

²⁹⁰ Act of 2 October 2009 on the initial qualification and periodic training of drivers of certain vehicles road for the carriage of goods or passengers.



| Country Name | National Syllabus | Further Comments |
|--------------|-------------------|--|
| RO | No | The subjects that must be addressed for the initial qualification are set out in Annex 1 of Ordinance 42/2006. This annex relies on the subjects enlisted under Section 1 of Annex 1 to Directive 2003/59. There is no further national syllabus available. Also note that the training programme is limited to the subjects listed in the Directive only. The Periodic Training (PT) must be carried out within a five years after obtaining a CPC. The PT is distributed in two modules: a 3-day and a 2-day block respectively, each one of them containing 7 h/day training. |
| SK | No | The content of the PT complies with the programme set out in Section 1, Annex I of Directive 2003/59/EC. The training is structured in course blocks, most of them lasting for 7 hours. The training also includes 2 hours of practical driving. |
| SE | No | The training programmes contain compulsory modules which include rational driving, loading and unloading rules, road transport regulation, social regulation, health and safety. |
| UK | No | National Standards has been published which is in line with the Directive. The periodic training in the UK is flexible with 1400 approved courses in addition to the courses provided under Section 1, Annex 1 to Directive 2003/59. The drivers or the companies have the freedom to select and chose which modules to follow. The periodic training is compulsory and requires to be undertaken in an accredited centre |

Source: Consortium questionnaire (2014)



Table 46 Calculation of number of exempted drivers

| | Total nr of drivers | Exempt% | Number of exempted drivers | Number of not exempted drivers |
|----|---------------------|------------|----------------------------|--------------------------------|
| AT | 67,989 | 13,2 | 8,984 | 59,005 |
| BE | 86,479 | 13,2 | 11,427 | 75,052 |
| BG | 96,016 | 13,2 | 12,687 | 83,329 |
| CY | 4,374 | 13,2 | 578 | 3,796 |
| CZ | 154,561 | 3,5 | 5,410 | 149,151 |
| DE | 697,279 | 13,2 | 92,135 | 605,144 |
| DK | 40,984 | 7,5 | 3,074 | 37,910 |
| EE | 21,600 | 13,2 | 2,854 | 18,746 |
| ES | 391,759 | 13,2 | 51,765 | 339,994 |
| FI | 58,306 | 1,9 | 1,108 | 57,198 |
| FR | 431,987 | 18,1 | 78,004 | 353,983 |
| GR | 74,111 | 21,0 | 15,563 | 58,548 |
| HU | 134,804 | 7,5 | 10,110 | 124,694 |
| IE | 28,230 | 3,5 | 988 | 27,242 |
| IT | 428,152 | 13,2 | 56,574 | 371,578 |
| LT | 36,104 | 13,2 | 4,771 | 31,333 |
| LU | 3,945 | 13,2 | 521 | 3,424 |
| LV | 22,216 | 13,2 | 2,936 | 19,280 |
| MT | 2,688 | 21,0 | 564 | 2,124 |
| NL | 112,780 | 15,0 | 16,917 | 95,863 |
| PL | 420,450 | 13,2 | 55,556 | 364,894 |
| PT | 89,236 | 7,5 | 6,693 | 82,543 |
| RO | 176,097 | 13,2 | 23,269 | 152,828 |
| SE | 94,307 | 13,2 | 12,461 | 81,846 |
| SI | 20,495 | 2,5 | 512 | 19,983 |
| SK | 77,035 | 21,0 | 16,177 | 60,858 |
| UK | 379,101 | 15,0 | 56,865 | 322,236 |
| | 4,151,085 | | 548,502 | 3,602,583 |
| | | Average %= | 13,2135 ²⁹¹ | |

²⁹¹ The average percentage is calculated on the basis of data collected via the Consortium Questionnaire Survey. Countries that replied are: CZ, DK, FI, FR, GR, HU, IE, MT, NL, PT, SI, SK and UK. The average of 13.2% was used for the countries that did not reply.



Table 47 Who bears the training costs

| Country | Bearer of Cost of Periodic Training | Further Comments |
|---------|--|--|
| AT | Driver | Cost of initial qualification is regulated by law. Determination of costs of PT is left to training centres. ²⁹² |
| BE | Generally covered by employer | The cost of Initial Qualification exam is fixed by SPF Mobility and Transport. There are funds to help drivers cover the costs of initial qualification such as Transport and Logistics Social Fund and The Social Fund for Workers in Public and Special Services Companies and in Coach Services. |
| BG | Driver | |
| CY | Driver | Ministry of Labour and Social Insurance sometimes finds it as an element of employment policies. ²⁹³ |
| CZ | Driver (sometimes the employer contributes) | |
| DE | | |
| DK | The entire PT is funded by AMU; trainee pays €80 and the employer maintains the salary of employee during the training period and receives compensation from the State amounting approximately €420. | <p>- The 3-year apprenticeship: Apprenticeship is free of charge for apprentices who are paid from public funds during the contract period. Youngsters (formal report) receive approximately 50% of the normal adult salary and adults (over 25 years) are normally paid the standard salary. The State encourages companies to hire more apprentices – both youngsters (repetition) and adults - through a special system of subsidies, which may be as high as 70,000 Dkr (approx. € 9,300) for a full programme. The State's expenses are covered by general taxation;</p> <p>- The AMU program (Adult vocational training): The participant pays approx. 80 Euros per week (€ 480 for the 6 weeks including the training for driver's licence C or D), the rest is financed by the State from the revenue of the 8% labour tax, plus resources from compulsory payments by the companies (the AER payments). The participant pays approx. € 80 per week, or € 480 for the 6 weeks (including the training for driver's licence C or D). This covers approx. 80-85% of the total cost of the courses. The rest is financed by the State. The State's expenses are covered from the revenue of the 8% labour tax, plus resources from compulsory payments by the companies (the AER payments). For active workers, a compensation for lost production (or lost salary) is paid to the company. The amount is about € 2,452 in such a case.²⁹⁴</p> |
| EE | Driver however it sometimes depends on the agreement with the company | Issuing cost for the certificate is €31.95 |
| ES | Driver | Training providers that obtained subventions from Tripartite Foundation through the trade unions or employers organizations offer the training for free. However, some companies provide directly training, implementing flexible schedules in order to support the drivers to obtain the CPC. |
| FI | Employer | |

²⁹² ETF/IRU (2013)

²⁹³ ETF/IRU (2013)

²⁹⁴ ETF/IRU (2013)



| Country | Bearer of Cost of Periodic Training | Further Comments |
|---------|-------------------------------------|---|
| FR | Employer | French Government passed a law states that the periodic training hours are considered as working hours, Article 9 of Decree No 2007-1340 of 11 September 2007 |
| GR | Driver | |
| HU | Driver | In some cases the drivers can get funding through employment agencies, employers etc |
| IE | Driver, sometimes employer | |
| IT | Driver | ANAV (Associazione Nazionale Autotrasporto Viaggiatori, the National Association of Road Passengers) and EGAF (Edizioni Giuridico Amministrative e Formazione) concluded a cooperation agreement to carry out driver training. Under this contract, the drivers are trained at affiliated driving schools and will not pay more than €195 plus the administrative costs. |
| LT | Driver | Article 143 of the Labour Code specifies the composition of working time. Article 143(6) states that the workplace or training centres are included in working time, however, in practice it does not count as work. |
| LU | Employer 2/3, State 1/3 | Drivers do not cover any training costs. The Luxembourg Grand-Ducal Regulation of 2 October 2009 (Memorial A-No. 204 on 16 October 2009) defines how the costs should be covered. It says that: - the cost of the initial qualification and the accelerated initial qualification are fully covered by the State, - the cost of periodic training is split between the employer paying two thirds of the costs and the State paying for the remaining third. There is no information available on the legal obligation to consider the 35 hours of training as working hours |
| LV | | |
| MT | Employer | If the employer bears the cost, driver needs to stay in that company at least one year |
| NL | Employer | |
| PL | Driver (sometimes employers) | There are no public funds |
| PT | Driver | |
| RO | Driver | |
| SE | Employer | |
| SI | Driver | |
| SK | Driver | |
| UK | Company & Driver | |

Source: Consortium questionnaire survey and CIECA (2010), ETF/IRU (2013)



Annex 3 Calculation of regulatory costs

In the assessment of costs for stakeholders caused by the implementation of Directive 2003/59/EC the Standard Cost Model (SCM)²⁹⁵ is applied. Four stakeholder categories are identified: enterprises, drivers, trainees (student drivers) and public administrations. The components of the cost categories are as follows:

| |
|--|
| $\begin{aligned} \text{Total regulatory costs (TC)} &= \text{Compliance Costs (CC) for enterprises / drivers / trainees} \\ &+ \\ &\text{Implementation Costs (IC) for public administrations.} \end{aligned}$ |
|--|

Compliance Costs (CC) for enterprises / drivers / trainees are defined as Substantive Costs (SC) + Administrative Costs (AC). Substantive costs are costs made in order to comply with the content obligation that legislation and regulations require, administrative costs are the costs associated with information obligations stemming from regulation.

The following table gives an overview of the cost components that will be taken into account in the calculation of total regulatory costs. The table shows the cost components, the cost categories, and the bearer of costs.

Table 48 Cost components regulatory costs

| Cost components | Cost category | Bearer of costs |
|--|----------------------|---------------------------------------|
| Time spend on training (value of leisure time) associated with initial training | Substantive costs | Trainees |
| Training and test fees associated with initial training | Substantive costs | Trainees |
| Issuing of driver qualification card or marking code 95 on driving license after initial training (time spend and administration fees) | Administrative costs | Trainees |
| Training fees and opportunity costs (wages / lost profits) associated with periodic training | Substantive costs | Enterprises Drivers Governments |
| Renewal of driver qualification card / code 95 on driving license after periodic training (time spend and administration fees) | Administrative costs | Drivers |
| Administrative costs for enterprises to maintain an administration on training of staff, including registration, reporting and monitoring of training followed by staff. | Administrative costs | Enterprises |
| Certification of training centres and quality control | Implementation Costs | Governments |
| Enforcement actions | Implementation Costs | Governments |

Substantive Costs for enterprises / drivers / trainees

Initial training – time spent and training and test fees

The following assumptions were made to estimate substantive costs associated with initial driver training:

²⁹⁵ See European Commission website on Reducing Regulatory Burden.



- The estimation of the total number of trainees is based on the Consortium questionnaire survey, CIECA (2010), ETF/IRU (2013), and consortium calculations. For countries where information was available about the total number of drivers and the number of new drivers, the ratio of new drivers to the total driver population was calculated. For countries where no information was available on the number of new drivers, we made use of the aforementioned ratio from comparable countries and the available number of drivers in the total driver population. In practice this means that for Belgium, the ratio from the Netherlands was used. The ratio of France was used in Spain, Greece, Italy and Portugal. The average ratio of Czech Republic, Slovenia and Slovakia was used for the estimation of the number of new drivers in Bulgaria, Hungary, Lithuania and Romania.
- The value of leisure time was estimated based on the VOT presented by the UNECE study (as described in the CE Delft handbook of external costs in the transport sector). The VOT for leisure was indicated to be € 4 (EU average, 1998). This value was updated to 2010 value (€ 5.04) using EU inflation figures. This value was then made comparable to the shadow-price of labour (methodology presented in the Guide to Cost Benefit Analysis of Investment Projects, DG REGIO, 2008) and differentiated for EU countries.
- A division of the number of trainees over the three available formats (long, shortened and test only) for initial driver training was made based on detailed information from the UK practical driving test pass rates by age, gender and license category. The assumption was made that the age differentiation for obtaining different driver license categories for the UK is representative for the rest of the EU. As a result, it was found that in countries where there is no "test only" procedure 5% of persons that passed the test would not qualify for the shortened initial training format, 95% does qualify for the shortened format.
- The hours required for the different test formats are taken from the Consortium questionnaire survey and CIECA (2010).
- In addition, administrative fees are estimated that trainees would be required to pay to follow the course and complete the driver test. These values were collected through the Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013). For those countries where no information was available, we used the average prices for the different procedures from those countries that did provide price information. The average fee to be paid within a test only procedure is € 245, within a training required procedure this is € 1,709.

As a result, total substantive costs (hour cost and fees) to be paid by trainees can be estimated for each country. For the EU27 countries, this amounts to a total of € 803 million. The following table presents the calculation in detail.

Table 49 Substantive costs of initial training, per year (€)

| | Number of driver trainees | Value of leisure time ²⁹⁶ | Division of trainees | | | Training hours per trainee | | | Total hour cost all trainees per type initial training | | | Average administrative cost (fees) per trainee | Total administrative cost (fees) for trainees | Total initial driver training cost (for trainees) |
|----|---------------------------|--------------------------------------|----------------------|------|------|----------------------------|------|------|--|-----------|-----------|--|---|---|
| | | | Short | Long | Test | Short | Long | Test | Short | Long | Test | | | |
| AT | 16,000 | 8.36 | | | 100% | 140 | 280 | 4 | 0 | 0 | 534,830 | 280 | 4,480,000 | 5,014,830 |
| BE | 6,933 | 7.57 | | | 100% | 140 | 280 | 4 | 0 | 0 | 209,924 | 400 | 2,773,280 | 2,983,204 |
| BG | 7,284 | 0.81 | 95% | 5% | | 140 | 280 | 4 | 782,175 | 82,334 | 0 | 1,709 | 12,451,412 | 13,315,921 |
| CY | 150 | 4.52 | | | 100% | 140 | 280 | 4 | 0 | 0 | 2,711 | 245 | 36,750 | 39,461 |
| CZ | 18,000 | 2.46 | 95% | 5% | | 140 | 280 | 4 | 5,878,768 | 618,818 | 0 | 1,000 | 18,000,000 | 24,497,586 |
| DE | 110,000 | 8.44 | 19% | 1% | 80% | 140 | 280 | 4 | 24,682,530 | 2,598,161 | 2,969,327 | 538 | 59,166,800 | 89,416,818 |
| DK | 3,420 | 15.77 | 95% | 5% | | 140 | 280 | 4 | 7,582,930 | 755,057 | 0 | 2,234 | 7,640,280 | 15,978,267 |
| EE | 7,000 | 1.96 | 95% | 5% | | 140 | 280 | 4 | 1,823,259 | 191,922 | 0 | 1,200 | 8,400,000 | 10,415,181 |
| ES | 31,321 | 3.29 | 95% | 5% | | 140 | 280 | 4 | 13,698,453 | 1,441,942 | 0 | 1,709 | 53,539,517 | 68,679,912 |
| FI | 5,200 | 8.22 | 95% | 5% | | 140 | 280 | 4 | 5,683,433 | 598,256 | 0 | 1,709 | 8,888,880 | 15,170,569 |
| FR | 38,000 | 8.39 | 95% | 5% | | 140 | 280 | 4 | 42,400,994 | 4,463,263 | 0 | 4,500 | 171,000,000 | 217,864,257 |
| GR | 15,574 | 3.29 | | | 100% | 140 | 280 | 4 | 0 | 0 | 205,016 | 40 | 622,970 | 827,985 |
| HU | 750 | 1.69 | 95% | 5% | | 140 | 280 | 4 | 168,977 | 17,787 | 0 | 480 | 360,000 | 546,764 |
| IE | 1,384 | 8.52 | | | 100% | 140 | 280 | 4 | 0 | 0 | 47,141 | 280 | 387,494 | 434,635 |
| IT | 60,130 | 5.58 | 95% | 5% | | 140 | 280 | 4 | 44,624,453 | 4,697,311 | 0 | 1,709 | 102,785,516 | 152,107,280 |
| LT | 3,460 | 1.13 | 95% | 5% | | 140 | 280 | 4 | 521,570 | 54,902 | 0 | 1,709 | 5,914,520 | 6,490,992 |
| LU | 1,010 | 11.52 | 95% | 5% | | 140 | 280 | 4 | 1,547,402 | 162,884 | 0 | 1,709 | 1,726,494 | 3,436,780 |
| LV | 6,400 | 1.26 | | | 100% | 140 | 280 | 4 | 0 | 0 | 32,313 | 400 | 2,560,000 | 2,592,313 |
| MT | 320 | 4.79 | | | 100% | 140 | 280 | 4 | 0 | 0 | 6,128 | 70 | 22,400 | 28,528 |
| NL | 6,000 | 6.56 | | | 100% | 140 | 280 | 4 | 0 | 0 | 157,339 | 245 | 1,470,000 | 1,627,339 |
| PL | 30,000 | 1.99 | 95% | 5% | | 140 | 280 | 4 | 7,925,406 | 834,253 | 0 | 2,190 | 65,700,000 | 74,459,659 |
| PT | 9,365 | 2.62 | 95% | 5% | | 140 | 280 | 4 | 3,260,432 | 343,203 | 0 | 1,709 | 16,007,892 | 19,611,527 |
| RO | 13,683 | 1.07 | 95% | 5% | | 140 | 280 | 4 | 1,938,926 | 204,097 | 0 | 1,709 | 23,389,294 | 25,532,318 |

²⁹⁶ Based on UNECE value for leisure calculated at an EU average of € 4 in 1998, corrected for inflation to estimated 2010 values per Member State



| | Number of driver trainees | Value of leisure time ²⁹⁶ | Division of trainees | | | Training hours per trainee | | | Total hour cost all trainees per type initial training | | | Average administrative cost (fees) per trainee | Total administrative cost (fees) for trainees | Total initial driver training cost (for trainees) |
|-------|---------------------------|--------------------------------------|----------------------|------|------|----------------------------|------|------|--|-----------|------|--|---|---|
| | | | Short | Long | Test | Short | Long | Test | Short | Long | Test | | | |
| SE | 4,500 | 6.39 | 95% | 5% | | 140 | 280 | 4 | 3,826,822 | 402,823 | 0 | 3,800 | 17,100,000 | 21,329,645 |
| SI | 400 | 3.76 | 95% | 5% | | 140 | 280 | 4 | 199,888 | 21,041 | 0 | 600 | 240,000 | 460,928 |
| SK | 4,000 | 1.85 | 95% | 5% | | 140 | 280 | 4 | 985,607 | 103,748 | 0 | 850 | 3,400,000 | 4,489,355 |
| UK | 20,000 | 7.12 | 95% | 5% | | 140 | 280 | 4 | 18,945,157 | 1,994,227 | 0 | 240 | 4,800,000 | 25,739,385 |
| Total | 420,283 | | | | | | | | | | | | | 803,091,439 |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations



Periodic training - Training fees and opportunity costs

Substantive costs for enterprises, associated with periodic training, are: training fees and opportunity costs. These costs are in most cases not solely carried by the employer. In most Member States, training time (35 hours) is not recognised as working time by law or in Collective Labour Agreements. In such cases, it is assumed that costs are carried by drivers, though in individual cases companies may have made other arrangements with their personnel. Furthermore, in most Member States also training fees are paid by the driver. Combinations in which the employer pays the training fee but not the wage also exist. In some Member States government institutions pay a part of the training costs (see Table 47 for details).

The following assumptions were made to estimate substantive costs associated with periodic driver training:

- If costs are borne by enterprises, the costs components are wages, training fees and lost profits²⁹⁷. For the hourly wages we use the Panteia study on road haulage²⁹⁸, that presents average driver costs for selected countries. Countries with missing values are adjusted based on the ratio estimated from EUROSTAT information on average gross earnings.
- If costs are borne by drivers, it is assumed that training is done outside working hours, and the cost components are value of lost leisure time as opportunity costs and training fees. The value of leisure time was estimated based on the VOT presented by the UNECE study (as described in the CE Delft handbook of external costs in the transport sector). The VOT for leisure was indicated to be € 4 (EU average, 1998). This value was updated to 2010 value (€ 5.04) using EU inflation figures. This value was then made comparable to the shadow-price of labour (methodology presented in the Guide to Cost Benefit Analysis of Investment Projects, DG REGIO, 2008) and differentiated for EU countries.
- For the calculation of the wage costs of periodic training we make use of our calculation of the number of active drivers holding a C and/or D driving license, excluding exemptions.
- For the training fees to be paid to training institutes, we make use of the results of the Consortium survey, the results of interviews and the reports of IRU/ETF (2013) and CIECA (2010).
- The distribution of costs among firms and drivers is based on the results of the CIECA (2010) and ETF/IRU (2013) studies.

The total costs per year associated with periodic training, excluding administrative costs, are estimated at around € 747 million, of which around € 582 million for enterprises (78%), € 163 million (22%) for drivers, and almost € 1.4 million (0.2%) for governments. The following table presents the calculation in detail.

²⁹⁷ Estimated lost profits, calculated as 12,5% of total wages, based on an average estimated profit of 5% in the sector²⁹⁷, and an estimated wage share in total costs of 40%, based on Panteia (2013)

²⁹⁸ Panteia (2013): Cost comparison and cost developments in the European road haulage sector



Table 50 Costs of periodic training, per year (€)

| | Nr of active drivers with C and/or D driving license ²⁹⁹ , excluding exemptions ³⁰⁰ | Hourly wages | Value of leisure time | Training fees periodic training for 35 hours | Share in costs ³⁰¹ | | | Total costs of periodic training, per year | | | Total costs per driver per year | Total costs per driver per year, corrected for PPP (2012) | |
|-----|---|--------------|-----------------------|--|-------------------------------|--------|------------|--|--------------------|------------|---------------------------------|---|--|
| | | | | | Firm | Driver | Government | Firm | Driver | Government | | | |
| AT | 59,005 | 28.20 | 8.36 | 250 | | 100 | 0 | 0 | 6.401.897 | | 108 | 103 | |
| BE | 75,052 | 30.33 | 7.57 | 600 | 100 | | 0 | 26,933,695 | 0 | | 359 | 330 | |
| BG | 83,329 | 19.74 | 0.81 | 170 | | 100 | 0 | 0 | 3.304.131 | | 40 | 82 | |
| CY | 3,796 | 17.85 | 4.52 | 50 | 50 | 50 | 0 | 285,783 | 79.006 | | 96 | 110 | |
| CZ | 149,151 | 20.48 | 2.46 | 197 | 90 | 10 | 0 | 26,933,241 | 844.038 | | 186 | 258 | |
| DE | 605,144 | 27.64 | 8.44 | 600 | 40 | 60 | 0 | 81,736,809 | 65.010.336 | | 242 | 240 | |
| DK | 37,910 | 27.61 | 15.77 | 560 | 67 | 5 | 28 | 10,511,110 | 505.237 | 1.188.864 | 291 | 207 | |
| EE | 18,746 | 7.81 | 1.96 | 160 | | 100 | 0 | 0 | 856.851 | | 46 | 59 | |
| ES | 339,994 | 25.86 | 3.29 | 165 | 80 | 20 | 0 | 64,360,576 | 3.809.228 | | 201 | 211 | |
| FI | 57,198 | 30.47 | 8.22 | 750 | 100 | | 0 | 22,304,504 | 0 | | 390 | 320 | |
| FR | 353,983 | 27.67 | 8.39 | 600 | 100 | | 0 | 119,612,728 | 0 | | 338 | 313 | |
| GR | 58,548 | 17.30 | 3.29 | 110 | | 100 | 0 | 0 | 2.636.788 | | 45 | 49 | |
| HU | 124,694 | 22.08 | 1.69 | 170 | | 100 | 0 | 0 | 5.718.207 | | 46 | 76 | |
| IE | 27,242 | 34.84 | 8.52 | 250 | 50 | 50 | 0 | 4,418,168 | 1.493.019 | | 217 | 185 | |
| IT | 371,578 | 28.43 | 5.58 | 700 | 80 | 20 | 0 | 108,172,135 | 13.306.955 | | 327 | 319 | |
| LT | 31,333 | 5.14 | 1.13 | 215 | | 100 | 0 | 0 | 1.595.931 | | 51 | 80 | |
| LU | 3,424 | 34.04 | 11.52 | 960 | 67 | 0 | 33 | 1,358,210 | 0 | 216.927 | 397 | 325 | |
| LV | 19,280 | 5.44 | 1.26 | 70 | 50 | 50 | 0 | 547,952 | 220.140 | | 40 | 56 | |
| MT | 2,124 | 14.36 | 4.79 | 50 | 50 | 50 | 0 | 130,687 | 46.198 | | 83 | 107 | |
| NL | 95,863 | 29.25 | 6.56 | 800 | 100 | | 0 | 37,419,523 | 0 | | 390 | 363 | |
| PL | 364,894 | 23.93 | 1.99 | 250 | | 100 | 0 | 0 | 23.318.268 | | 64 | 113 | |
| PT | 82,543 | 9.66 | 2.62 | 240 | 20 | 80 | 0 | 2,048,271 | 4.379.712 | | 78 | 91 | |
| RO | 152,828 | 21.03 | 1.07 | 80 | | 100 | 0 | 0 | 3.585.082 | | 23 | 42 | |
| SE | 81,846 | 32.29 | 6.39 | 480 | 100 | | 0 | 28,670,538 | 0 | | 350 | 272 | |
| SI | 19,983 | 26.82 | 3.76 | 200 | | 100 | 0 | 0 | 1.324.868 | | 66 | 80 | |
| SK | 60,858 | 21.21 | 1.85 | 150 | | 100 | 0 | 0 | 2.614.962 | | 43 | 61 | |
| UK | 322,236 | 25.83 | 7.12 | 433 | 50 | 50 | 0 | 46,723,156 | 21.985.456 | | 213 | 183 | |
| TOT | 3,602,583 | | | | | | | 582,167,085 | 163,036,309 | 1,405,791 | 175 | | |
| | | | | | Total | | | | 746,609,185 | | | | |
| | | | | | Weighted EU average | | | | 207 | | | | |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations

²⁹⁹ See Table 2

³⁰⁰ Number of driver exempt are calculated on the basis of the results of the Consortium questionnaire. Where values were missing, the average was used as a proxy.

³⁰¹ Costs for training fees for periodic training and time related costs are calculated for each category taken into account the shares as indicated in the table, except for DK and LU where the training fees are shared by firms, drivers and government.



Administrative Costs for enterprises / drivers / trainees

Recurring administrative costs for drivers

The following assumptions were made to estimate administrative costs for drivers:

- The required time to obtain / renew code 95 is estimated at one hour per driver every 5 years. We assume the driver does this outside working hours, valued at the costs of lost leisure time as in the previous calculations.
- Data regarding administrative costs to be paid to public administrations for renewal of the driver license / driver qualification card were collected for 8 countries (DE, FR, HU, IT, NL, PL, RO, UK). As a proxy of these costs for the other countries the average of the eight countries was used.
- For the calculation of the administrative we make us of our calculation of the number of active drivers holding a C and/or D driving license, excluding exemptions.

Recurring administrative costs for drivers are estimated at € 34 million per year. The following table show the detailed calculations.

Table 51 Administrative costs for drivers, per year (€)

| | Nr of active drivers with C and/or D driving license ³⁰² , excluding exemptions ³⁰³ | Value of leisure time | Estimated costs of driving licenses / driver qualification cards | Administrative costs for drivers, per year (€) | | Nr of active drivers with C and/or D driving license ³⁰⁴ , excluding exemptions ³⁰⁵ | Value of leisure time | Estimated costs of driving licenses / driver qualification cards | Administrative costs for drivers, per year (€) |
|----|---|-----------------------|--|--|------------|---|-----------------------|--|--|
| AT | 59,005 | 8.36 | 43 | 606,064 | IT | 371,578 | 5.58 | 46 | 3,833,201 |
| BE | 75,052 | 7.57 | 43 | 759,070 | LT | 31,333 | 1.13 | 43 | 276,570 |
| BG | 83,329 | 0.81 | 43 | 730,085 | LU | 3,424 | 11.52 | 43 | 37,332 |
| CY | 3,796 | 4.52 | 43 | 36,076 | LV | 19,280 | 1.26 | 43 | 170,680 |
| CZ | 149,151 | 2.46 | 43 | 1,355,954 | MT | 2,124 | 4.79 | 43 | 20,295 |
| DE | 605,144 | 8.44 | 43 | 6,225,191 | NL | 95,863 | 6.56 | 38 | 854,251 |
| DK | 37,910 | 15.77 | 43 | 445,595 | PL | 364,894 | 1.99 | 24 | 1,896,450 |
| EE | 18,746 | 1.96 | 43 | 168,557 | PT | 82,543 | 2.62 | 43 | 753,088 |
| ES | 339,994 | 3.29 | 43 | 3,147,559 | RO | 152,828 | 1.07 | 80 | 2,477,822 |
| FI | 57,198 | 8.22 | 43 | 585,913 | SE | 81,846 | 6.39 | 43 | 808,539 |
| FR | 353,983 | 8.39 | 26 | 2,434,667 | SI | 19,983 | 3.76 | 43 | 186,867 |
| GR | 58,548 | 3.29 | 43 | 542,046 | SK | 60,858 | 1.85 | 43 | 545,925 |
| HU | 124,694 | 1.69 | 32 | 840,286 | UK | 322,236 | 7.12 | 55 | 4,003,603 |
| IE | 27,242 | 8.52 | 43 | 280,679 | TOT | 3,602,583 | | | 34,022,363 |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations.

On the basis of the estimated number of new entrants each year (422,731) and the total number of drivers (3,602,583) we estimate that 11.7%, or € 4 million, of these costs are borne by new drivers and € 30 million by existing drivers.

³⁰² Based on figures of the active vehicle population and Consultation's own calculations, see paragraph 2.4.2

³⁰³ Number of driver exempt are calculated on the basis of the results of the Consortium questionnaire. Where values were missing, the average was used as a proxy.

³⁰⁴ Based on figures of the active vehicle population and Consultation's own calculations, see paragraph 2.4.2

³⁰⁵ Number of driver exempt are calculated on the basis of the results of the Consortium questionnaire. Where values were missing, the average was used as a proxy.



Administration costs for enterprises

Administrative costs are defined as the costs incurred by a normally efficient enterprise or individual in meeting legal obligations to provide information on its action or production, either to public authorities or to private parties³⁰⁶. In the case of Directive 2003/59/EC we have defined as administrative costs, in addition to the described administrative costs associated with initial and periodic training, the costs for enterprises to maintain an administration on training of staff, including registration, reporting and monitoring of training followed by staff.

The following assumptions were made to estimate administrative costs for enterprises:

- For the calculation of administrative costs at enterprises, we have consulted the panel of road transport companies that participate in the quarterly Panteia monitoring system of costs, revenue and transport performance in the Dutch road transport sector. Panel members indicated an average administrative burden of 2 hours per driver per year. We take this value as a proxy for the administrative burden in all EU Member States.
- For the hourly wages we use the Panteia study on road haulage³⁰⁷, that presents average driver costs for selected countries. After consultation with the Panteia panel of road transport companies, we increased these wage costs with 10%, reflecting that, on average, wages of administrative staff involved in the control and administration of driver training is estimated at about 10% higher than driver wages.
- For the calculation of the administrative cost we make use of our calculation of the number of active drivers holding a C and/or D driving license, excluding exemptions.

Administrative costs for enterprises are estimated at € 200 million per year. The following table shows the detailed calculations.

Table 52 Administrative costs for enterprises, per year (€)

| | Nr of active drivers with C and/or D driving license ³⁰⁸ , excluding exemptions ³⁰⁹ | Hourly wages administrative staff | Total costs administrative costs for drivers, per year | | Nr of active drivers with C and/or D driving license ³¹⁰ , excluding exemptions ³¹¹ | Hourly wages administrative staff | Total costs administrative costs for drivers, per year |
|----|---|-----------------------------------|--|----|---|-----------------------------------|--|
| AT | 59,005 | 31.02 | 3,660,300 | IT | 371,578 | 31.27 | 23,241,555 |
| BE | 75,052 | 33.37 | 5,008,300 | LT | 31,333 | 5.65 | 354,318 |
| BG | 83,329 | 21.72 | 3,619,498 | LU | 3,424 | 37.44 | 256,396 |
| CY | 3,796 | 19.64 | 149,071 | LV | 19,280 | 5.98 | 230,749 |
| CZ | 149,151 | 22.52 | 6,718,523 | MT | 2,124 | 15.80 | 67,086 |
| DE | 605,144 | 30.41 | 36,799,281 | NL | 95,863 | 32.18 | 6,168,784 |
| DK | 37,910 | 30.37 | 2,302,908 | PL | 364,894 | 26.32 | 19,207,401 |
| EE | 18,746 | 8.59 | 322,092 | PT | 82,543 | 10.63 | 1,754,210 |
| ES | 339,994 | 28.44 | 19,340,700 | RO | 152,828 | 23.13 | 7,071,016 |
| FI | 57,198 | 33.52 | 3,834,223 | SE | 81,846 | 35.52 | 5,814,521 |
| FR | 353,983 | 30.44 | 21,548,757 | SI | 19,983 | 29.50 | 1,179,154 |
| GR | 58,548 | 19.03 | 2,228,325 | SK | 60,858 | 23.33 | 2,839,238 |
| HU | 124,694 | 0.00 | 6,058,150 | UK | 322,236 | 28.41 | 18,309,779 |

³⁰⁶ Commission Impact Assessment Guidelines, 15 January 2009.

³⁰⁷ Panteia (2013): Cost comparison and cost developments in the European road haulage sector

³⁰⁸ Based on figures of the active vehicle population and Consultation's own calculations, see paragraph 2.4.2

³⁰⁹ Number of driver exempt are calculated on the basis of the results of the Consortium questionnaire. Where values were missing, the average was used as a proxy.

³¹⁰ Based on figures of the active vehicle population and Consultation's own calculations, see paragraph 2.4.2

³¹¹ Number of driver exempt are calculated on the basis of the results of the Consortium questionnaire. Where values were missing, the average was used as a proxy.

| | Nr of active drivers with C and/or D driving license ³⁰⁸ , excluding exemptions ³⁰⁹ | Hourly wages administrative staff | Total costs administrative costs for drivers, per year | | Nr of active drivers with C and/or D driving license ³¹⁰ , excluding exemptions ³¹¹ | Hourly wages administrative staff | Total costs administrative costs for drivers, per year |
|----|---|-----------------------------------|--|------------|---|-----------------------------------|--|
| IE | 27,242 | 24.29 | 2,088,041 | TOT | 3,602,583 | | 200,172,377 |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations

Implementation Costs (IC) for public administrations.

The Implementation Costs for public administrations of the Member States are based on the following actions and consequent resources spent on this by public administrations:

- Certification of training centres.
- Enforcement actions.

Below the Consultant presents an estimate of these implementation costs. These estimates are based on limited data, and used by the Consultant to give an indication of the magnitude of the implementation costs in relation to total costs related to the Directive. Depending on this magnitude the Consultant will conclude whether it is useful to spend more resources to additional information collection and recalculation.

Certification of training centres and quality control

The certification of training centres and quality control of training provided is an activity of public administrations. The majority of costs for these tasks are linked with personnel costs. However, there is almost no information on how and if these tasks are carried out in the Member States, and therefore there is no information on the number of staff needed for these tasks in the Member States.

The only information available is from the Netherlands and Belgium. In the Netherlands the authorities employ around 8 FTEs for certification and quality control of 900 certified training centres, which represents 0.0089 FTE per training centre. In Belgium our information shows that around the same number of FTEs is employed for approximately the same magnitude of drivers, though the number of training centres is not known for Belgium.

Because we estimate the number of training centres involved in CPC training in the EU at 14,296 (see section 4.5.3), the number of FTE involved in certification and quality control could be around 127. Via a similar exercise, based on the number of FTE in relation to the number of drivers, our calculations result in 301 FTE needed for certification and quality control.

To calculate wage costs of FTE involved, we make use of data available from Eurostat on the average gross annual earnings in the business economy (2008-2011)³¹² and key figures from AOS-studley³¹³ on the indirect costs per FTE. Based on the above, we calculate the certification and quality control costs of training centres at a broad range of € 4 million to € 11 million per year. This figure needs to be used as a maximum. In the tables we use the average of € 7 million.

Enforcement actions

The costs linked to enforcement refers to checking professional drivers whether they are in the possession of a valid certificate. From personnel contacts with TISPOL, it became apparent that currently, no active enforcement actions are undertaken in either of the Member States, at least not at the level of the highway or federal police. Driver licenses and certificates are checked during other actions that are however aimed at for example

³¹² Eurostat, 'Average gross annual earnings in the business economy, 2008-11 (1)' (Eurostat 2013)

³¹³ AOS Studley, 'Occupier Cost Index' (AOS Studley 2013)



vehicle loading, social legislation, etc. On the basis of this information we assume no direct attributable costs for enforcement.

Summary Regulatory Costs (CC) for enterprises / drivers / trainees / governments

The next table shows the summary of the results on total Regulatory Costs (CC) for enterprises / drivers / trainees / governments:

Table 53 Summary compliance costs for enterprises, drivers and trainees, in million € per year

| | Enterprises | Drivers | Trainees ³¹⁴ | Governments | Total |
|----------------------------|-------------|---------|-------------------------|---------------------|-------|
| Substantive Costs (SC) | 582 | 163 | 803 | n.a. ³¹⁵ | 1,548 |
| Administrative Costs (AC). | 200 | 30 | 4 | n.a. | 234 |
| Implementation costs | n.a. | n.a. | n.a. | 9 | 9 |
| Total | 782 | 193 | 807 | 9 | 1,791 |

Source: Consortium questionnaire Survey and CIECA (2010), ETF/IRU (2013), consortium calculations

The Consultant concludes that the implementation costs are only a fraction of the estimated total costs related to the Directive, and concludes that it is not efficient to spend more resources on further detailing the calculation of implementation costs.

³¹⁴ Administrative costs for trainees are taken into account in the calculation of administrative costs for all drivers.

³¹⁵ The contribution some governments (DK, LU) pay for training is included under implementation costs.

Annex 4 Consortium Survey questionnaires



QUESTIONNAIRE Implementation of Directive 2003/59/EC

Country:

This questionnaire contains information on the implementation of Directive 2003/59/EC in your country. The information was collected via sources, such as the internet, the CIECA 2010 and the IRU/ETF 2012 surveys, and the ProfDRV project.

You are kindly requested to **verify, update and supplement the information**, and send it back to Janos Ferencz of Panteia **within three weeks**, preferably by using e-mail : j.ferencz@panteia.nl

To help process the replies to this questionnaire, please provide any written information in one of the EU official languages, but preferably in English.

CONTACT PERSON FOR QUESTIONS REGARDING THIS QUESTIONNAIRE

Name:

Authority / Organisation:

Telephone:

Email:



1 Exemptions

Q1: Are there any exemptions in your country that go beyond the exemptions as defined by the Directive? And if so, could you please describe these exemptions, and describe why these exemptions were introduced?

Q2: Could you give an estimate of the percentage of drivers of buses or trucks that are exempt by article 2 of the Directive in your country? (Please indicate the appropriate answer by replacing the "0" with an "X").

| | |
|--|---|
| Number of drivers of buses or trucks that are exempt | 0 Less than 2% of the total number of drivers |
| | 0 Between 2 and 5% of the total number of drivers |
| | 0 Between 5 and 10% of the total number of drivers |
| | 0 Between 10 and 20% of the total number of drivers |
| | 0 More than 20% of the total number of drivers |

2 Initial Qualification

Q3: Could you please check the information for your country on initial qualification in the table?

| | Yes | No |
|----------------------------|-----|----|
| Course attendance and test | | |
| Test only | | |
| Both | | |

| Course attendance and test, non accelerated | |
|---|---------------------|
| Nr of hours course attendance |hours |
| Of which driving |hours |
| Of which allowed in simulator |hours |
| Test written or oral | Written / Oral |

| Course attendance and test, accelerated | |
|---|----------------|
| Nr of hours course attendance |hours |
| Of which driving |hours |
| Of which allowed in simulator |hours |
| Test written or oral | Written / Oral |



| Test only | | |
|------------------------------|----------------------------|----------------|
| Duration of theoretical test | | hours |
| Practical test | Duration of driving test | min |
| | Duration of practical test | min |

Elements of the training course for initial qualification

Content of the training

Q4: *Could you please verify the below information on the content of the training course, and amend it if necessary?*

Q5: *To what extent is it necessary to follow training courses covering the following subjects to receive a driving license and to receive a CPC (please mark the boxes as appropriate)?*

| Topic | Driving license | | CPC | |
|--|-----------------|--------------|----------|--------------|
| | Required | Not Required | Required | Not Required |
| Safety: Speeding and inappropriate speed | | | | |
| Safety: Tailgating | | | | |
| Safety: Driver fatigue | | | | |
| Safety: Driving time & rest | | | | |
| Safety: Transport of dangerous goods | | | | |
| Safety: Blind spots & use of technology | | | | |
| Safety: Intersections / right of way | | | | |
| Safety: (low-speed) Manoeuvring | | | | |
| Safety: driving in built-up areas | | | | |
| Optimize fuel consumption (eco-driving) | | | | |
| Loading (general) | | | | |
| Loading: Weight & overload | | | | |
| Loading: Securing of loads, stowage | | | | |
| Characteristics of vehicle transmission | | | | |
| Technical characteristics and operation of the safety controls | | | | |
| Passenger comfort and safety | | | | |
| Vehicle: Roadworthiness & maintenance | | | | |
| Enhancing the image of the company/profession | | | | |



National syllabus

Q6: Is there a national syllabus? If so, please elaborate on its structure and content.

Simulators

Q7: Is the use of simulators allowed? Are these simulators certified? What kind of simulators are used? Is there a definition of “top-of-the-range simulator”?

E-learning

Q8: Is e-learning allowed? And if so, could you give an indication about the importance of e-learning (the number of e-learning hours allowed, or a percentage of e-learning allowed)?

3 Periodic Training (PT)

Q9: Could you please check the information on periodic training in the table?

| Deadline for completing the first periodic training | Date |
|---|------|
| Bus drivers | |
| Truck drivers | |

| Distribution of periodic training hours | |
|---|--|
| 35 hours in one single session | |
| 35 hours split into 5 sessions of 7 hours | |
| Other methods | |

Elements of the training

Content

Q10: Please describe the content of the course. What training does it involve: theoretical, practical or both? If it involves a theoretical training, what is the content of the training? If it involves a practical training, what is the scope and duration of the training?

Q11: Which training elements are required or not required in the periodic training (please mark the box as appropriate)?

If this is the same for periodic training as for initial qualification, please indicate that here. If not, please fill in the table.

| | Yes | No |
|-----------------------------------|-----|----|
| Same as for initial qualification | | |

| Topic | Periodic training | |
|--|-------------------|--------------|
| | Required | Not Required |
| Safety: Speeding and inappropriate speed | | |
| Safety: Tailgating | | |
| Safety: Driver fatigue | | |
| Safety: Driving time & rest | | |
| Safety: Transport of dangerous goods | | |
| Safety: Blind spots & use of technology | | |
| Safety: Intersections / right of way | | |
| Safety: (low-speed) Maneuvering | | |
| Safety: driving in built-up areas | | |
| Optimize fuel consumption (eco-driving) | | |
| Loading (general) | | |
| Loading: Weight & overload | | |
| Loading: Securing of loads, stowage | | |
| Characteristics of vehicle transmission | | |
| Technical characteristics and operation of the safety controls | | |
| Passenger comfort and safety | | |
| Vehicle: Roadworthiness & maintenance | | |
| Enhancing the image of the company/profession | | |

Simulators

Q12: Is the use of simulators allowed? Are these simulators certified? What kind of simulators are used? Is there a definition of “top-of-the-range simulator”?

E-learning

Q13: Is e-learning allowed? And if so, could you give an indication about the importance of e-learning (the number of e-learning hours allowed, or a percentage of e-learning allowed)?

Training followed by a test?

Q14: Is there a test after the completion of the periodic training? If so, please describe its structure, content, and duration.

Certification

Q15: Is there a certificate being issued for partial completion of periodic training?

4 Mutual Recognition / Code 95 / Driver Qualification Card

Q16: Does your country accept a (partial) periodic training already carried out in another EU Member State? Could you please describe this?



Q17: Do you know of any problems in other countries concerning the acceptance of (partial) periodic training carried out in your country? Could you please describe these?

Q18: Please describe any further problems that you may find in relation to mutual recognition.

Q19: Does your country accept to mark the code 95 on a driving license on the basis of a CPC issued by another Member State?

Q20: And if your country marks code 95 on the basis of a CPC issued by another Member State, which validity date will be used? Please elaborate on this, also covering the issue of possible different validity dates of the driving license and the code 95

Q21: Does the country use a Code 95 in the driver license or does it issue a separate Driver Qualification Card? Or both?

Q22: If your country marks code 95 on the driving license, what do you do with drivers holding a foreign driving license, who have completed the periodic training in your country? Do you issue a Driver Qualification Card? Please elaborate on this?

5 Previous / other existing training and testing for drivers

Q23: Before the implementation of Directive 2003/59/EC, was there in your country an obligation to follow, besides receiving the driving license, an additional training?

Q24: Is it possible in your country to combine CPC training or testing with other forms of training, such as a VET-school based system?

6 Operation of the system

| | |
|---|--|
| Q25: Since when is the system of initial qualification and periodic training according to the Directive in actual operation ? | |
| Q26: How many new drivers acquired initial qualification via course attendance and a test since the start of the operation of the system? | |
| Q27: How many new drivers acquired initial qualification via only tests since the start of the operation of the system? | |

| | |
|---|--|
| Q28: How many drivers were certified by a CPC after following the compulsory periodic training since the start of the operation of the system? | |
|---|--|

7 Approved training courses and centres

| | |
|--|--|
| Q29: Could you give an estimate of the number of training courses that have been CPC-approved in your country? | |
| Q30: Could you give an estimate of the number of training centres that have been CPC-approved in your country? | |

***Q31:** Could you please describe the system you use to check the quality of the approved training centres and their training programmes?*

8 Estimated prices of training and testing

***Q32:** Could you give an estimate of the average selling prices of training courses and tests?*

| | |
|---|--|
| Average selling price of the 140 hours initial training | |
| Average price of the test for the initial qualification (course and test) | |
| Average price of the test for the initial qualification (test only) | |
| Average selling price of 35 hours periodic training | |

9 Number of licensed drivers

(Please fill in the tables as complete as possible. If data from previous years are missing, please try to fill in at least the most recent year(s)).

***Q33:** How many drivers UNDER 21 YEARS OF AGE have been issued a code 95 / driver qualification card in your country?*

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------|------|------|------|------|------|------|
| C (all types) | | | | | | |
| D (all type) | | | | | | |



Q34: How many drivers have been issued a code 95 / driver qualification card in your country in total?

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------|------|------|------|------|------|------|
| C (all types) | | | | | | |
| D (all type) | | | | | | |

10 Enforcement

Q35: The following questions are intended to get some insight in the control and enforcement of the Code 95 and the Driver Qualification Card, and possible non-compliance / abuse / fraud. Please try to fill in the table as complete as possible..

| Enforcement | 2009 | 2010 | 2011 | 2012 |
|---|------|------|------|------|
| How many foreign drivers have been checked for the Code 95 or the Driver Qualification Card? | | | | |
| How many foreign drivers have been in some way penalized for not having a Code 95 or a Driver Qualification Card? | | | | |
| How many violations on the absence of a Code “95” or driver qualification card were reported? | | | | |
| How many violations on driving hours/resting time legislation were reported? | | | | |
| How many forged Code “95” or driver qualification cards were reported? | | | | |
| How many fraudulent abuses of Code “95” or driver qualification cards were reported? | | | | |

**PLEASE SEND THE QUESTIONNAIRE WITHIN 3 WEEKS VIA EMAIL
TO JANOS FERENCZ:
j.ferencz@panteia.nl**

WE THANK YOU FOR YOUR CO-OPERATION



ADDITIONAL QUESTIONNAIRE TO COLLECT QUANTITATIVE INFORMATION

| | Total | Approved | Rejected |
|---|-------|----------|----------|
| Requests for a code 95 on the driving license on the basis of initial and / or periodic training followed in another country? | | | |
| Requests for a Driver Qualification Card on the basis of initial and / or periodic training followed in another country? | | | |



| | | | |
|---|--|--|--|
| Request for recognition of training courses followed in a foreign country | | | |
|---|--|--|--|

QUESTIONNAIRE

Problems with recognition of periodic Code 95-training

There are signals that there are problems with the recognition of periodic Code-95 training. Especially with training undergone in a foreign country that does not issue a Driver Qualification Card. To be able to estimate how big these problems are, Panteia is looking for data on the number of drivers that have problems with the recognition of their CPC training, or have problems working in other EU countries because of the Directive.

To enable Panteia to make an estimate of the number of drivers affected, please fill in these tables (by placing an X in the appropriate box).

| COMPLETED TRAINING | Completely agree | Agree | Neutral | Disagree | Completely disagree |
|---|------------------|-------|---------|----------|---------------------|
| There are no problems with the recognition of Code-95 training. | | | | | |
| There are almost no problems with the recognition of Code-95 training. | | | | | |
| My estimate is that only a few drivers in my country have problems with the recognition of the Code-95 training undergone in another country | | | | | |
| My estimate is that only a few dozen drivers in my country have problems with the recognition of the Code-95 training undergone in another country. | | | | | |
| My estimate is that a few hundred drivers in my country have problems with the recognition of the Code-95 training undergone in another country. | | | | | |
| There are serious problems with the recognition of the Code-95 training, affecting many drivers all over Europe. | | | | | |
| Problems on recognition of completed training affect mostly drivers in border regions | | | | | |



| PARTIAL TRAINING | Completely agree | Agree | Neutral | Disagree | Completely disagree |
|--|-------------------------|--------------|----------------|-----------------|----------------------------|
| There are no problems with the recognition of partial Code-95 training courses. | | | | | |
| There are almost no problems with the recognition of partial Code-95 training courses. | | | | | |
| My estimate is that only a few drivers in my country have problems with the recognition of partial Code-95 training. | | | | | |
| My estimate is that only a few dozen drivers in my country have problems with the recognition of partial Code-95 training. | | | | | |
| My estimate is that a few hundred drivers in my country have problems with the recognition of partial Code-95 training. | | | | | |
| There are serious problems with the recognition of partial Code-95 training, affecting many drivers all over Europe. | | | | | |
| Problems on recognition of partial trainings affect mostly drivers in border regions | | | | | |

| ESTIMATED NUMBER OF DRIVERS AFFECTED | |
|---|-------|
| My estimation of the number of drivers in my country that have problems with the recognition of completed Code-95 training is | |
| My estimation of the number of drivers in my country that have problems with the recognition of partial Code-95 training is | |

| WORKING IN OTHER COUNTRIES | Completely agree | Agree | Neutral | Disagree | Completely disagree |
|---|-------------------------|--------------|----------------|-----------------|----------------------------|
| The Code-95 training requirements has positively influenced driver's possibilities to work in other EU countries. | | | | | |

