


Task A

Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union

3 February 2014



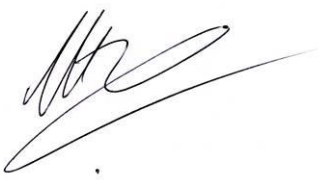
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Task A

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1 Introduction

1 Introduction

1.1 Overview

This Task A report provides a detailed description of the structure of the European road haulage market. The report aims to explain the structures, trends and factors that underline the current road haulage market. The topics covered are the market situation, current legislation, enforcement, road safety, driver rest areas and vehicle crime, cost structures, contracting, cabotage, road user charging, driver and staff issues, use of lower cost labour, vehicle specifications and the use of technology. Whilst much information is available through official national and European (EU) statistical sources, the nature and topics under investigation have demanded a large degree of primary research and collection of empirical evidence. This report reveals the extent to which there are differences in the conditions under which hauliers operate in different Member States, i.e. the extent to which the market for road haulage services is not completely harmonised, the presence of unfair competition and competitive advantages of both companies and countries and the level of market distortion. Task B report - Analyse the State of the European Road Haulage Market, Including an Evaluation of the Effectiveness of Controls and the Degree of Harmonisation, goes on to assess and evaluate the degree of harmonisation achieved to date in the EU market for road haulage services.

In addition, the study has been informed and specific areas of investigation identified by the High Level Group (HLG) of experts established by the Commission to assess the state of the market and make recommendations about what course of actions should be pursued to further integrate the market. The AECOM study team has worked closely with the HLG, in particular with the analysis of the Group's questionnaire seeking views from stakeholders on a range of market issues, and with investigations directly with hauliers in countries and topics specified by the Group.

This close collaboration with the HLG has given specific focus to the collection and reporting of market conditions and data, including:

- Profile of caboteurs, worker movements and working conditions
- Use of lower cost labour
- Preferred enforcement regimes
- Safety related to truck parking and security
- Innovation and its restriction
- Enforcement discrepancies

This wide ranging collection of data, stakeholder comment and direct industry evidence provides the basis for the understanding of the current market situation, developments and imbalances and provides much of the basis for the further market evaluation and assessment of controls and levels of harmonisation required in Task B of the project.

1.2 Data Collection Methodology

During the course of compiling the information for the report AECOM has conducted a thorough literature search, reviewing over 300 documents produced by governments, Non-Governmental Organisations (NGOs), private business and academics. The Eurostat database has been used to provide statistical evidence to back up findings and conclusions. All of these reviews were entered into a centrally held database that acted as a document library. This Document Assessment Tool logged the volume of comments made for a particular Task subject as well as referencing the comment back to the original document. The Document Assessment Tool also allowed a comprehensive gap analysis to be undertaken. The conducted gap analysis on the information available from these data sources allowed for identification of subjects that were proving difficult to research. Going forwards, the interviews and consultation undertaken by AECOM were used as opportunities to address the identified gaps and secure other key information.

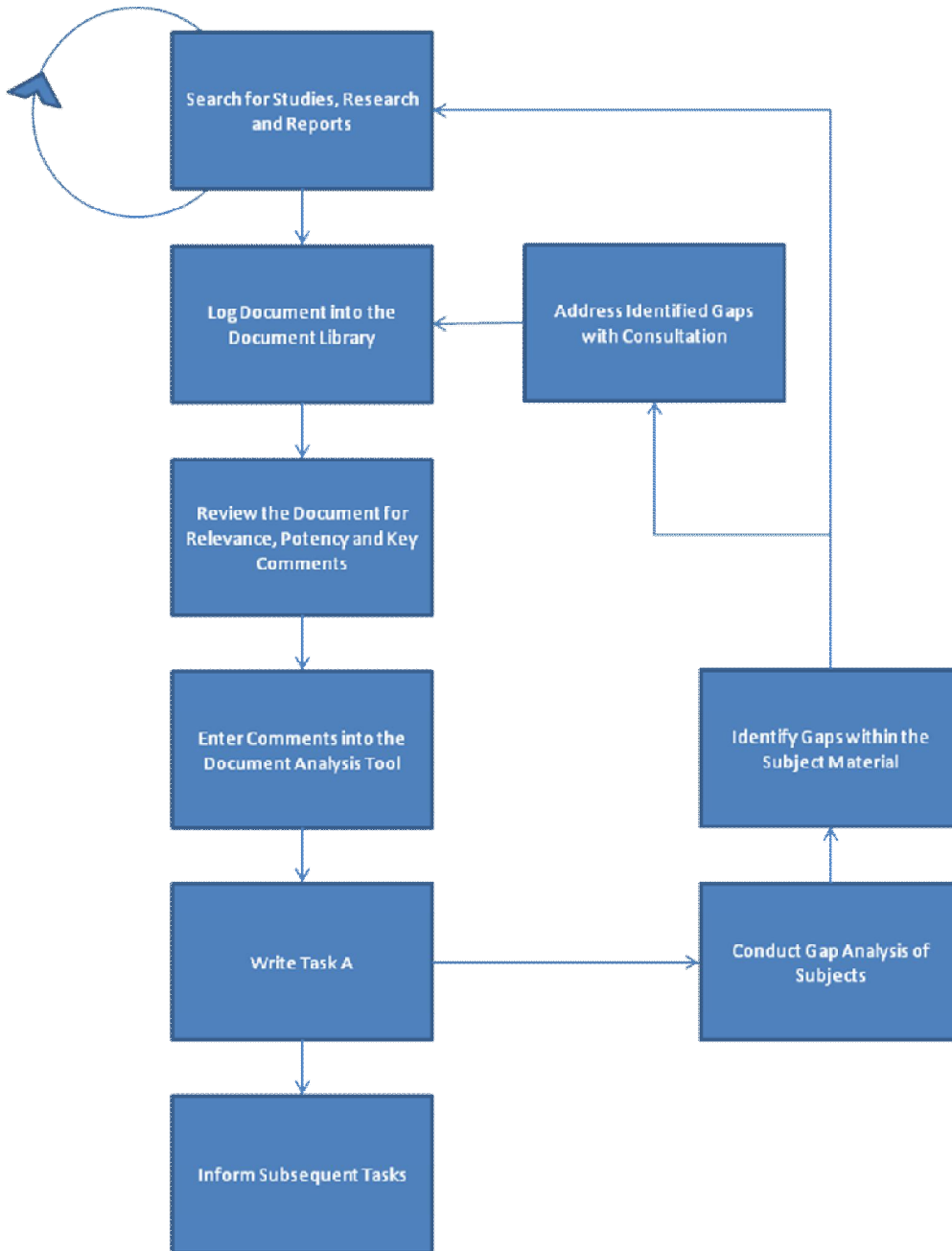


Figure 1.1 – Task A Methodology Flow Chart

It is recognised that there is not enough statistical evidence to support every aspect discussed in this report, therefore, to supplement this research, and under the direction of the HLG, AECOM has conducted semi-structured interviews with 21 hauliers in seven Member States: Netherlands, France, Hungary, Poland, Germany, Portugal, Denmark as well as Norway.

The haulier names are not included in this document but Table 1.1 details the sectors and company size of each interviewee. These interviews provided insight into the market from an operator's viewpoint across a broad cross section of the industry. Throughout the report we have cited comments made by hauliers relevant to a particular topic area (and indicated by a footnote). It is recognised that whilst these haulier comments provide valuable insight, the comments made are the opinion of the haulier/company and differing opinions may exist. As such these individual comments are not used as main references for the study conclusions.

Country/Haulier	Sectors	Size
Netherlands		
Haulier 1	Dry bulk, tankers, construction, food	Large
Haulier 2	Tanktainers, intermodal, ADR Chemicals, food, groupage	Large
Haulier 3	Food, Intermodal	Large
France		
Haulier 1	General haulage, automotive	Large
Haulier 2	Parcels	Large
Hungary		
Haulier 1	Construction, packaging, electrical components, raw materials	Small
Haulier 2	Freight forwarding, general haulage, pallets	Small
Haulier 3	ADR Chemicals, retail	Large
Poland		
Haulier 1	ADR Chemicals, Petroleum	Medium
Haulier 2	General haulage, abnormal loads	Large
Haulier 3	Automotive	Large
Haulier 4	Food	Large
Haulier 5	Fashion, retail	Large
Germany		
Haulier 1	Automotive, food	Large
Haulier 2	Building sector, food	Medium
Portugal		
Haulier 1	General haulage, automotive, food	Large
Haulier 2	Pallets	Medium
Haulier 3	Integrated 3PL, food/drinks, automotive	Large
Denmark		
Haulier 1	General haulage	Medium
Norway		
Haulier 1	General haulage	Medium
Haulier 2	General haulage	Medium

Table 1.1 – Interview Hauliers

In addition, semi-structured interviews have been conducted with the following trade associations:

- Denmark – DV (Danish Road Haulage Association)
- Netherlands – TLN (Transport Logistic Netherlands)
- Poland – ZMPD (Polish Haulage Association)
- Germany – BGL (German Haulage Association)
- Portugal – ANTRAM (Portuguese Haulage Association)
- Bulgaria – AEBTRI (Bulgarian Haulage Association)
- ASECAP – European Motorway Concessionaries Association
- IRU – International Road Transport Union

Whilst a number of these organisations had already completed the HLG's questionnaire, further engagement was fruitful in terms of probing additional detail and also securing support for direct interviews with members as part of the haulier engagement process.

1.3 High Level Group

As described in Section 1.1, AECOM's research has incorporated the work conducted by the European Commission High Level Group; which has sought the views of industry representatives including freight forwarders, hauliers, small businesses, social organisations and governments. The High Level Group used a questionnaire followed by stakeholder hearings for shippers and forwarders and for 'social' organisations (unions, small enterprises, environmental and training groups). A further public hearing took place at the end of February 2012. The Group's questionnaire sought to identify policy, views and opinion on the following; quality in the road haulage sector; social issues; enforcement; road user charging; driving restrictions and cabotage. This questionnaire received 87 responses which have been analysed. The questionnaire findings and stakeholder hearings have been used to support Task A data collection.

1.4 Structure of the Report

The report is structured as follows:

- **Market Situation:** This chapter gives an overview of the road haulage sector including ownership, number of vehicles, levels of trade movements by road freight, domestic & international. This will also establish various strengths and weaknesses in the structure of the sector and where possible the causes of these.
- **Legislation:** This chapter will include an overview of the relevant EU legislation in force and will discuss how these major laws affect the sector & feedback on interpretation of laws. Issues discussed include laws affecting staff, vehicles and operations.
- **Enforcement:** This chapter considers enforcement regimes in terms of violations such as Driver's Hours offences, overweight or unroadworthy vehicles, and their varying level of fines in many Member States are thought to be different and this makes achieving a truly fair, European haulage sector some way off.
- **Road Safety:** This chapter considers casual factors of incidents, and the risks of international driving. Apart from road incidents there are other incidents on the road that can put a driver's safety at risk such as crime.
- **Driver Rest Areas & Vehicle Crime:** This chapter reviews the availability of Lorry Parks, charges and facilities, and discusses other initiatives in this area.
- **Costs:** This chapter features a review of transport costs including staff remuneration rates, fuel, and vehicle costs amongst other costs. A comparison in costs between Member States has been conducted. The differences between statistical data and actual practice are also considered.
- **Contracting:** This chapter investigates the various types of contracts used in road haulage for example between hauliers and shippers, and hauliers and sub-contractors. In addition, the chapter discusses 3rd party haulage, sub-contracting, the role of a 4PL, and written versus unwritten contracts. We will discuss the degree of consolidation in the market and explore the extent of subcontracting to small operators. We discovered instances where sub-contractors acting as sole traders are placed in the difficult position of working exclusively for one principal without the protections that would come from being employees. We will identify and describe the nature and role of strategic alliances between hauliers, shippers and freight forwarders and discuss current trends in the sector. We will also discuss developments in typical contracting terms and conditions, the negotiation of individual contracts versus the use of fixed freight forwarders' agreements and the typical duration of contracts. Lastly we discuss the impact of developments on competitiveness, flexibility and stability of the sector.
- **Cabotage:** The chapter outlines current levels of cabotage and seeks to answer a number of questions including how cabotage works in practice, and to what extent is it pre-planned and optimised in international transport operations. We consider the impact of EU cabotage rules changes in May 2010 and to what extent these rules (in particular the max 3 cabotage operations in seven days rule) limit flexibility for hauliers.
- **Road User Charging:** This chapter considers the lack of standardisation across Europe regarding the various charging systems.
- **Drivers & Staff:** This chapter briefly considers population demographics, driver shortages, use of agencies, working hours, and also includes training. This chapter also discusses the practice of some companies using labour resources from newer Member States where labour costs are still relatively low such as Poland and Hungary.

- **Vehicle Specification:** This chapter considers the range of different rules affecting vehicle weight & dimensions continue to be an ongoing issue such as longer and heavier vehicles or lower height trailers to meet 4m rules. Briefly discussed are alternative fuels, hybrids and electric vehicles.
- **Innovation and the Use of Technology:** This chapter looks at innovation within the road freight industry such as subcontracting policy, vehicle specifications, pricing models, intelligent transport systems and alternative fuels.
- **Other Comments and Observations:** This chapter covers issues not covered in other sections, including vehicle bans, low emission zones, and parking fines.
- **Conclusions:** This chapter brings together the important outputs and comments in order to inform Tasks B & D.

In some sections this report makes reference to EU-27, EU-15 and EU-12.

EU-27 means all 27 Member States of the European Union.

EU-15 means the collection of 15 Member States of the EU prior to the accession of 10 new Member States on 1st May 2004. Member States belonging to the group of EU-15 are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

EU-12 means the collection of 12 Member States that all joined the EU after the 1st of May 2004. Member States belonging to the group of EU-12 are: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, Slovenia.

Appendices for the following information are also provided:

1. 27 x 27 matrices for level of trade conducted by and taking place in each Member State
2. Country Summary notes for each of the countries visited

2 Market Situation

2 Market Situation

2.1 Introduction

Establishing a fair but competitive market across Europe is essential in providing the basis for an efficient, modern industry. This chapter gives an overview of the structure of the road haulage sector on an EU-27 wide basis and details the levels of trade movements by road freight in various markets: domestic, international and cabotage. It identifies various strengths and weaknesses in the structure of the sector and where possible the causes of these.

The international road freight (haulage) sector dominates the provision of bilateral and cross-trade goods movement across Europe. It provides responsive and cost effective out-sourced transport solutions for shippers across the EU and beyond. Access to the road haulage market and certain social and safety conditions (such as drivers' hours) are regulated at an EU level. There are large variations in operational cost structures, most notably fuel and driver wages. Whilst this provides competitive advantages for some hauliers and preferential freight rates for the shipper, the opportunity for further market liberalisation in the form of relaxation of cabotage controls is not universally welcomed by the haulage community.

2.2 Transport Companies

Figure 2.1 shows the number of goods road transport enterprises in selected countries. This shows that there has been strong growth in the number of companies in Poland and Bulgaria and a reduction in Slovenia, Finland and Norway. The number of enterprises in the Baltic states of Estonia, Latvia and Lithuania has neither increased nor decreased significantly.

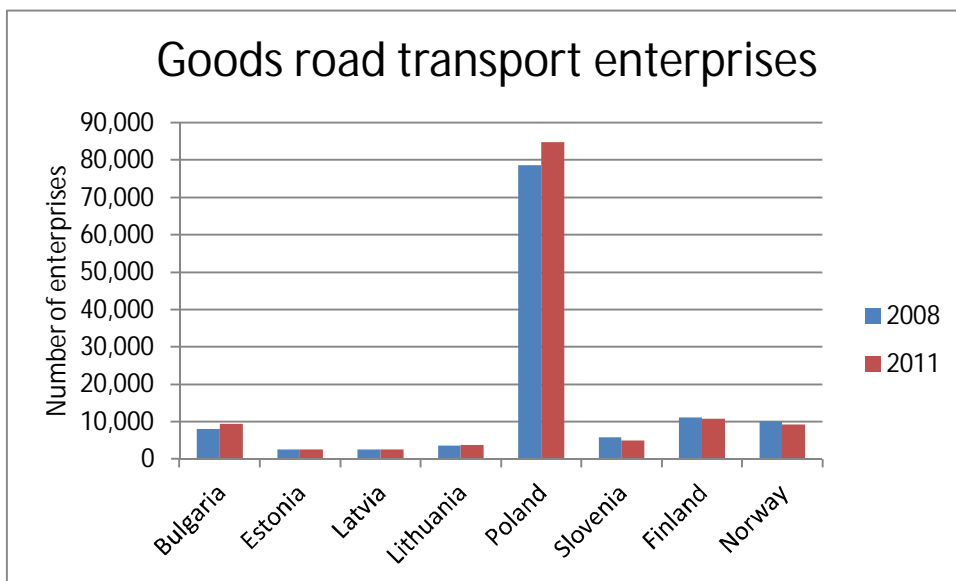


Figure 2.1 – Number of Freight Transport by Road Enterprises in Selected Member States and Norway (2008 and 2011 comparison)¹.

Recent years have seen the rise in both the size and importance of pan European logistics ‘integrators’ such as DHL, Schenker and Norbert Dentressangle. The top 10 third party logistics providers (3PLs) in Europe reported combined revenue of €45 billion in 2010², approximately 5% of the total logistics market³. Large multimodal 3PLs help to meet the demand for high quality,

¹ Eurostat, [road ec entemp], 2013, *Eurostat*

² Who's who in European Logistics, 2011, Analytiqa

³ Top 100 in European Transport and Logistics Services, 2011/2012, Peter Klaus, Christian Kille, Martin Schwemmer, Fraunhofer, DVV Media Group

reliable and predictable door-to-door truck services. Furthermore, shippers are forming consortiums and alliances which increase supply chain concentration⁴. However, the cost pressures for logistics providers means that many rely heavily on subcontracting⁵ work to small enterprises and owner-drivers who provide low margin, traction only services. This has a tendency to shift the responsibility for social security payments and employment benefits to the subcontractor and some self-employed drivers are indeed working as 'hidden' or false self-employed employees⁶. Issues relating to drivers and staff are discussed in Chapter 11. Subcontracting is discussed in Chapter 8. Indeed, with the notable exceptions of logistics-centric countries such as the Netherlands and Luxembourg, the market is typified, especially in southern and Eastern Europe, by small enterprises of 1-5 employees⁷.

Figure 2.2 shows a comparison of the average number of employees for various Member States between 2008 and 2010. Only Luxembourg and Netherlands have an average company size of more than 10 employees which indicates the dominance of small enterprises in the European market.

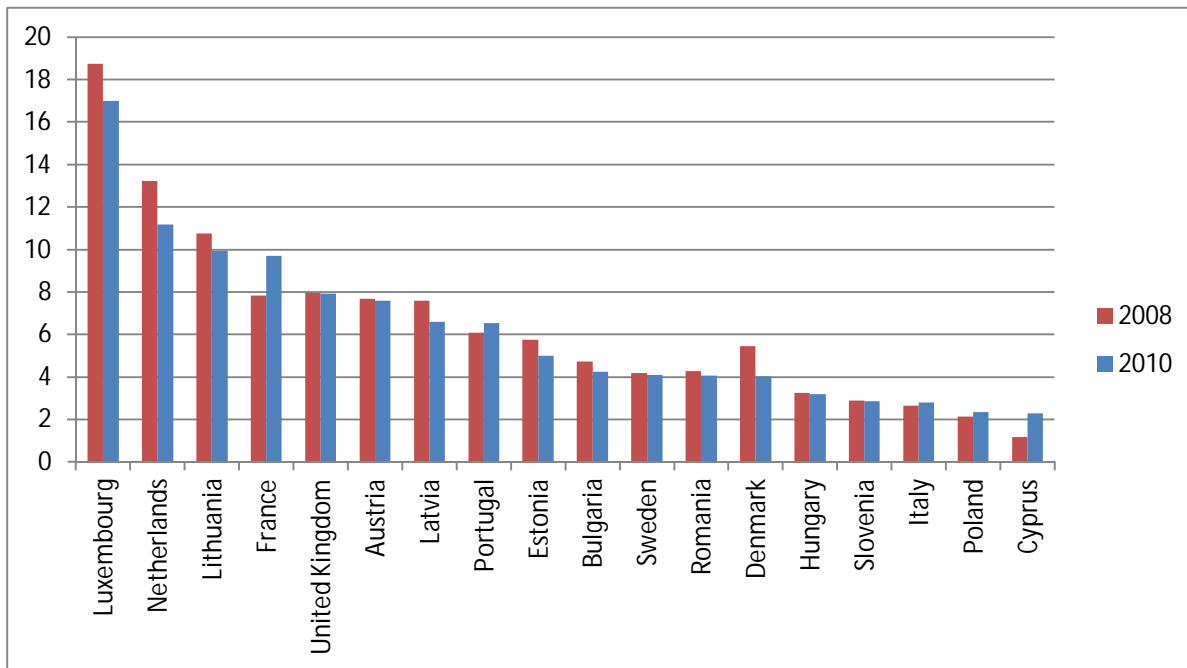


Figure 2.2 – Average Number of Employees of Freight Transport by Road Enterprises 2008 and 2010⁸

Furthermore, Figure 2.3 shows the importance of hire and reward operators in most EU domestic markets. In international transport hire and reward operators are responsible for up to 95% of goods moved. The Member States with the largest contribution by own account operators are Luxembourg, Cyprus, Bulgaria and Romania. This suggests that the newer Member States are still transitioning towards a more modern logistics system whereas Luxembourg and Cyprus are small Member States whose domestic supply chains are less complex and therefore transport could be more easily undertaken by own account operators.

⁴ Freight Transport research summary, 2010, *DG Energy and Transport, Transport Research Knowledge Centre*

⁵ Interview, major pan European logistics provider, Poland, 2012, *AECOM*

⁶ Interview, Polish Haulier, 2012 *AECOM*

⁷ Average number of employees of freight transport by road enterprises, 2009, *Eurostat*

⁸ Eurostat, [sbs_na_1a_se_r2], 2012, *Eurostat*

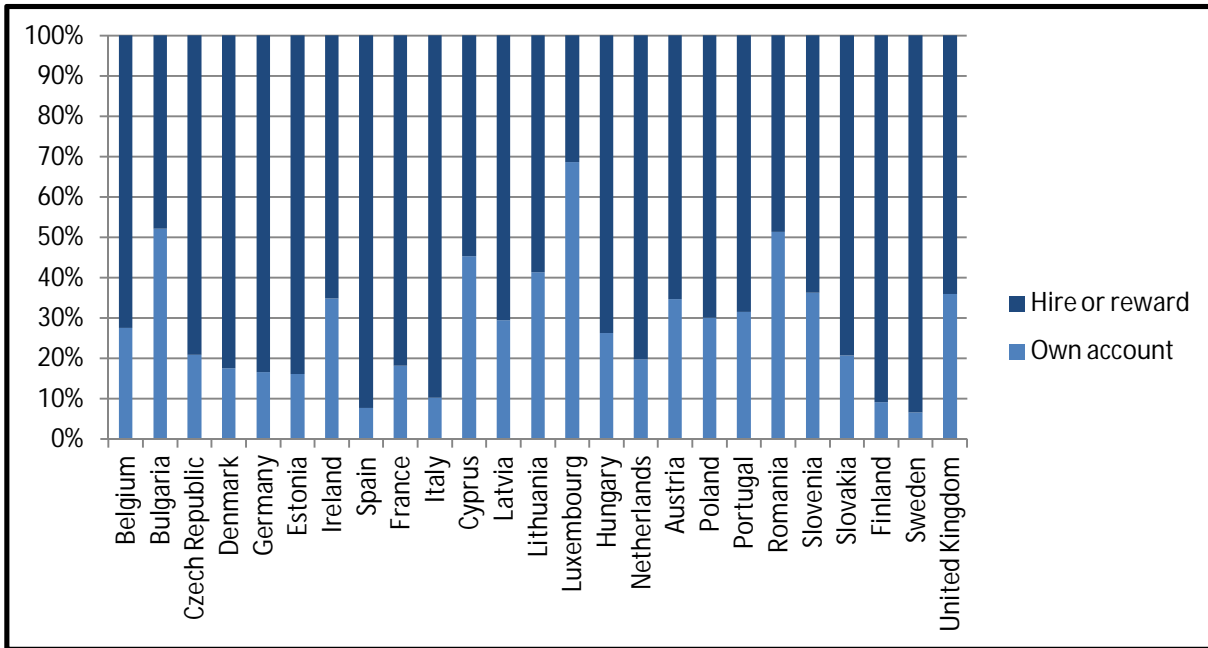


Figure 2.3 – Role of Hire or Reward and Own Account Operators for Domestic Operations, % of Tonne Kilometres⁹

Whilst hauliers have been adopting web based technology to find loads and optimise efficiency, freight integrators and forwarding ‘agents’ play an important role in the organisation of international road freight movements. CLECAT, the European Association for Forwarding, Transport, Logistics and Customs Services, has 19,000 member organisations responsible for 65% of cargo transported by road¹⁰. Although hauliers may work efficiently as individual operations, a freight forwarder or 3PL can optimise the entire supply chain, improving vehicle usage and reducing empty running. Greater consolidation of the market through the use of 3PLs and 4PLs (4th party logistics provider - an integrator that organises resources to design and run a comprehensive supply chain solution with the use of technology) can be expected as they take advantage of economies of scale and maintain downward pressure on rates. Subcontracting is a significant feature of the market, and serves to reduce the overheads of larger companies, extend geographical reach, meet periods of peak demand and increase supply chain efficiency. It is known that some companies will outsource non-profitable work to smaller companies, particularly in Eastern Europe¹¹. They are able to do this because these companies may have lower operating costs which in turn allow them to turn a profit on the cheaper job. As an indication of the difficult market conditions, the average profit margin for leading logistics providers has contracted by 0.4% between 2007 and 2011.¹² This explains the willingness of larger companies to subcontract out less profitable work and turn to more added value processes.

Therefore, the road haulage market can be characterised by a chain of hire and reward companies with large pan-European logistics companies at the top controlling the largest contracts but subcontracting much of that down the chain. At the bottom are small enterprises and owner drivers who either form small consortiums to obtain work, rely on subcontracting from larger firms or move loads identified through freight exchanges. In between these two groups are medium sized enterprises, generally operating

⁹ Eurostat, [road_go_ta_tot], 2012, Eurostat

¹⁰ www.CLECAT.org, 2012, About our Activities - CLECAT

¹¹ International Road Freight Transport in France – Driver Cost Analysis, 2009, Lumiere University

¹² Who’s who in European Logistics, 2011, Analytiqa

in niche markets that also utilise subcontracting to meet peak demand. As such the road haulage market is very inter-related but also very flexible, having the ability to quickly adjust to market demands.

2.3 Number of Vehicles

In 2010, international road haulage between EU countries totalled some 494,832 M tkm with over 250,000 Community Licences issued to international haulage operations authorising 1.4 million vehicles. From 1993, when Regulation (EC) No 881/1992¹³ on access to the market in the carriage of goods replaced existing bilateral and multilateral permit requirements, Community Licences are now required for companies wishing to conduct international transport within the EU. Vehicles may be used for any international movement between the Member State where the vehicle is registered and any other “bilateral”, and “cross-trade” between two Member States where the vehicle is not registered.

Figure 2.4 shows the number of road tractor units registered in Member States. This shows that numbers have remained relatively stable in Netherlands, numbers have contracted in Spain and Poland and Bulgaria have shown strong growth.

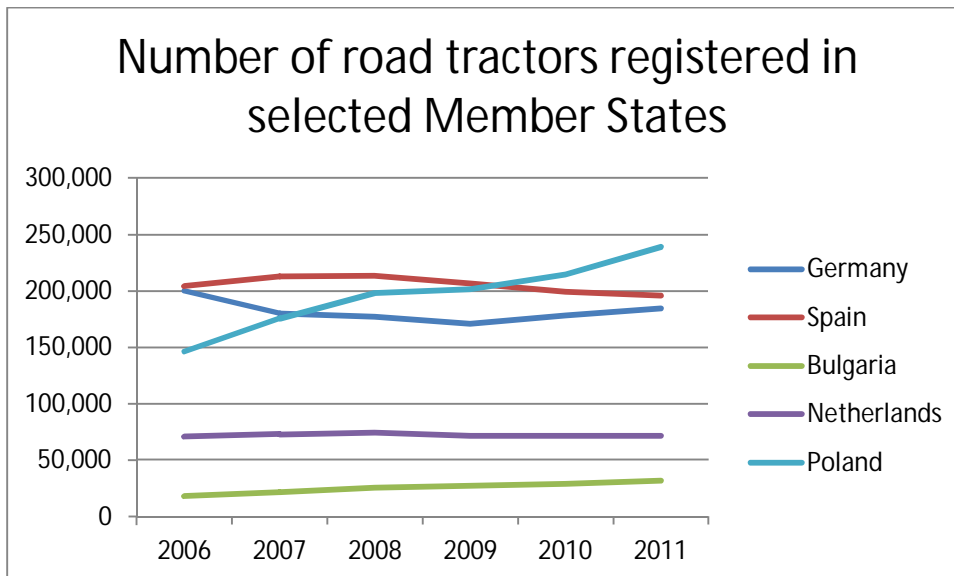


Figure 2.4 – Number of Road Tractors Registered in Selected Member States¹⁴

Figure 2.5 shows the number of semi-trailers registered in Member States, shows a similar trend to tractor units, although Germany shows a modest increase.

¹³ Regulation (EC) No 881/1992 of 26 March - on access to the market in the carriage of goods by road within the Community to or from the territory of a Member State or passing across the territory of one or more Member States, *Official Journal L 095*, 09/04/1992 P. 0001 - 0007

¹⁴ Eurostat: [road_eqs_lrstn], 2013, *Eurostat*

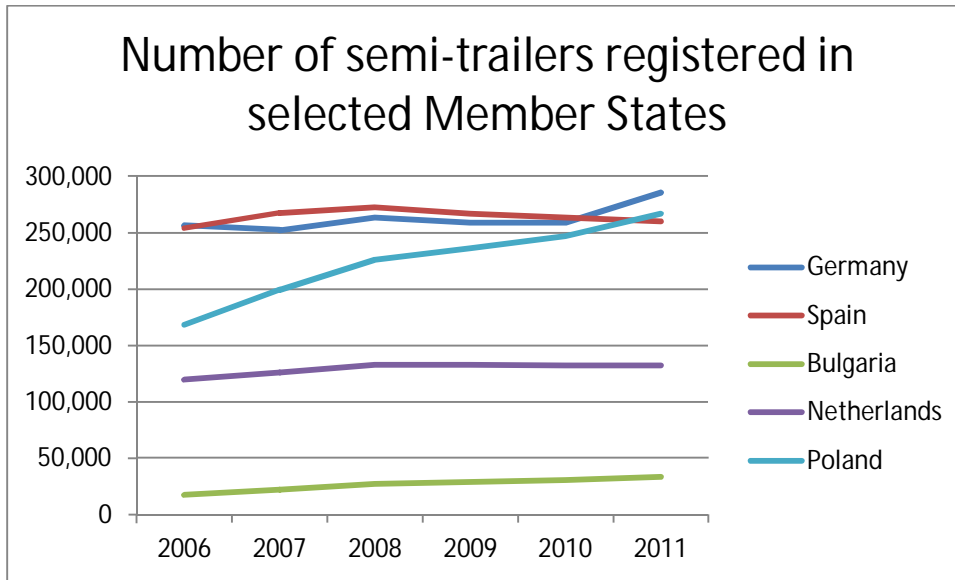


Figure 2.5 – Number of Semi-Trailers Registered in Selected Member States (data not provided by France in 2010 or Hungary in 2009 and 2010)¹⁵

In Germany there has been a decrease in the number of road tractors and a small increase in the number of semi-trailers. This is explained by hauliers attempting to utilise their road tractors more efficiently. There is an approximately 4:1 cost ratio between tractor and trailer and as such, making the best use of the tractor seems to be key to an efficient operation. By increasing the ratio of trailers to tractors there can be greater flexibility to either leave semi-trailers for loading or swapping tractors midway through a journey to reduce the number of nights a driver would have to spend away from the base of operation. Haulier interviews indicated a trend to increase the ratio of trailers to tractors, for example a Portuguese haulier has increased the number of semi-trailers to avoid empty running on one route. In addition, a UK based parcel company operates a 3:1 trailer to tractor ratio. Table 2.1 provides a comparison of the overall semi-trailer to tractor ratio in a number of Member States, this shows that the older Member States generally have a higher ratio.

Member State	Ratio
Germany	1:1.55
Spain	1:1.33
Bulgaria	1:1.04
Netherlands	1:1.85
Poland	1:1.12

Table 2.1 –Tractor to Semi-Trailer Ratio¹⁶

The growth in overall vehicle numbers is present across most of the newer Member States with the exception of Estonia. This growth in Eastern European vehicle fleets is driven partly by domestic demand and partly by international demand. Whilst the economic crisis has dampened growth in both of these markets, the competitiveness of Eastern European fleets in the international markets suggests that the number of vehicles registered in these countries may continue to grow faster than

¹⁵ Eurostat: [road_eqs_lrstn], 2013, Eurostat

¹⁶ AECOM, derived from Eurostat, 2013

Western Europe. Fleets across Europe appear to be increasing their trailer to tractor ratio to improve efficiency and reduce empty running.

Table 2.2 shows the proportion of semi-trailers that are in the largest weight categories for a variety of Member States. This shows that the majority of vehicles in the majority of countries are designed to carry load weights close to the legal limit. Latvia and Poland have seen a considerable growth in the proportion of vehicles operating in this category. Furthermore, a number of countries have been trialling and using longer and heavier vehicles for domestic transport. Vehicle specifications are discussed in more detail in Chapter 12.

Member State	Proportion	Year	Proportion	Year
Czech Republic	59%	2005	55%	2009
Spain	93%	2006	94%	2009
France	94%	2005	95%	2009
Latvia	85%	2005	97%	2010
Lithuania	48%	2005	46%	2010
Luxembourg	98%	2005	98%	2009
Netherlands	89%	2005	89%	2010
Austria	92%	2006	93%	2010
Poland	76%	2005	86%	2010
Romania	94%	2008	95%	2010
Slovenia	96%	2005	99%	2010
Finland	6%	2005	7%	2010
Sweden	94%	2005	95%	2009

Table 2.2 – Proportion of Semi-Trailers with Greater than 20 Tonne Load Capacity¹⁷

The number of vehicles is expected to increase in the EU and this growth is most likely to be concentrated in Eastern Europe. Studies have shown a strong link between economic growth and infrastructure supply¹⁸ and therefore, as road infrastructure improves and domestic and international demand increases vehicle numbers will also increase. At the same time vehicles are being used more productively, and this trend will continue as operators attempt to remain competitive by increasing efficiency. To that end, the number of semi-trailers is expected to grow at a faster rate than tractors.

2.4 Levels of Trade

As Figure 2.6 below shows, road freight accounts for 73% of all inland freight in the EU, rail 16%, inland waterway 6% and pipelines 5% account for the remaining transport by land, calculated on a tonne km basis. As such, the effective and efficient operating of the road haulage market is critical to the European economy.

¹⁷ Eurostat: [road_eqs_semitn], 2012, Eurostat

¹⁸ Hungary Sustainable Road, National Report, 2007, Istvan University

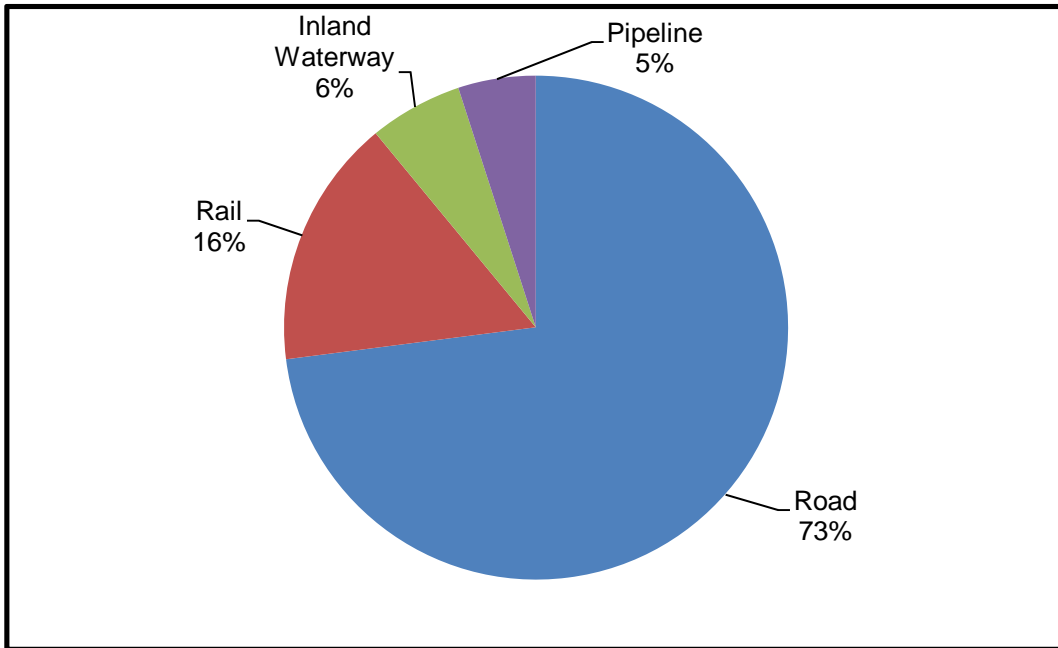


Figure 2.6 – Percentage Mode Share of EU Inland Freight Movements by tonne km¹⁹

2.5 International

International transport is much more open to competition than domestic markets. This is divided into “bilateral” and “cross-trade”. In 2010, international road freight transport between EU-27 countries totalled 494,832 M tkm lifting 768,860 thousand tonnes. A 27 by 27 matrix of these movements is available in Appendix 1.

The five largest flows in terms of M tkm and Thousand Tonnes are:

Million Tonne Kilometres	Thousand Tonnes
Germany to Poland – 16,078	Germany to Netherlands – 37,320
Poland to Germany – 15,150	Netherlands to Germany – 35,779
Spain to France – 14,233	Belgium to France – 31,109
Germany to France – 13,135	Germany to France – 26,620
France to Spain – 13,018	Poland to Germany – 24,003

Table 2.3 – Five Largest Flows in the EU²⁰

¹⁹ Road freight Transport Vademecum 2010 Report, Sept 2011, *European Commission DG for Mobility and Transport Unit D.3 – Land transport*

²⁰ Eurostat, [road_go_ia_tc], 2012, *Eurostat*

Table 2.4 shows the change in international traffic within the EU. There was a sharp decline in 2009 followed by a slight recovery in 2010. Over the five year period there is growth in traffic from the EU-12 but a decline in traffic from the EU-15 and overall.

		2006	2007	2008	2009	2010	2006-10 Growth %
From	EU-27	542,772	561,181	547,839	479,687	512,968	-5%
	EU-15	443,963	453,872	441,120	384,237	405,441	-9%
	EU-12	98,809	107,309	106,719	95,450	107,527	9%

Table 2.4 – International Trade Growth, Million Tonne Kilometres – EU total²¹

Figure 2.7 shows who is responsible for which international flows. In the biggest market, between EU-15 Member States, the majority of work is conducted by EU-15 hauliers, however in each of the other markets EU-12 hauliers conduct the majority of the work.

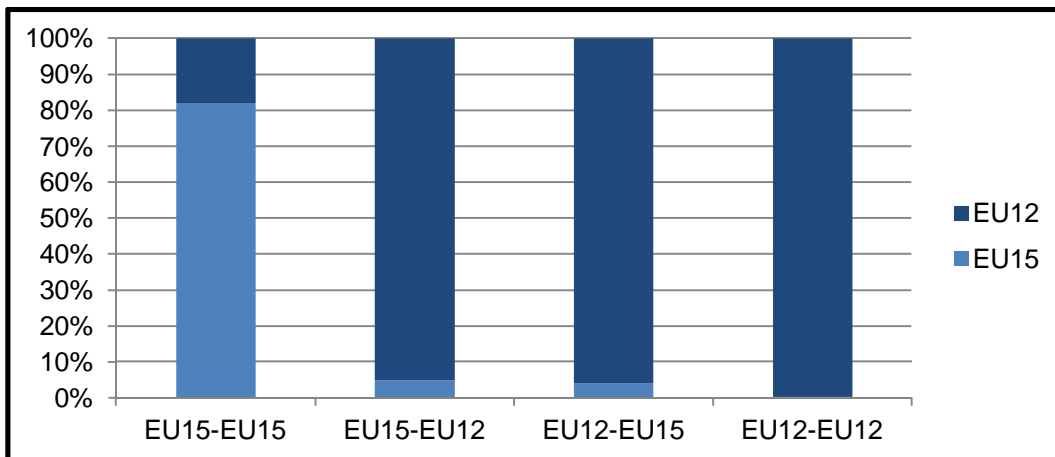


Figure 2.7 – Role of EU-12 Member States in international movements - % of tonne kilometres²²

EU-15 to EU-15 trade conducted by EU-12 hauliers through cross trade is a valuable source of income for these hauliers. Figure 2.8 shows that the 81,487 thousand Tonnes lifted by EU-12 hauliers in 2010 as part of a cross-trade movement represented 65% of all cross-trade. The Member States conducting the most cross trade are Poland, Netherlands, Luxembourg, Czech Republic, Hungary and Slovakia.

²¹ Eurostat, [road_go_ia_tc], 2012, Eurostat

²² Eurostat, [road_go_ia_tc], 2012, Eurostat

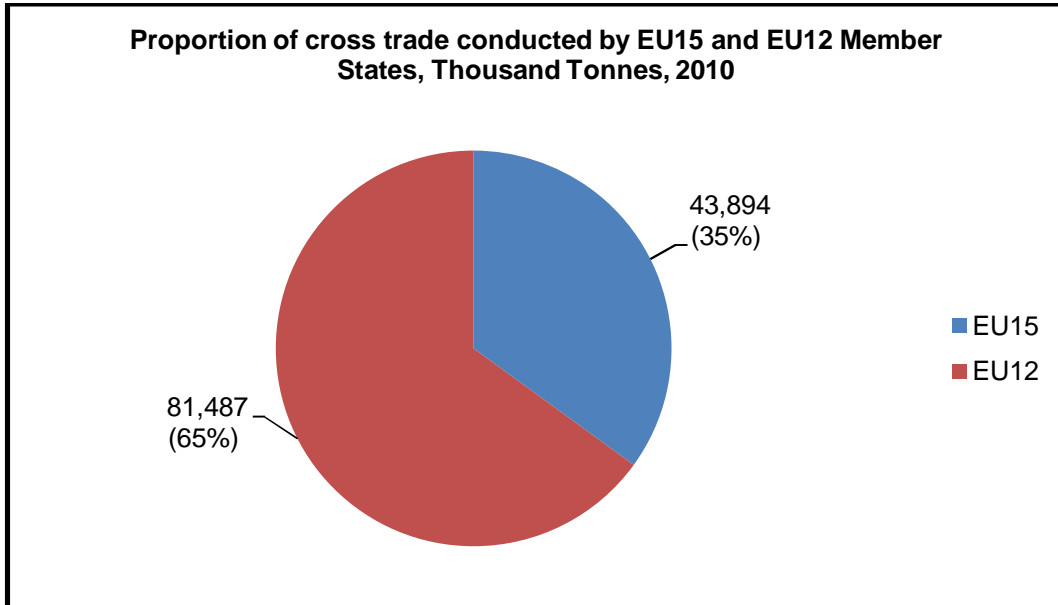


Figure 2.8 – Proportion of Cross-Trade Conducted by EU-15 and EU-12 Member States²³

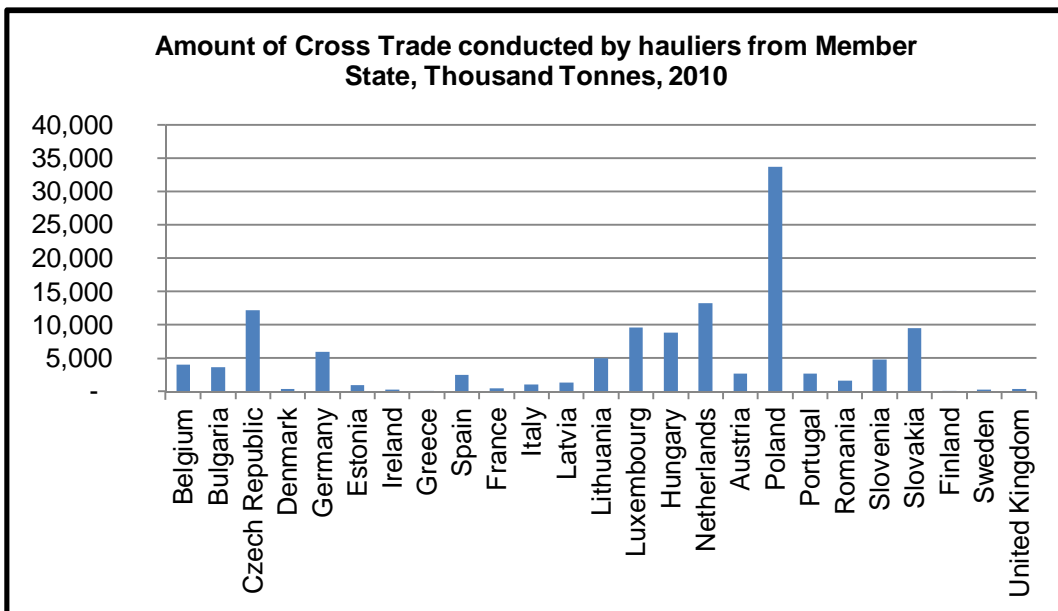


Figure 2.9 – Amount of Cross-Trade Conducted by Hauliers from Member States²⁴

²³ Eurostat: [road_go_cta_gtt], 2012, Eurostat

²⁴ Eurostat: [road_go_cta_gtt], 2012, Eurostat

2.6 Third Country Traffic

Third country traffic, trade between EU states and non-EU states such as Russia, Switzerland and Norway is also important for EU hauliers. In terms of exports, the biggest partners are Russia 40%, Switzerland 24%, Norway 11% and Turkey 6%. For imports the biggest partners are Switzerland 32%, Norway 21%, Turkey 14% and Russia 13%. Trade with these partners is particularly important for EU countries that neighbour third countries such as Finland, Bulgaria and the Baltic States. Haulier interviews revealed that the majority of trade with Russia is carried by Russian vehicles, as this reduces the chance of delays and difficulties with customs. For example one haulier interviewed as part of project process was responsible for transporting loads to Russia from the Oriflame factory in Poland. As the paperwork references were for either Sweden or Switzerland the load was rejected as according to the Russian authorities it should have had a 3rd country permit. The original focus for this haulier was the Netherlands-Russia-Poland as they have good competitive edge on this work, but the haulier sees this as the Russians actively wanting to minimise their work on this lucrative corridor.

Norway is well integrated with the rest of the Europe through close links with other Scandinavian countries, particularly in terms of enforcement, however observations have shown that road tolls are significantly greater in Norway than in Sweden.

2.7 Cabotage

Cabotage is discussed at length in Chapter 9, however given its importance both in terms of the market and in political terms it is discussed briefly here. All heavily cabotaged countries belong to the Western part of Europe: 86% of total cabotage takes place in Germany, France, Italy, United Kingdom, Belgium and Sweden. When comparing the level of cabotage to the total domestic market as a percentage illustrates that cabotage is a small proportion. This is shown in Figure 2.10. Cabotage is used by operators to make their vehicle journeys more efficient when a direct backload is not available. However, the presence of caboteurs operating in a market can have a disproportionate deflationary effect on haulage rates.²⁵

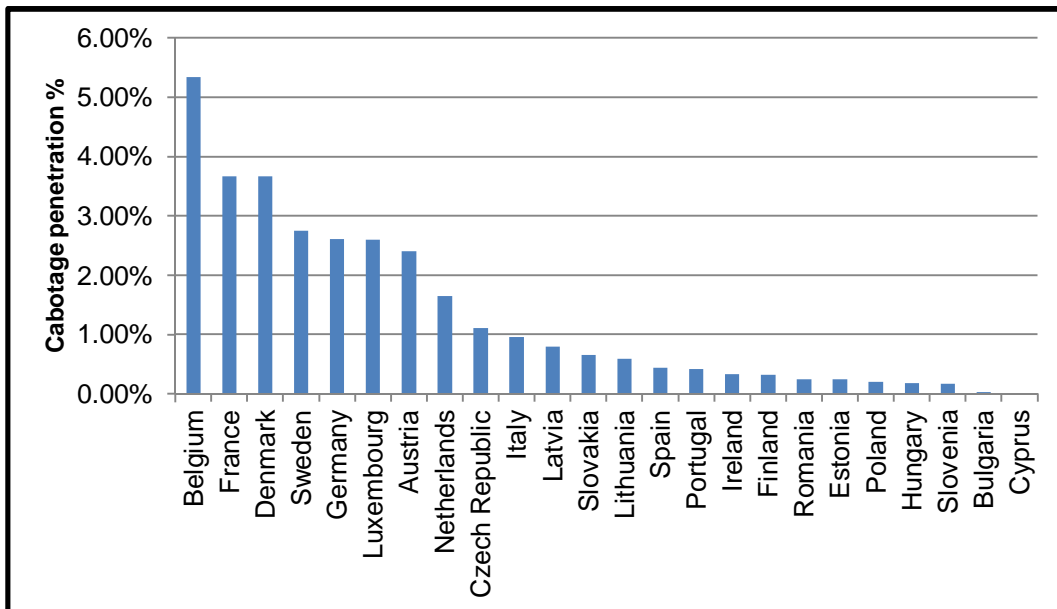


Figure 2.10 – Percentage Market Penetration of Cabotage in 2010, Million Tonne Kilometres²⁶

²⁵ Increasing fuel prices and market distortion in a domestic road haulage market: the case of the United Kingdom, 2007, A.C. McKinnon, Heriot Watt University

²⁶ Eurostat, [road_go_ca_c], 2012, Eurostat

Cabotage divides opinion both between Member States and types of operators. Notably, responses to the High Level Group's questionnaire highlighted respondents' reactions to the May 2010 rule changes regarding cabotage. This indicated that just over half thought the changes were not valuable to them. Furthermore, over 60% of respondents indicated that the current cabotage rules limited the flexibility of hauliers.

2.8 Domestic

In 2010, national transport accounted for two thirds of all road haulage in the European Union. The relative importance of national freight is greater in the EU-15, older members than in the EU-12 newer members. National transport constitutes 78% and 34% in these states respectively. The majority of national transport is undertaken by domestic hauliers based within that Member State, with only minor amounts of cabotage performed by hauliers from other States.

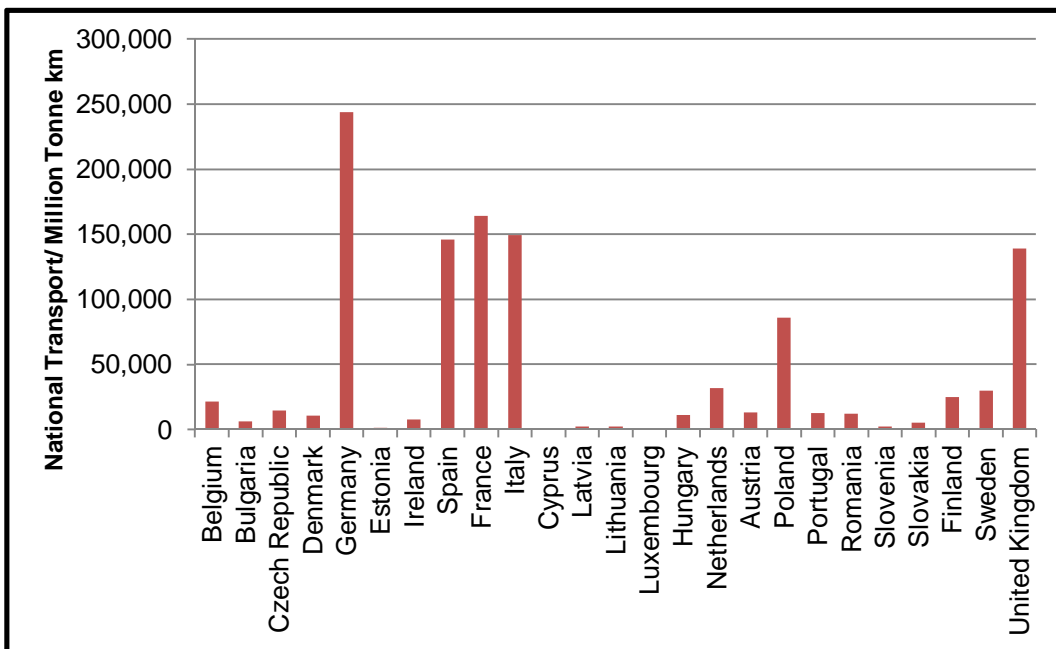


Figure 2.11 – Size of Domestic Market of Member States, 2010²⁷

2.9 Logistics Performance Index

The Logistics Performance Index (LPI) is compiled by the World Bank and is based on a worldwide survey of operators (global freight forwarders and express carriers) providing feedback on the logistics 'friendliness' of the countries in which they operate and those with which they trade²⁸. The LPI measures five aspects; customs performance (efficiency of the clearance process); infrastructure provision (quality of trade and transport infrastructure); international shipments (ease of arranging competitively priced shipments); logistics competence (competence and quality of logistics services); tracking and tracing (ability to track and trace consignments); and timeliness (reaching destination on schedule).

²⁷ Eurostat, [road_go_na_tggt], 2012, *Eurostat*

²⁸ Connecting to compete 2012, Trade Logistics in the Global Economy, The Logistics Performance Index and Its Indicators, *The World Bank*

Table 2.5 – 2012 International LPI Ranking²⁹

Country	LPI Rank	LPI Score	Customs	Infrastructure	International shipments	Logistics competence	Tracking & tracing	Timeliness
<i>Singapore</i>	1	4.13	4.1	4.15	3.99	4.07	4.07	4.39
<i>Hong Kong, China</i>	2	4.12	3.97	4.12	4.18	4.08	4.09	4.28
Finland	3	4.05	3.98	4.12	3.85	4.14	4.14	4.1
Germany	4	4.03	3.87	4.26	3.67	4.09	4.05	4.32
Netherlands	5	4.02	3.85	4.15	3.86	4.05	4.12	4.15
Denmark	6	4.02	3.93	4.07	3.7	4.14	4.1	4.21
Belgium	7	3.98	3.85	4.12	3.73	3.98	4.05	4.2
<i>Japan</i>	8	3.93	3.72	4.11	3.61	3.97	4.03	4.21
<i>United States</i>	9	3.93	3.67	4.14	3.56	3.96	4.11	4.21
United Kingdom	10	3.9	3.73	3.95	3.63	3.93	4	4.19
Austria	11	3.89	3.77	4.05	3.71	4.1	3.97	3.79
France	12	3.85	3.64	3.96	3.73	3.82	3.97	4.02
Sweden	13	3.85	3.68	4.13	3.39	3.9	3.82	4.26
Luxembourg	15	3.82	3.54	3.79	3.7	3.82	3.91	4.19
Spain	20	3.7	3.4	3.74	3.68	3.69	3.67	4.02
Italy	24	3.67	3.34	3.74	3.53	3.65	3.73	4.05
Ireland	25	3.52	3.4	3.35	3.4	3.54	3.65	3.77
Portugal	28	3.5	3.19	3.42	3.43	3.48	3.6	3.88
Poland	30	3.43	3.3	3.1	3.47	3.3	3.32	4.04
Slovenia	34	3.29	3.05	3.24	3.34	3.25	3.2	3.6
Cyprus	35	3.24	3.02	3.17	3.21	3.17	3.36	3.54
Bulgaria	36	3.21	2.97	3.2	3.25	3.1	3.16	3.56
Hungary	40	3.17	2.82	3.14	2.99	3.18	3.52	3.41
Malta	43	3.16	2.81	3.1	3.17	3.01	3.05	3.79
Czech Republic	44	3.14	2.95	2.96	3.01	3.34	3.17	3.4
Slovak Republic	51	3.03	2.88	2.99	2.84	3.07	2.84	3.57
Romania	54	3	2.65	2.51	2.99	2.83	3.1	3.82
Lithuania	58	2.95	2.73	2.58	2.97	2.91	2.73	3.7
Estonia	65	2.86	2.51	2.79	2.82	2.82	3	3.23
Greece	69	2.83	2.38	2.88	2.69	2.76	2.98	3.32
Latvia	76	2.78	2.71	2.52	2.72	2.64	2.97	3.08

²⁹ Connecting to compete 2012, Trade Logistics in the Global Economy, The Logistics Performance Index and Its Indicators, *The World Bank*

The Logistics Performance Indicator (LPI) 2012 scored all EU-27 states within the top 76 countries to operate in. Finland had the highest score in Europe at 4.05 and Latvia had the lowest score at 2.78. EU countries in general perform well on the LPI, with three out of the top five positions and 11 of the top 20 occupied by EU countries. This indicates that there is a favourable logistics environment in the EU which contributes to efficient trade. However, the LPI does indicate there is room for improvement. There is a clear trend towards EU-15 countries performing better in this index. Of the EU-15, only Greece is ranked outside of the top 15 in the EU. Poland, the highest ranked EU-12 country came 15th in the EU.

The aspect with the greatest disparity between EU member states was infrastructure, with one of the newest EU members, Romania performing the worst. In terms of international shipments, there is a much smaller disparity - a difference of only 1.17 between the best performer Netherlands, and the worst performer Greece.

2.10 Concluding Remarks

With 11 EU countries in the top 20 of the World Bank Logistics Performance Index, it is clear that many Member States offer an extremely productive platform for world-class logistics activities, however there is still room for improvement, as the rating does not reflect certain issues such as market distortion caused by the high level of non-compliance with road haulage legislation in the industry. Non-compliant companies can gain a competitive advantage over compliant companies as their operating costs tend to be lower.

The European road haulage market is characterised by a chain of hire and reward companies with large pan-European logistics companies at the top controlling the largest contracts but subcontracting much of that down the chain. At the bottom are small enterprises and self-employed owner drivers who either form small consortiums to obtain work, rely on subcontracting from larger firms or move loads identified through freight exchanges.

Extensive subcontracting practices provide a responsive resource but this level of fragmentation in the market is a major factor influencing high levels of competition and leads to an imbalance in the ability of small operators to fully recover costs such as fuel price increases. This means that increased costs are reflected as reduced margins, particularly for smaller operators that may have to find other ways to reduce costs to remain financially viable or be forced out of the market. This intense competitive pressure can lead to operators seeking to gain further market advantage by either legal or sometimes illegal means.

Some 250,000 Community Licences authorise the operation of around 1.4 million trucks, which in 2010 performed nearly 500,000 million tonne km. Road haulage accounts for 73% of all inland freight in the EU. International road freight has increased 9% in the period 2006-2010 from the EU-12, but there has been an equivalent decline over the same period from the EU-15.

Third country traffic (Non EU) provides important markets for EU international hauliers, the most significant 'partners' being Russia, Switzerland, Turkey and Norway. In comparison with total domestic markets cabotage activities represent only a small proportion of overall activity. There has been a large increase in the amount of cabotage conducted, 43% in tonne km terms between 2004 and 2010, and this growth seems likely to continue but perhaps with the only relatively short amount of time elapsed since the introduction in 2010 of the current cabotage rules, it is difficult to judge their impact in terms of encouraging or limiting cabotage activity.

Further important market factors, such as labour costs, driver shortages, legislation, enforcement and the adoption of new technology by the industry to help optimise performance are all explored further in the remainder of this report.

3 Legislation

3 Legislation

3.1 Introduction

From the beginning of common market policy in the European Union it was clear that the common market principle would necessitate a liberalised market structure that allowed for an unrestricted movement of people, goods, services and capital amongst all member countries.

From the late 1980s, the liberalisation of the road haulage market has progressed, as market access has been extended to remove quantity limitations. Driving/rest times, quality regulations and technical standards have been subject to harmonisation, and partial cabotage has been introduced.

At present, EU legislation exists that:

- Establishes common rules on access to the international road haulage market (Regulation (EC) No 1072/2009³⁰)
- Establishes common rules on access to the road haulage profession (Regulation (EC) No 1071/2009³¹)
- Sets minimal standards for working time, driving time and rest periods (including enforcement and the use of tachograph) for road haulage operators (Regulation (EC) No 561/2006³², Directive 2002/15/EC³³, Directive 1996/71/EC³⁴, Regulation (EC) No 561/2006, Regulation (EC) No 3821/1985³⁵, Directive 2006/22/EC³⁶, (as amended by Directive 2009/4/EC and Directive 2009/5/EC))
- Harmonises the maximum weights and dimensions of road vehicles (Directive 1996/53/EC³⁷, Regulation (EC) No 595/2009³⁸)
- Sets minimum annual fuel taxes, as well as common rules for tolls and user charges for heavy goods vehicles (Directive 2003/96/EC³⁹, Directive 1999/62/EC⁴⁰)

³⁰ Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 October 2009 - on common rules for access to the international road haulage market, *OJ L 300*, 14.11.2009, p. 72–87

³¹ Regulation (EC) No 1071/2009 of the European Parliament and of the Council of 21 October 2009 - establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator and repealing Council Directive 96/26/EC, *OJ L 300*, 14.11.2009, p. 51–71

³² Regulation (EC) No 561/2006 of the Parliament and of the Council of 15 March 2006 - on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, *OJ L 102*, 11.4.2006, p. 1–14

³³ Directive 2002/15/EC of the European Parliament and the Council of 11 March 2002 on the organisation of the working time of persons performing mobile road transport activities, *OJ L 80*, 23.3.2002, p. 35–39

³⁴ Directive 1996/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services, *OJ L 18*, 21.1.1997, p. 1–6

³⁵ Regulation (EC) No 3821/85 of 20 December 1985 - on recording equipment in road transport, *OJ L 370*, 31.12.1985, p. 8–21

³⁶ Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 - on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 - concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC, *OJ L 102*, 11.4.2006, p. 35–44

³⁷ Directive 1996/53/EC of 25 July 1996 - laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic, *OJ L 235*, 17.9.1996, p. 59–75

³⁸ Regulation (EC) No 595/2009 of the European Parliament and of the Council of 18 June 2009 - on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC, *OJ L 188*, 18.7.2009, p. 1–13

³⁹ Directive 2003/96/EC of 27 October 2003 - restructuring the Community framework for the taxation of energy products and electricity, *OJ L 283*, 31.10.2003, p. 51–70

⁴⁰ Directive 1999/62/EC of the European Parliament and of the Council of 17 June 1999 - on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 187*, 20.7.1999, p. 42–50

3.2 Access to the International Road Haulage Market

In December 2009 new regulations governing the international carriage of goods by road for hire or reward for journeys carried out within the territory of the Community were adopted, including Regulation (EC) No 1072/2009⁴¹. Since then, in the EU, the holding of a Community Licence authorises the licence holder to carry out international carriage, where international carriage refers to journeys, the point of departure and the point of arrival are in two different Member States. As such, the holding of a Community Licence authorises the licence holder to transport freight from their country of establishment to another Member State; as well as from one Member State (which is not their country of establishment) to another Member State. This is also referred to as cross-trade. Note that if the driver is a national of a third country they must also possess a driver attestation.

Under Regulation (EC) No 1072/2009, any haulier who is a holder of a Community Licence is entitled to carry out cabotage operations, where cabotage are transport services provided within any given Member State by hauliers based in another country. The provisions of Regulation (EC) No 1072/2009 concerning road cabotage became applicable from the 14th of May 2010. The Regulation provides that every haulier is entitled to perform up to three cabotage operations within a seven day period, starting the day after the unloading of the international transport. The haulier may decide to carry out one, two or all three cabotage operations in different Member States, not necessarily the Member State in which the international transport was delivered. In this case, only one cabotage operation is allowed in a given Member State, and should be carried out within three days of entering that Member State without cargo. Bulgaria and Romania were subject to transitional periods preventing hauliers from these countries from performing cabotage in certain other Member States until the transitional period elapsed at the end of 2011.

To comply with the Regulation, non-resident hauliers must be able to produce clear evidence of the international carriage in the course of which they have arrived in the host Member State, that is to say the Member State in which a haulier operates other than the haulier's Member State of establishment and of each consecutive cabotage operation carried out therein. The onus is on hauliers to prove that they are operating within the EU rules.

The cabotage provider is subject to the legislation of the Member State in which the freight operations are carried out in the following areas:

- the conditions governing the transport contract
- the weights and dimensions of road vehicles
- the requirements relating to the carriage of certain categories of goods, in particular dangerous goods, perishable food stuffs and live animals
- the driving time and rest periods
- the VAT on transport services

Under the Regulation, Member States experiencing serious disturbance to their national transport market due to the operation of cabotage have the opportunity to refer the matter to the Commission with the view to the adoption of safeguard measures, if the Commission decides such safeguard measures are necessary. In such a scenario the Member State would be required to take measures of equivalent scope in respect of resident hauliers.

3.3 Access to the Road Haulage Profession

Since December 2011 admission to the occupation of road haulage operator in the European Union has been governed by Regulation (EC) No 1071/2009⁴². Under this Regulation operators must fulfil four criteria to access the haulier profession, namely:

⁴¹ Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 October 2009 on common rules for access to the international road haulage market, *OJ L 300*, 14.11.2009, p. 72–87

⁴² Regulation (EC) No 1071/2009 of the European Parliament and of the Council of 21 October 2009 establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator and repealing Council Directive 96/26/EC, *OJ L 300*, 14.11.2009, p. 51–71

- **Good repute:** undertakings must be of good repute, where good repute relates to appropriate entrepreneurial and ethical conduct. Manipulating a tachograph, for example, would be considered an infringement that would lead to the loss of good repute.
- **Professional competence:** persons accessing the profession must first demonstrate possessing the practical knowledge and aptitude required to participate in the sector, by means of an obligatory exam.
- **Financial standing:** undertakings must demonstrate proof of being able to meet their financial obligations. To this end audited accounts must demonstrate the undertaking has at its disposal capital and reserves totalling at least €9,000 where one vehicle is used and €5,000 for each additional vehicle used.
- **Stable establishment:** the undertaking must have an establishment in the Member State which is authorising their participation in the profession. An establishment refers to premises where the undertaking keeps its core business documents.

It is at the Member State's discretion to determine the conditions which must be met by operators so as to meet the 'good repute' criteria. The Regulation does however, set out minimum conditions associated with good repute. These conditions include that there be no compelling grounds for doubting that the undertaking has committed any serious infringements of national rules in the fields of: commercial law; insolvency law; pay and employment conditions; road traffic; professional liability; and trafficking in human beings or drugs. Also, the undertaking should not have been convicted of a serious criminal offence, or incurred a penalty for a serious infringement of Community Rules relating to: driving times and rest periods; vehicle weights and dimensions; the qualification levels of drivers; the roadworthiness of vehicles; access to the international road haulage market; safety; the installation and use of speed-limiting devices; driving licences; admission to the occupation; and/or animal transport.

In the area of professional competence, the Regulation sets out the minimum areas where operators must demonstrate knowledge by means of an exam. These areas include: civil law; commercial law; social law; fiscal law; business and financial management; access to the market; technical standards; and road safety, where road haulage is relevant to each area.

Under the Regulation, Member States have the authority to impose additional requirements in terms of gaining access to the profession.

National authorities are required to carry out regular checks to ensure that undertakings active within the sector continue to satisfy these four criteria. In order to facilitate the monitoring of the road transport undertakings, Member States are required to set up national electronic registers which, from 2013 will be interconnected thereby enabling the cooperation and exchange of information at European level.

3.4 Drivers' Working Conditions

Within the EU efforts have been made to harmonise the safety and environmental aspects of the road haulage sector by setting standards in the areas of driver rest periods/driving times (including enforcement and the use of tachographs), working time, vehicle dimensions and emissions.

3.4.1 Driving Times and Rest Periods

Regulation (EC) No 561/2006⁴³ sets down detailed rules in relation to required daily and weekly rest periods, as well as maximum permissible driving times for all drivers of road haulage. For example the rules establish that:

- Daily driving periods must not exceed nine hours, with an exception of twice weekly when it can be extended to 10 hours
- Total weekly driving time must not exceed 56 hours; and total fortnightly driving time must not exceed 90 hours
- Breaks of at least 45 minutes (separable into 15 minutes followed by 30 minutes) must be taken after 4.5 hours driving
- Daily rest period must be at least 11 hours, with an exception of being reduced to nine hours at most three times weekly

⁴³ Regulation (EC) No 561/2006 of the European Parliament and the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, *OJ L 102, 11.4.2006, p. 1–14*

- Weekly rest must be 45 continuous hours, which can be reduced every second week to 24 hours. Compensation arrangements apply for reduced weekly rest period

The transport undertaking is responsible for organising the working week of its drivers in such a way as to ensure they comply with the provisions in the Regulation; and is liable for any infringements committed by its drivers, even if the infringement is committed on the territory of another Member State or a third country.

3.4.2 Working Time

The Road Transport Working Time Directive (Directive 2002/15/EC⁴⁴ on the organisation of the working time of persons performing mobile road transport) places limits on working time, including night work, for mobile workers; specifies rest and breaks periods between work; and sets down the obligations of employers and workers in relation to record keeping. The average weekly working time may not exceed 48 hours. The maximum weekly working time may be extended to 60 hours only if, over four months, an average of 48 hours a week is not exceeded. It is at the discretion of Member State to provide for longer minimum breaks and rest periods or shorter maximum driving times than those laid down in the Regulation in relation to road haulage operations undertaken wholly within its own territory. The Regulation however, applies to all drivers engaged in international transport operations.

Member States are responsible for laying down rules on the penalties applicable to infringements of the Regulation and for taking all measures necessary to ensure that they are implemented. Under the Regulation, it is stipulated that recording equipment must be installed and used in vehicles registered in a Member State which are used for carriage of goods by road. The drivers of vehicles fitted with recording equipment must be able to produce driving record sheets for the current week and (from January 2008) the previous 28 days.

The successful working of the directive is critically dependent upon enforcement, which varies between Member States. Furthermore, it is accepted that it is far more difficult to monitor and enforce adherence to the Directive by certain categories of drivers, most notably hauliers operating outside of their domestic market on international, cross trade and cabotage activity. One notable study of 2002⁴⁵ noted that some haulage operations could consist of “a tractor registered in Austria, with Austrian ECMT licences and operating in France, coupled to a trailer registered in Italy, loaded with Spanish freight, driven by a Bulgarian or Kazakh driver speaking a Slav language and holding identification papers drafted in Cyrillic.”

According to research published in 2008, there were 30 million EU-27 workers who usually work 48 or more hours each week⁴⁶. Over 80% are concentrated in the twelve occupational categories shown in the Table 3.1. Drivers are one of the most likely categories to engage in long hours (although it should be noted that data shown in table 3.1 predates the application of the Working Time Directive to self-employed drivers).

Occupation	Pop (, 000s)
Managers of small enterprises	3,757
Corporate managers	2,901
Skilled agricultural and fisheries workers	2,707

⁴⁴ Directive 2002/15/EC – of the European Parliament and of the Council of 11 March 2002 on the organisation of the working time of persons performing mobile road transport activities, *OJ L 80, 23.3.2002, p. 35–39*

⁴⁵ Social dumping in the ECMT Area, The Road Freight Haulage Case, 2002, *European Conference of Ministers of Transport*

⁴⁶ Revisions to the European working time directive: recent Eurofound research, 2008, *Eurofound*

Extraction and building trades workers	2,311
Drivers and plant mobile operators	2,224
Personal and protective services workers	2,163
Other associate professionals	1,954
Other professionals	1,437
Metal, machinery and related trades workers	1,275
Professionals: physical, mathematics, engineering	1,242
Models, salespersons	1,194
Other craft and related trades workers	877

Table 3.1 – Occupational categories with highest numbers of longest hours workers (EU-27)⁴⁷

3.4.3 Posting Directive

The Posting of Workers Directive 1996/71/EC⁴⁸ came into effect on 16 December 1999. Employers who post workers temporarily to work in other EU Member States must observe certain terms and conditions of employment including maximum work, minimum rest, holidays and pay. The Directive defines a "posted worker" as "a worker who, for a limited period, carries out his work in the territory of a Member State other than the State in which he normally works" (Article 2(1)).

The Directive applies to "undertakings [employers] established in a Member State which... post workers... to the territory of a Member State" (Article 1(1)). An undertaking is covered which (a) posts workers "under a contract concluded between the undertaking making the posting and the party for whom the services [of the posted worker] are intended"; (b) posts workers to work in its own establishment in another Member State (intra-company postings); or (c) is "a temporary employment, undertaking or placement agency" hiring out workers to user undertakings (Article 1(3)). In each case there must be an employment relationship between the sending employer (posting undertaking) and the posted worker.

When adopting the Directive, the Commission and the Council of Ministers attached a statement which purported to exclude most transport services and some other activities from the scope of the Directive. This statement is not part of the text of the Directive and has no legal effect.

The Directive does allow Member States (or collective agreements) not to apply minimum pay provisions in some cases where the duration of the posting is less than one month (Article 3(3,4)). Member States may also exclude minimum pay and holiday entitlements "on the grounds that the amount of work to be done is not significant" (Article 3(5)). However, neither of these exemptions applies to workers posted by a temporary employment undertaking or placement agency.

The Directive does not lay down EU terms and conditions of employment. It requires each Member State to ensure that employers observe national terms and conditions (including minimum pay and holidays, maximum hours, health and safety, maternity, young workers' protection, etc.) for posted workers. However, since each Member State can make exemptions, the terms and conditions applied are dependent on whether and to what extent exemptions have been used.

⁴⁷ ELFS (Eurofound), 2007, *Eurostat*

⁴⁸ Directive 1996/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services *Official Journal L 018*, 21/01/1997 P. 0001 - 0006

In March 2012 the Commission proposed new rules to increase the protection of workers temporarily posted abroad. It has put forward concrete, practical proposals as part of an enforcement Directive to increase monitoring and compliance and to improve the way existing rules on posted workers are applied in practice. This will ensure a level playing field between the businesses involved, excluding companies that don't follow the rules.⁴⁹

3.4.4 Tachographs

Under Regulation (EC) No 561/2006 drivers are legally required to accurately record their activities, retain the records and produce them on demand to transport authorities who are charged with enforcing regulations governing drivers' working hours. Regulation (EC) No 3821/1985⁵⁰ on recording equipment in road transport provided the basis for the tachograph in the EU. A tachograph is a device that records the driving time, breaks, rest periods as well as periods of other work undertaken by a vehicle driver. The digital tachograph succeeded the analogue tachograph as a result of European Union Regulation (EC) No 1360/2002⁵¹ that made digital tachographs mandatory for all relevant vehicles manufactured after the 1st of August 2005. Commission Regulation (EU) No 1266/2009⁵² aimed at modernising digital tachographs. This legislation contributed to better protection against fraud and required Member States to use a common electronic data exchange system. Since 2006, Directives have been introduced at an EU level that charge Member States with verifying that the recording equipment used in vehicles have not been tampered with.

3.4.5 Enforcement

The control of compliance with the rules set out in Regulation (EC) No 561/2006 (driving times and rest periods) and Regulation (EC) No 3821/1985⁵³ (tachograph) is governed by Directive 2006/22/EC⁵⁴, (as amended by Directive 2009/4/EC and Directive 2009/5/EC) which sets out the minimum level of enforcement required. Under the Directive, Member States are charged with ensuring that a coherent national enforcement strategy is applied on their territory. Member States must organise non-discriminatory checks in such a way that from January 2010 at least three per cent of days worked by drivers of vehicles falling within the scope of the Regulation are checked, (may be increased to four per cent in 2012). The Directive stipulates the minimum proportions of working days that should be checked at roadside and at the premises of road haulage undertakings. The rules also stipulate the minimum number of joint checks that must be implemented by Member State enforcement authorities yearly.

To improve the situation with respect to differing national interpretations of the driver time regulations, the Commission adopted Directive 2009/5/EC⁵⁵ amending annex III of Regulation (EC) No 561/2006 regarding driving times, rest times and the digital tachograph. The new annex proposes that infringements be classified into three categories according to their degree of seriousness, namely minor, serious and very serious infringements, and specifies reference thresholds for infringements relating to quantitative variables (for example, for a period of continuous driving greater than 4.5 hours and less than five hours, the infringement is minor; from five hours to six hours, the infringement is serious; and above six hours the infringement is very serious). The Directive made it mandatory for Member States to issue a classification of minor, serious and very serious infringements by the end of 2009.

⁴⁹ The inspection activity within posting of workers in the road transport: a guide for control authorities, 2012, TRANSP0

⁵⁰ Regulation (EC) No 3821/1985 of 20 December 1985 - on recording equipment in road transport, *OJ L 370, 31.12.1985, p. 8–21*

⁵¹ Regulation (EC) No 1360/2002 of 13 June 2002 - adapting for the seventh time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport, *OJ L 207, 5.8.2002, p. 1–252*

⁵² Regulation (EU) No 1266/2009 of 16 December 2009 - adapting for the tenth time to technical progress Council Regulation (EEC) No 3821/85 on recording equipment in road transport, *OJ L 339, 22.12.2009, p. 3–23*

⁵³ Regulation (EC) No 3821/1985 of 20 December 1985 - on recording equipment in road transport, *OJ L 370, 31.12.1985, p. 8–21*

⁵⁴ Directive 2006/22/EC of 15 March 2006 - on minimum conditions for the implementation of Council Regulations (EEC) No 3820/85 and (EEC) No 3821/85 concerning social legislation relating to road transport activities and repealing Council Directive 88/599/EEC, *OJ L 102, 11.4.2006, p. 35–44*

⁵⁵ Directive 2009/5/EC of 30 January 2009 - amending Annex III to Directive 2006/22/EC of the European Parliament and of the Council on minimum conditions for the implementation of Council Regulations (EEC) Nos 3820/85 and 3821/85 concerning social legislation relating to road transport activities, *OJ L 29, 31.1.2009, p. 45–50*

The Commission Implementing Decision C (2011) 3759, provides for a common approach to calculating driving times in cases where insufficient rest has been taken. The purpose of establishing this common calculation method is to enable enforcement authorities to make uniform decisions on the number and gravity of infringements committed by drivers failing to comply with their rest period obligation.

3.5 Vehicle Dimension and Emission Standards

European standards exist that cover a large number of technical aspects including the weight, size and emissions of vehicles.

In terms of vehicle weights and dimensions the standards set out in Directive 1996/53/EC⁵⁶ are binding. Member States may however deviate from them under strict conditions laid out in Article 4 of the Directive and in some cases these deviations are conditional upon not impacting on international competition. Chapter 12 - Vehicle Specification, explores various aspects of longer and heavier vehicles, double deck trailers and opportunities for improving vehicle productivity.

European emission standards define the acceptable limits for exhaust emissions of new vehicles sold in EU member states. The emission standards are defined in a series of European Union Directives, each staging the progressive introduction of increasingly stringent standards. For each vehicle type, different EU standards apply. European emission standards for new heavy-duty diesel engines are commonly referred to as Euro I ... VI (whilst Arabic numerals are used for light-duty vehicle standards, Euro 1...6). Beginning with the Euro VI stage, the legislation became simplified, as directives which need to be transposed into all of the national legislations were replaced by regulations which are directly applicable. Non-compliant vehicles cannot be sold in the EU, but new standards do not apply to vehicles already on the roads. The latest emission standards (Euro VI) were introduced by Regulation (EU) No 595/2009⁵⁷ published on 18 July 2009, and become effective from 2013 (new type approvals) and 2014 (all registrations).

3.6 Road User Charges

3.6.1 Taxes on Vehicle Fuel

In 2003, the European Union's Council of Ministers adopted Directive EC/96/2003⁵⁸ which inter alia sets out minimum levels of motor fuel taxation which must be applied in each Member State. Provided that they respect the minimum levels of taxation prescribed by the Directive, different rates of taxation may be applied by Member States. Please refer to Chapter 7 – Costs which demonstrates the varying levels of tax levied on fuel by the Member States, particularly Table 7.5.

In April 2011 the European Commission presented a proposal that would overhaul the rules on the taxation of energy products in the European Union. The new rules will restructure the way energy products are taxed to take into account both their CO₂ emissions and energy content. Under the new proposed rules, the prescribed levels of taxation will continue to represent minimum levels of taxation.

3.6.2 Road Use related Charges

Directive 1999/62/EC⁵⁹ (as modified by Directive 2006/38/EC⁶⁰ and by Directive 2011/76/EC⁶¹) represents the existing EU legislation which establishes certain types of tax applicable to HGVs but not to all road users. The Directive enables Member

⁵⁶ Directive 1996/53/EC of 25 July 1996 - laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic, *OJ L 235, 17.9.1996, p. 59–75*

⁵⁷ Regulation (EC) No 595/2009 of 18 June – on type-approval of motor vehicles and engines with respect to emissions from heavy duty vehicles (Euro VI) and on access to vehicle repair and maintenance information and amending Regulation (EC) No 715/2007 and Directive 2007/46/EC and repealing Directives 80/1269/EEC, 2005/55/EC and 2005/78/EC, *OJ L 188, 18.7.2009, p. 1–13*

⁵⁸ Directive 2003/96/EC of 27 October 2003 - restructuring the Community framework for the taxation of energy products and electricity, *OJ L 283, 31.10.2003, p. 51–70*

⁵⁹ Directive 1999/62/EC of 17 June 1999 - on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 187, 20.7.1999, p. 42–50*

⁶⁰ Directive 2006/38/EC - of the European Parliament and of the Council of 17 May 2006 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 157, 9.6.2006, p. 8–23*

States to charge "vehicle taxes", "tolls" and/or "user charges" for the use of certain types of infrastructure (e.g. motorways, bridges, tunnels and mountain passes) to users of that infrastructure. The Directive defines a "user charge" as a payment of a specified amount conferring the right to use for a given period (i.e. duration) the types of infrastructure referred to in the Directive. A "toll" is defined in the Directive as a payment of a specified amount for a vehicle travelling the distance between two points on the type of infrastructure referred to in the Directive.

The Directive requires that any HGV charging scheme must:

- Not discriminate against foreign hauliers
- Include all HGVs of 12 tonnes and over
- Not apply both a toll (distance based) and a vignette (time based) charge on the same stretch of road, with exceptions relating to tunnels, bridges and congested roads
- Not charge more than 11 Euros for a daily vignette (although a recent amendment to the Directive allows inflation-up rating of this figure)
- Not charge less than 50 times the value of a daily charge for an annual charge
- Not limit free movement across national borders

The Eurovignette Directive 1999/62/EC⁶² as modified by Directive 2006/38/EC⁶³ and by Directive 2011/76/EC⁶⁴ seeks to ensure that tolls better reflect the costs of transport infrastructure (i.e. infrastructure investment, operation, maintenance and development costs). Member States have the possibility of varying tolls according to a number of factors, for example: distance travelled; place; infrastructure type and speed; vehicle characteristics; time of day; and congestion level. Road user charging issues are further examined in Chapter 10 of this report.

3.7 Results of High Level Group Survey

As part of the High Level Group Questionnaire, respondents were asked if they thought that 'different quality aspects and different quality levels should apply in the cases of domestic transport, international transport, and cabotage or other transport segments'. Approximately three quarters of the respondents to the survey disagreed with this assertion, with one quarter agreeing with the assertion. This was broadly the case across both road hauliers and shippers. The social partner respondents were more equally matched in terms of the proportions of respondents agreeing and disagreeing with the assertion.

Respondents to the survey were also asked if they considered 'that there should be recognised differentiated (i.e. higher and lower) levels of quality for each of the following categories: freight forwarders, hauliers and drivers'. Across all respondent groups, approximately 68% of respondents agreed with the assertion, with the remaining 32% of respondents disagreeing with the assertion. Among the respondent groups, shippers showed the highest level of support for this assertion, with approximately 45% of shippers agreeing that there should be recognised differentiated (i.e. higher and lower) levels of quality for each of the categories.

Respondents to the survey that answered yes to the two questions above were then asked 'if the different aspects and levels of quality should be implemented through: legislation; self-regulation and industry standards; or a combination of both. Of those responding to this question approximately 70% were of the opinion that the different aspects and levels of quality should be implemented through both self-regulation and legislation. 90% of hauliers were of the opinion that the different aspects and levels

⁶¹ Directive 2011/76/EC - of the European Parliament and of the Council of 27 September 2011 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 269*, 14.10.2011, p. 1–16

⁶² Directive 1999/62/EC of 17 June 1999 - on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 187*, 20.7.1999, p. 42–50

⁶³ Directive 2006/38/EC - of the European Parliament and of the Council of 17 May 2006 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 157*, 9.6.2006, p. 8–23

⁶⁴ Directive 2011/76/EC - of the European Parliament and of the Council of 27 September 2011 amending Directive 1999/62/EC on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 269*, 14.10.2011, p. 1–16

of quality should be implemented through both self-regulation and legislation. Over half of the shipper respondents (58%) considered that the different aspects and levels of quality should be implemented through self-regulation and industry standards.

3.8 Concluding Remarks

There is a comprehensive set of EU wide legislation that seeks to control quality and safety aspects of the international road haulage market, impacting both on access to the market and operational standards. There are important stakeholders in the road haulage 'chain of command' that fall to the margins of the scope of much of the regulatory framework described in this chapter – notably the freight forwarding community. These entities enjoy the ability to manage and profit from haulage activity often without having mandated liability for standards or safety and thus could be viewed to have a distorting affect on the market. Whilst this must have a bearing on market conditions, there is general consensus that both legislation and self-regulation should be used to manage quality aspects of the supply chain. Shippers and forwarders in particular have spoken out against over regulation, arguing that market forces are the key to improving quality and conditions in road transport services.

Many aspects of regulatory regimes detailed in this section are explored further in this report and indeed also in the Task B Report on the State of the EU Road Haulage Market.

4 Enforcement

4 Enforcement

4.1 Introduction

As recently as 2011, the European Commission White Paper – Roadmap to a Single European Transport Area⁶⁵ recognised that the issue of non harmonisation of regulation for road freight remained a problem across Europe. The White Paper outlines that in order to achieve a single European transport area, it will be necessary to remove a number of obstacles to the functioning of the internal market with greater enforcement of competition rules playing a vital role in achieving this objective. The White Paper goes on to highlight the need for greater convergence and enforcement in order to avoid market distortions in achieving this objective.

4.2 Current Studies

The Commission staff working document accompanying the White Paper – Roadmap to a Single European Transport Area⁶⁶ specifically discusses the harmonised enforcement of rules for professional road transport. The Commission recognises that the differing control and sanction systems in different Member States can create administrative burdens for hauliers as well as resulting in an unlevel playing field and safety concerns. Citing a 2009 Report undertaken by the Commission, the working document outlined that in many cases there are substantial differences across Member States in relation to the category of infringement, penalties, and fines applied.

The variations in enforcement and penalties across Member States have been highlighted in the 2012 study on the overview and evaluation of enforcement in the EU social legislation for the professional road transport sector carried which shows data from 2009-2010, and was carried out by the European Parliament⁶⁷. This study illustrated how enforcement levels vary greatly across Member States. In particular, it was documented that France, Germany and Sweden had considerably higher levels of checks. Conversely, the Netherlands and Slovenia achieved results below the minimum target. Figure 4.1 illustrates the number of working days checked as a proportion of the minimum number of days to be checked and the consequent variation from one Member State to the next.

A report from 2009-2010 on the implementation of Regulation (EC) No 561/2006⁶⁸ details improvements in enforcement by Member States, in particular as regards, performance of reaching the thresholds set in the legislation, data collection and reporting discipline. It also states that there have been improvements in application of the rules by professional drivers and transport undertakings. The number of checks performed had increased and the threshold of minimum working days to be checked rose from 2% in 2009 to 3% in 2010. All except five Member States reached or even exceeded the minimum number of checks.

⁶⁵ White Paper Roadmap To A Single European Transport Area – Towards A Competitive And Resource Efficient Transport System Brussels, 28.3.2011 COM(2011) 144 Final

⁶⁶ Commission Staff Working Document Accompanying The White Paper - Roadmap To A Single European Transport Area – Towards A Competitive And Resource Efficient Transport System Brussels, 28.3.2011 SEC(2011) 391 Final

⁶⁷ Overview And Evaluation Of Enforcement In The EU Social Legislation For The Professional Road transport Sector, 2012 , *European Parliament*

⁶⁸ Report on the implementation in 2009-2010 of Regulation (EC) No 561/2006 on the harmonisation of certain social legislation relating to road transport and of Directive 2002/15/EC on the organisation of the working time of persons performing mobile road transport activities, 2011, European Commission

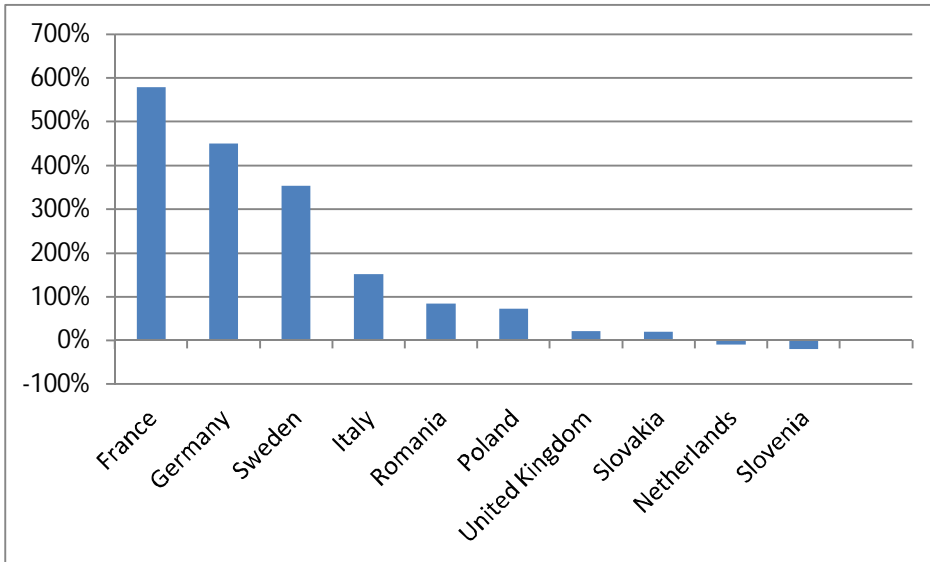


Figure 4.1 – Number of Working Days Checked as a Percentage of the Minimum Number of Days to be Checked for Selected Member States⁶⁹.

Similar degrees of disparity in the levels of checks were also seen in relation to driving/rest times, roadworthiness tests, speeding and the transport of dangerous goods. Variations across Member States were also evident in the severity of penalties imposed. For example, in relation to driving and rest time penalties it was illustrated how in Malta there is a fixed penalty of €60 per offence while in the UK fines vary from £200-£5,000 whilst it is also possible to receive a prison sentence⁷⁰.

In addition to the variation in the level of checks, the report also documented considerable differences in the success rates for detecting offences. Whilst it was recognised that it is not possible to link the level of checks with the level of detections, it was suggested that a more targeted approach to checks may be more successful. Figure 4.2 illustrates the quantitative relationship between the offences and checks in freight transport for driving/rest times. As can be seen in the Figure 4.2, Austria, the Netherlands and Germany had considerably higher levels of offences per check than compared to Luxembourg or Sweden, possibly indicating a more targeted approach by the authorities there.

⁶⁹ Overview And Evaluation Of Enforcement In The EU Social Legislation For The Professional Road transport Sector, 2012 , *European Parliament*

⁷⁰ Enforcement of the EU Legislation on Road Freight Transport: Controls and Sanctions Related To Compliance with Road Safety Provisions 2008, *European Parliament*

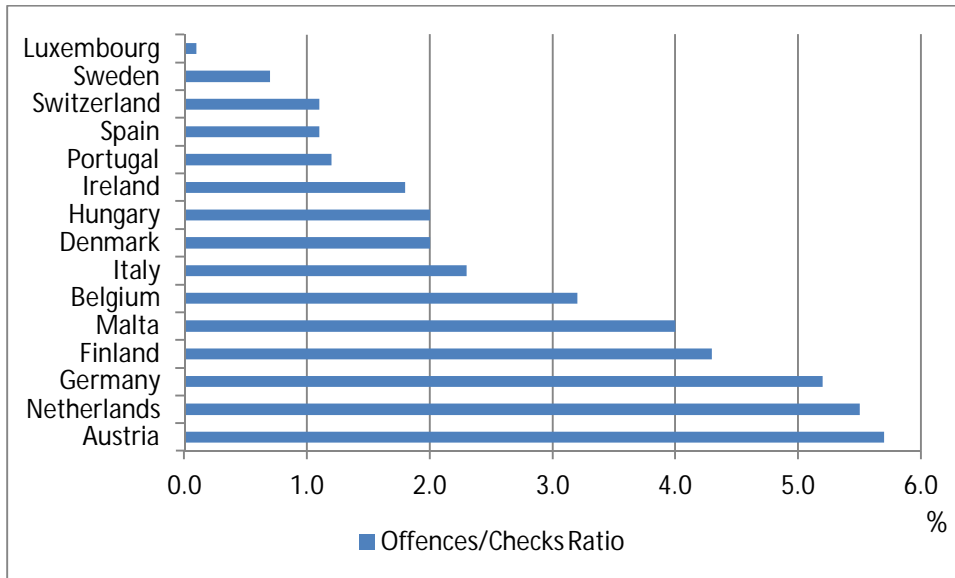


Figure 4.2 – Driving/Rest Times: Offences/Checks Ratio⁷¹

However, implementing a targeted approach is also subject to limitations by virtue of cross border aspects to enforcement. The report highlighted difficulties in enforcing traffic laws on non national vehicles and also criticised the amount of data sharing across Member States. In particular, the limited amount of data sharing was seen as a difficulty in targeting possible repeat offenders as well as in practical everyday enforcement such as verifying insurance details for vehicles. The lack of a legislative framework enabling prosecutions across countries was also recognised as a limitation in enforcement across Member States.

Variance in the structure and resources devoted to enforcement and regulation is also evident in analysing the items controlled by various enforcement agencies across the Member States. In the context of the work of the International Transport Forum Group on Road Transport, member countries were requested to supply any useful information for road hauliers driving through an ECMT (European Conference of Ministers of Transport) Member country of which they are not nationals. This information concerned the nature of inspections they might have to undergo and the identity of the enforcement agencies carrying out the inspections.

Eleven different items that required controls were recorded; traffic regulations and licences; authorisation for international road transport; special authorisation for carriage of passengers and other related documents; T1 customs documents or TIR Carnets; weights and dimensions; certification for carriage of perishable foodstuffs and special equipment; documents on veterinary and phytosanitary control; road user charges; technical conditions of vehicles; regulations on driving hours and; regulations on transport of dangerous goods. This information was revised in September 2011 and is summarised in Table 4.1 relevant EU Member States.

As can be seen in Table 4.1, there is a wide degree in the variation of resources and enforcement agencies deployed by Member States to enforce road transport controls. A significant number of Member States rely on the state and local police force to carry out inspections with relatively little reliance on roads administration or authorised technical experts. However, the number of items controlled by 'other' not specified authorities varies greatly across Member States. For instance Hungary relies on 19 other authorities to carry out inspections indicating that across the 11 categories of items to be controlled in many cases there is more than one body responsible. A similar trend was seen amongst Lithuania and Malta who had 14 and 12 other authorities

⁷¹ Enforcement of the EU Legislation on Road Freight Transport: Controls and Sanctions Related To Compliance with Road Safety Provisions 2008, *European Parliament*

respectively carry out inspections across the 11 items to be controlled. Such a trend reinforces the need for extensive data sharing among agencies to ensure more effective enforcement targeting.

	State Police	Local Police	Customs	Transport Ministry	Road Administration	Authorised Technical Experts	Other
Austria	-	11	3	1	1	-	2
Belgium	8	8	9	8	-	-	7
Bulgaria	2	2	1	6	2	-	1
Czech Republic	9	1	10	7	-	-	5
Denmark	10	10	1	-	-	2	-
Estonia	7	7	3	7	2	-	10
Finland	11	11	11			-	3
France	10	11	8	1	2	-	-
Germany	3	10	4	-	8	-	-
Greece	5	-	4	-	-	-	8
Hungary	6	-	9	1	1	-	19
Ireland	1	-	1	5		-	9
Italy	8	9	6	8	1	1	9
Latvia	6	2	7	7	2	1	8
Lithuania	7	-	6	-	-	1	14
Luxembourg	11	-	10	2	-	-	2
Malta	3	-	1	6	-	1	12
Netherland	6	3	4	6	-	3	2
Poland	11	7	-	-	-	1	11
Portugal	11	4	2	8	-	1	2
Romania	5	-	1	7	4	1	2
Slovakia	10	-	6	5	2	3	2
Slovenia	6	6	7	-	-	-	7
Spain	11	-	1	6	2	-	3
Sweden	-	8	3	-	-	-	1
UK	-	7	1	7	1	4	1

Table 4.1 – Resources devoted to Enforcement across EU Member States⁷²

4.3 Results of the High Level Group Questionnaire

To assist with its work to develop its report to the Commission on the state of the road haulage market, between July and October 2011, the Commission's High Level Group on Road Freight Transport carried out a questionnaire seeking stakeholder views on a number of relevant issues including enforcement. Some 87 entities responded to the questionnaire which was placed on the Commission's website and circulated to known interested parties. Respondee included industry associations, non-governmental organizations, private enterprises, public authorities and citizens.

⁷² International Transport Forum Group on Road Transport, 2011, *International Transport Forum*
<http://www.internationaltransportforum.org/IntOrg/road/ctrlbodies.html>

In response to the questionnaire approximately 73% of all survey respondents did not consider enforcement practices to be harmonised across the EU as evident in Figure 4.3. This trend was consistent among shippers, road haulage, small businesses and social organisation respondents. When questioned as to what the main problems in this area were, the majority of respondents stated different enforcement levels and penalties as well as different interpretations of rules among Member States.

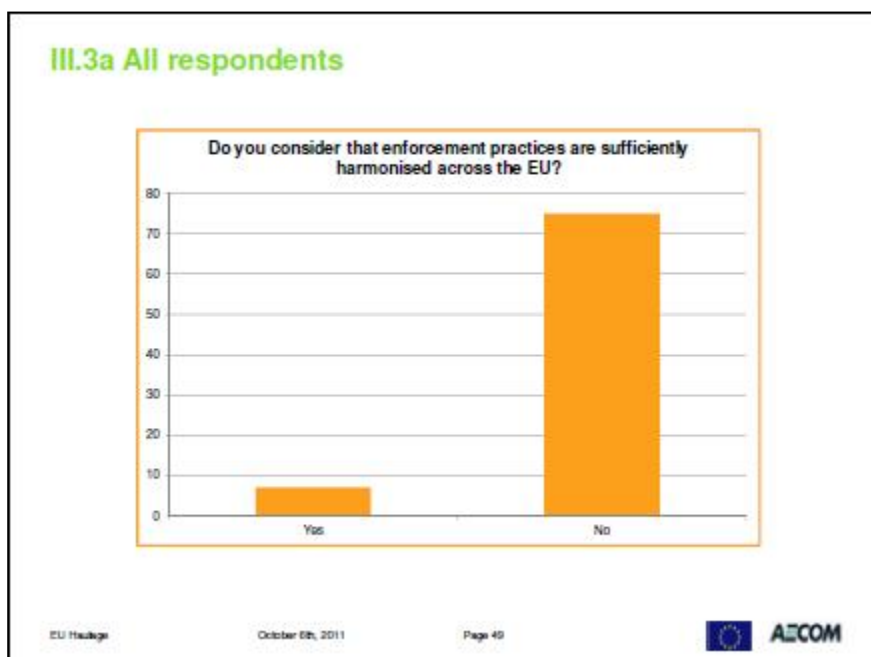


Figure 4.3 – Perceptions of Harmonised Enforcement Practices in EU⁷³

In addition, over 70% of all respondents were of the opinion that sanctions and the level of penalties were not harmonised across the EU as illustrated in Figure 4.4. Once again this was consistent among the different categories of respondents. Interestingly, approximately 55% of all respondents considered sanctions and penalties as an effective deterrent against non compliance, however, considerable discrepancy existed among respondents. Both hauliers and shippers were of the opinion that sanctions and penalties were effective however; the majority of social partner respondents did not hold this view. Respondents were asked to recommend possible improvements to the current situation in terms of enforcement practices, sanctions and penalties. The majority of respondents suggested greater levels of EU harmonisation followed by the introduction of guidelines, databases, tools, KPIs and partnerships to support uniform enforcement.

⁷³ High Level Group Consultation, 2011

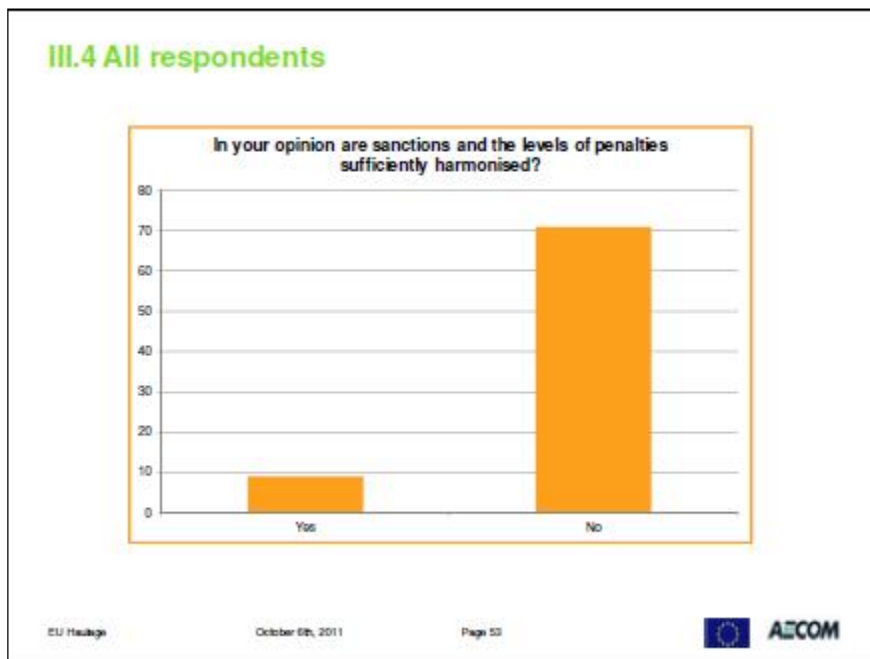


Figure 4.4 – Perceptions of Harmonisation in Penalties and Sanctions⁷⁴

4.4 Industry Views

This section gives an overview of the interviews carried out and it should be noted that the views of hauliers are their own and do not represent the views of the authors or of the European Commission.

Interviews carried out with industry stakeholders for this study also reinforced the view that there was a significant lack of harmonisation in relation to sanctions and penalties. A range of hauliers from France, Portugal and Germany were of the opinion that enforcement and sanctions were not standardised. In particular, the Polish Trade Association suggested that problems occurred due to different interpretations of the law in different countries with these different interpretations then passed to the various enforcement agencies for implementation. They outlined that these different interpretations and thus implementation practices lead to controls carried out by roadside officers to be drastically different. It was highlighted that these differences across Member States can lead to a situation where the type of infringements and sanctions is variable so drivers do not know what to expect and that the time spent at the roadside controlling a driver also varies.

A number of interviewees identified Austrian, German and Spanish enforcement officers as particularly strict in their interpretation of rules. One Portuguese haulier highlighted that Spain tends to be strict in enforcing working and rest time periods in comparison to Portugal which tends to be quite lax in its enforcement.

Case Study – AECOM Haulier interview with Polish Operator

A Polish haulier indicated that Austrian enforcement officers had a strict interpretation of transport law and were seen to be very heavy handed in administering sanctions. The strict interpretation adopted coupled with heavy fines for minor offences has forced the haulier to deploy only its very newest trucks on work involving Austria.

⁷⁴ AECOM Consultation, 2011

Variability in fines across a number of Member States was also reported by a number of interviewees. In particular, a number of hauliers highlighted fines in France as being particularly expensive. One German haulier reported receiving a fine of €600 in France for what they believed to be a minor offence. Similar incidences are seen in Austria where minor offences were reported to result in a fine of €800. Hungary was also identified as having fines that appear to be disproportionate to the offence including the practice of impounding a vehicle until the fines were paid. The Polish Trade Association ZMPD also noted that sanctions can be particularly high in Spain and Hungary where offences can command a fine of over €4,000.

As a result of differences in interpreting legislation, a number of countries have adopted different standards. In relation to transporting abnormal loads the need to register these trips can vary substantially with the UK and Sweden facilitating registration within a couple of days whereas Poland can take a week with Italy and Spain taking up to a month using a paper based system. Other variations were also highlighted including Hungary's requirement for 14kg fire extinguishers when the standard is generally 12kg. Similarly, German authorities have regulations regarding stowage of goods on curtain-sided semi-trailers which does not exist in France. Some hauliers view these varying standards as a means of targeting foreign vehicles that may not be aware of the rules and so are easy options for authorities to make money.

In January 2012 the IRU, in partnership with Euro Control Route (ECR), have launched an online complaints desk for Disproportionate Fines & Sanctions. This will allow transport operators and drivers to report controls or penalties that they consider unfair with regards to compliance with the EU Driving and Rest times and Tachograph Regulations.

In addition to this the European Commission has adopted rules for linking national electronic registers of road transport undertakings. This linked-up database is called the "European Registers of Road Transport Undertakings" (ERRU). This was due to be completed by the end of 2012 and although not all Member States managed to keep to this deadline efforts are currently on-going to achieve this. The Commission does not have access to the type of information exchanged via ERRU, it only knows the number of messages sent between the Member States and this info is available on the hub only for six months. ERRU and national registers should be used by Member States to better target checks at the premises. ERRU allows a better exchange of information between Member States, so that the competent authorities can better monitor the compliance of road transport undertakings with the rules in force. Undertakings that do not respect the rules when operating abroad will face the consequences in the Member State where they are based. This creates fairer competition conditions in the road transport market. The set-up of the national registers and their interconnection are required under the legislation on the access to the profession of road transport undertakings (Regulation (EC) no 1071/2009)⁷⁵. A first decision on the format of the national electronic registers has been adopted in 2009 on minimum requirements for the data to be entered in the national electronic register of road transport undertakings. Also there are existing risk rating systems established under Directive 2006/22/EC⁷⁶ and extended under Regulation (EC) No 1071/2009⁷⁷, which serve the purpose of targeting checks on companies with higher risk rating, resulting from infringements committed/detected. For the moment information from these risk rating systems is provided from infringements to Regulation (EC) No 561/2006⁷⁸ on driving time and rest periods and Regulation (EC) No 3821/85⁷⁹ on the tachograph.

⁷⁵ Regulation (EC) No 1071/2009 of the European Parliament and of the Council of 21 October 2009 establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator and repealing Council Directive 96/26/EC, *OJ L 300*, 14.11.2009, p. 51–71

⁷⁶ Directive 2006/22/EC of the European Parliament and of the Council of 15 March 2006 - on minimum conditions for the implementation of Council Regulations (EC) No 3820/85 and (EEC) No 3821/85 - concerning social legislation relating to road transport activities and repealing Council Directive 1988/599/EC, *OJ L 102*, 11.4.2006, p. 35–44

⁷⁷ Regulation (EC) No 1071/2009 of the European Parliament and of the Council of 21 October 2009 establishing common rules concerning the conditions to be complied with to pursue the occupation of road transport operator and repealing Council Directive 96/26/EC, *OJ L 300*, 14.11.2009, p. 51–71

⁷⁸ Regulation (EC) No 561/2006 of the Parliament and of the Council of 15 March 2006 - on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, *OJ L 102*, 11.4.2006, p. 1–14

⁷⁹ Regulation (EC) No 3821/85 of 20 December 1985 - on recording equipment in road transport, *OJ L 370*, 31.12.1985, p. 8–21

4.5 Concluding Remarks

Whilst the overall number of enforcement checks performed by enforcement agencies on the haulage industry across the EU does appear to be increasing, there is considerable variation between Member States in the frequency of checks and in the severity of the penalties imposed for infringements. The large number of agencies in different Member States and the variable level of activity would seem to be a large factor in this issue. Different levels of penalties and variable interpretation of legislation appear to be significant barriers to the creation of a fair and level 'playing field' for all operators.

In order to overcome this barrier, the Commission has proposed to harmonise and enhance enforcement policies to ensure hauliers face standard checks and infringements. It is the view of the Commission that sanctions for infringements should be proportionate, non discriminatory and be effective. Not only are the fines levied against hauliers from one Member State to the next different but the authorities are pursuing enforcement by employing different methods. Some are actively targeting particular segments of the road haulage market such as foreign operators.

In order to achieve the harmonisation of enforcement, the Commission is advocating a standardised approach to the training of enforcement officers across Member States in order to facilitate a standardised application of legislation. The Commission is also advocating the exchange and distribution of information more systematically across enforcement agencies. The ERRU and national registers should be used by Member States to better target checks at the premises. Existing rate systems also serves the purpose (for the moment for the social rules and tachograph provisions) that is targeting checks on companies with higher risk rating, resulting from infringements committed/detected. The overall aim of this initiative is to ensure inspections are more quickly targeted and less burdensome in terms of administrative tasks. The topic of enforcement harmonisation and in particular the effectiveness of cabotage controls are further elaborated in the Task B State of the EU Road Haulage Market report. Recent reports show that there have been improvements in enforcement with regards to data collection and reporting discipline. Other improvements highlighted include the application of the rules by professional drivers and transport undertakings.

5 Safety

5 Safety

5.1 Introduction

Truck drivers are professionally trained individuals with vocational skill requirements in terms of the Driver CPC (Certificate of Professional Competence) and licence acquisition mean that their driving skills and road safety awareness is generally better than other motorist. However, due to their large and heavy characteristics, when a HGV is involved in an incident it often results in a serious incident with injuries or even fatalities. This chapter considers causal factors of incidents, and the risks of international driving. The chapter will also look at other types of incidents on the road that can put a driver's safety at risk such as crime.

The safety of the driver, vehicle and load is of key concern to a road haulage operator. Steps have been taken at EU level, national level and company level to try to ensure the safety of these three components of a road haulage operation.

In its White Paper on the European Transport Policy, the European Commission proposed that the European Union should set itself the target of halving the number of road deaths by 2010. The latest White Paper – Roadmap to a Single European Transport Area – has now moved to a 'zero-vision' on road safety. The paper proposes (in addition to other proposals):

- Harmonisation of deployed road safety technology
- Focus on training and education
- Streamline the rules for transport of dangerous good

The EU has made it possible to develop safer vehicle parts as a result of more than 50 directives, which includes standardisation of braking systems for example⁸⁰.

However, many stakeholders of a research report believed that the EU and national legislation set minimum standards of safety but offering a high level of protection continues to be necessary and appropriate⁸¹.

5.2 One Death is too Many

In the EU-27 in 2009, 34,500 people were killed in road incidents, down from 54,000 in 2001. The aim of halving deaths by 2010 does not appear to have been achieved. Statistics collated by the European Commission identified that more than 5,300 people died in road traffic incidents involving HGVs in 2008 (this figure includes 23 selected Member States)⁸². There are many safety implications with working in the logistics industry from operation of dangerous machinery, working at height and movement of heavy loads. The UK Health and Safety Executive report into the road haulage industry discovered that in the UK logistics industry, 60 people were killed and 5,000 injured over a five year period⁸³. Injuries sustained at work can impact on the company through lost time, for example the Spanish Government found that the average effect of an incident in Spain was that employees involved were off work an additional three days a year⁸⁴.

Member States with the best road safety records, such as Sweden, the UK and the Netherlands, were the first to set quantified targets to reduce the number of victims⁸⁵. The collection of data on incidents and physical injuries is important to be able to make an evaluation of road safety problems⁸⁶.

⁸⁰ Document COM(2003) 311 final, Communication from the Commission, European Road Safety Action Programme, Halving the number of road accident victims in the European Union by 2010: A share responsibility, 2003, *European Commission*

⁸¹ Technical Assistance in Support of the Preparation of the European Road Safety Action Programme 2011 – 2020, 2010, *COWI, European Commission*

⁸² HGV Traffic Safety Basic Facts, 2010, *European Commission*

⁸³ Health and Safety in Road Haulage, 2003, *Health and Safety Executive*

⁸⁴ Strategic Plan of Action for Road Freight (Plan estrategico de actuacion para el transporte de mercancías por carretera), 2008, *Ministry of Public Works of Spain*

⁸⁵ Document COM(2003) 311 final, Communication from the Commission, European Road Safety Action Programme, Halving the number of road accident victims in the European Union by 2010: A share responsibility, 2003, *European Commission*

⁸⁶ Document COM(2003) 311 final, Communication from the Commission, European Road Safety Action Programme, Halving the number of road accident victims in the European Union by 2010: A share responsibility, 2003, *European Commission*

Table 5.1 shows the number of fatalities involving freight vehicles⁸⁷.

	2008			2009			2010			2010 change from 2008
	HGV	Total	HGV as % of Total	HGV	Total	HGV as % of Total	HGV	Total	HGV as % of Total	
Belgium	122	944	13%	117	944	12%	111	840	13%	-9%
Czech Republic	169	1076	16%	163	901	18%	175	802	22%	4%
Denmark	62	406	15%	35	303	12%	36	255	14%	-42%
Germany	625	4477	14%	536	4152	13%	534	3648	15%	-15%
Ireland	44	280	16%	22	238	9%	13	212	6%	-70%
Greece	138	1553	9%	113	1456	8%	127	1258	10%	-8%
Spain	452	3099	15%	353	2714	13%	333	2479	13%	-26%
France	596	4275	14%	502	4273	12%	552	3992	14%	-7%
Italy	977	4725	21%	785	4237	19%	835	4090	20%	-15%
Luxembourg	2	35	6%	2	48	4%	9	32	28%	350%
Netherlands	107	677	16%	95	644	15%				
Austria	107	679	16%	81	633	13%	97	552	18%	-9%
Poland	1,155	5437	21%	952	4572	21%	947	3908	24%	-18%
Portugal	112	885	13%	120	840	14%	95	937	10%	-15%
Romania	292	3061	10%	252	2796	9%	191	2377	8%	-35%
Slovenia	7	214	3%	12	171	7%	7	138	5%	0%
Finland	106	344	31%	70	279	25%	92	272	34%	-13%
Sweden	72	397	18%	45	358	13%				
United Kingdom	380	2645	14%	287	2337	12%	282	1965	14%	-26%

Table 5.1 – Fatalities Involving a HGV by Member States for 2008-2010⁸⁸ (No information is available for the Netherlands and Sweden for 2010)

In respect of Table 5.1 some Member States did not submit comparable data and are therefore not shown. These Member States are Bulgaria, Hungary, Estonia, Latvia, Lithuania, Slovakia, Malta and Cyprus.

As can be seen in Table 5.1, HGV fatalities represent a high proportion of total fatalities on the EU's roads for all three years. This is not to suggest that HGV drivers are bad drivers, it is more likely due to the fact that when an incident does occur, a fatality is more likely due to the forces involved. Some Member States have a much higher rate of HGV fatalities as a proportion of total fatalities than others such as Finland, Czech Republic, Luxembourg, Italy and Poland all having at least 20% for 2010. All Member States with the exception of Finland, Romania, Ireland and Austria reduced the number of fatalities caused in an incident involving a HGV between 2008 and 2010.

⁸⁷ Traffic Safety Basic Facts 2012, Heavy Goods Vehicles and Buses, 2011, *European Road Safety Observatory*

⁸⁸ Traffic Safety Basic Facts 2012, Heavy Goods Vehicles and Buses, 2011, *European Road Safety Observatory*

By comparison, for 2010, Poland and France have a similar number of road fatalities but France has approximately half the number of HGV fatalities compared to Poland. This conflicting message means a better comparison should be undertaken. For this, AECOM has chosen the total number of HGV km driven in each Member State to give a rate of the number of fatalities per billion HGV km driven.

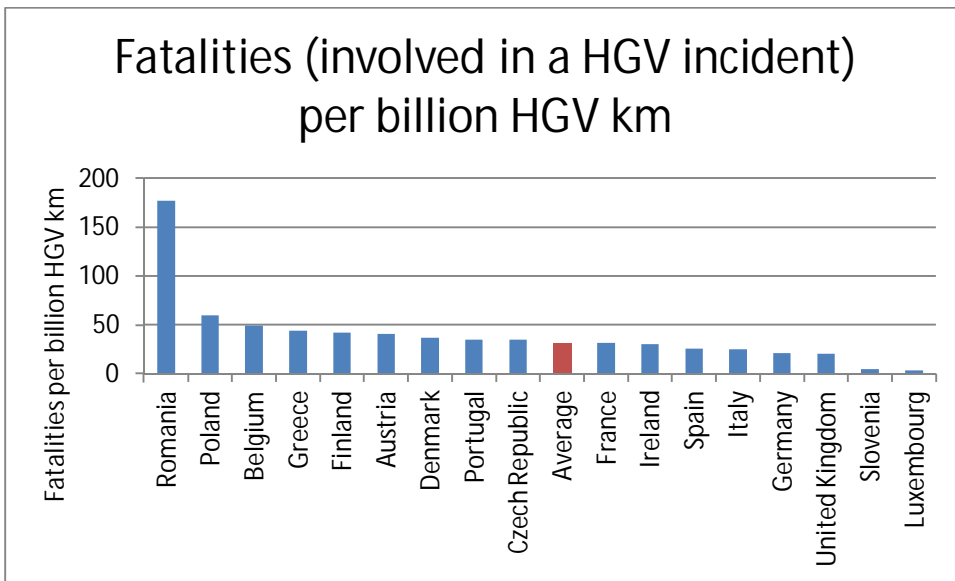


Figure 5.1 – Fatalities Caused by Incidents Involving a HGV per Billion HGV Km Driven⁸⁹

Figure 5.1 shows that Romania has, by far, the highest rate of HGV fatalities at 177.3 per billion HGV km driven. By comparison, Luxembourg has the lowest rate at 3.8 per billion HGV km driven. The average of all the Member States in Figure 5.1 is 31.5 per billion HGV km driven. Note that the four Member States looked at in comparison shows that Poland (59.9) has the higher rate of HGV fatalities compared to France (31.4) but Italy (24.9) has a higher rate than Germany (21.3). This show that despite Germany having more fatalities, fatalities in Germany occur at a lower rate than in Italy due to the higher distances driven in Germany by HGVs.

⁸⁹ AECOM calculations derived from fatality data from Table 5.1 and HGV km driven from Eurostat

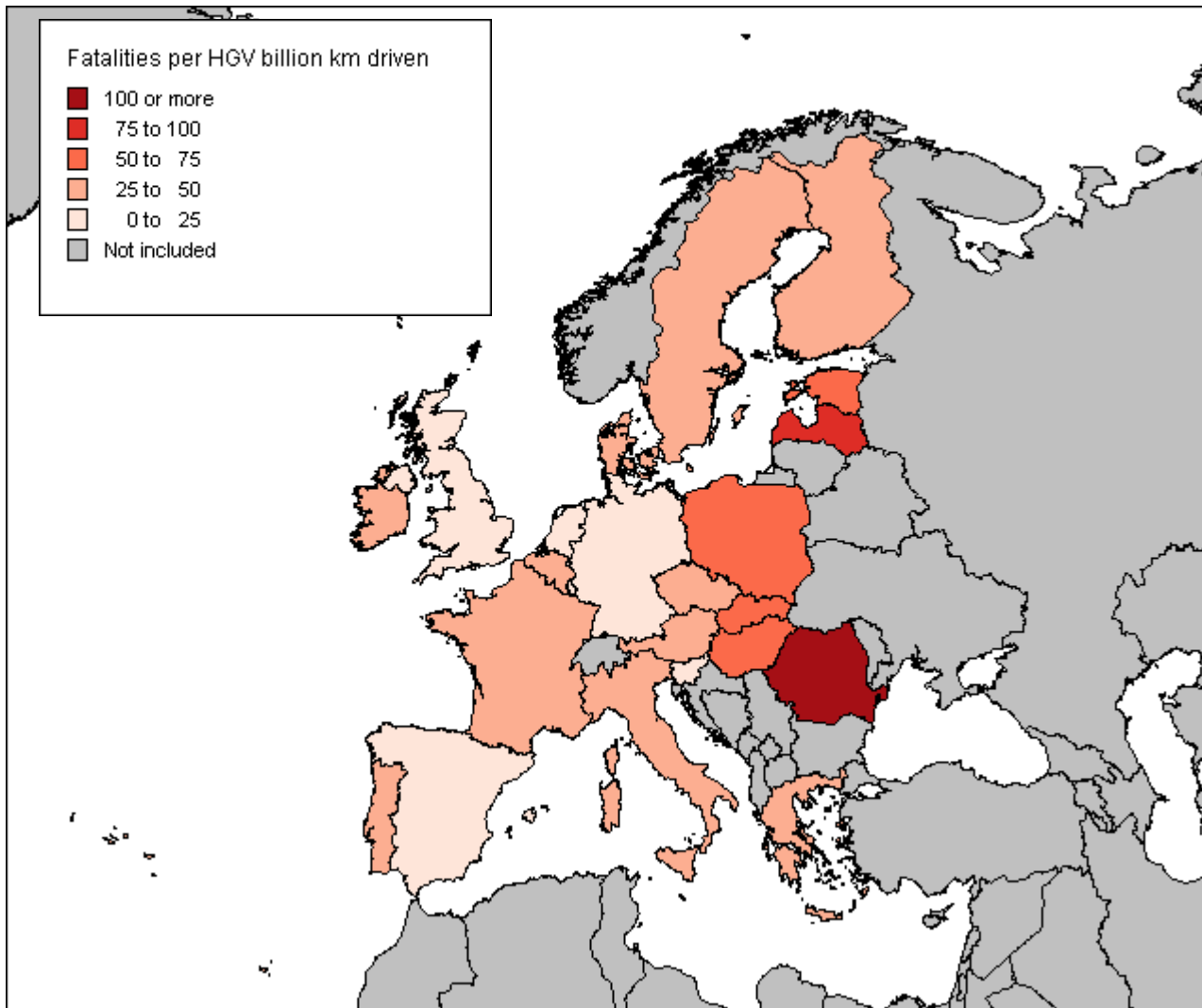


Figure 5.2 – Fatalities Caused by Incidents Involving a HGV per Billion HGV km Driven⁹⁰

It can be seen from Figure 5.2 that the west of Europe generally has a lower rate of incidents, per billion km, than the east of Europe.

It is possible to understand the type of road user that was killed when an incident involving a HGV occurred as shown in Table 5.2.

⁹⁰ Cartographical Representation of Figure 5.1

	Involving a HGV	
	Fatalities	%
HGV Occupant	722	15%
Bus or Coach Occupant	23	0%
Car Occupant	2,453	50%
LGV Occupant	175	4%
Moped Rider	104	2%
Motorcycle Rider	328	7%
Pedal Cyclist	296	6%
Pedestrian	754	15%
Other	52	1%
Total	4,907	100%

Table 5.2 – 2010 Fatality Types Caused by Incidents Involving a HGV⁹¹

It can be seen in Table 5.2 that nearly half of all fatalities are people in cars. Vulnerable road users, considered to be users of two wheel transport and pedestrians, make up 30% of fatalities.

5.3 Cause of Incidents

Most incidents are due to human error, such as the failure to observe driving rules or poor understanding or insufficient control of the vehicle⁹². There is little data that provides insight into the cause of incidents but it is suggested that driver fatigue is an important factor in 20% of traffic incidents involving HGVs⁹³. Working time is a factor relating to driver fatigue⁹⁴.

The EC sponsored SafetyNet project recorded incident data between 2005 and 2008 for Germany, Italy, the Netherlands, Finland, Sweden and the UK. It recorded incident causation. For HGVs (which also includes bus drivers), the distribution of incident causation is shown in Figure 5.3

⁹¹ Traffic Safety Basic Facts 2012, Heavy Goods Vehicles and Buses, 2012, *European Road Safety Observatory*

⁹² Document COM(2003) 311 final, Communication from the Commission, European Road Safety Action Programme, Halving the number of road accident victims in the European Union by 2010: A share responsibility, 2003, *European Commission*

⁹³ http://ec.europa.eu/transport/road_safety/users/professional-drivers/index_en.htm

⁹⁴ Road Transport Working Time Directive Self-employed and Night Time Provisions Report and Annexes, 2006, *European Commission*

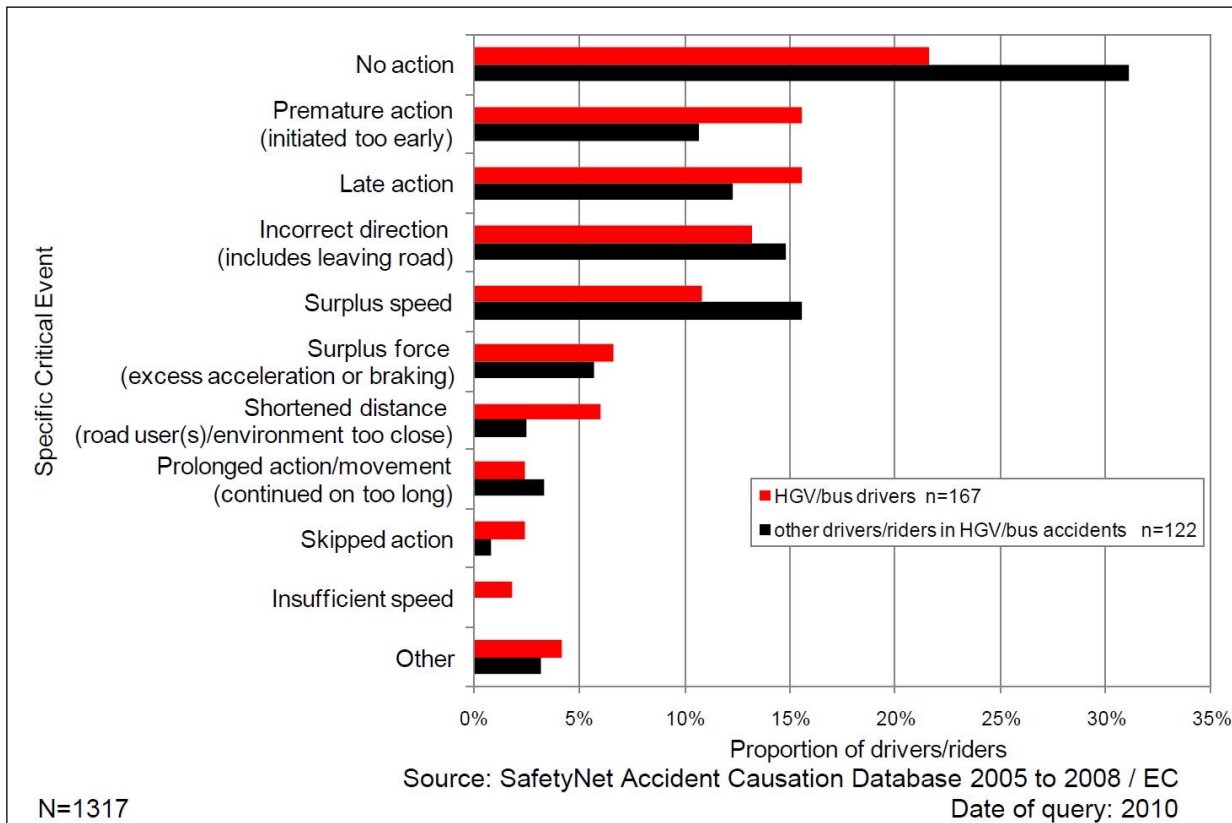


Figure 5.3 – HGV and Bus Driver Incident Causation⁹⁵

Figure 5.3 shows that the driver could be ultimately to blame (i.e. other might include mechanical fault) for most of the incidents recorded. Thus it may be concluded that driver training could help to reduce the number of incidents.

Table 5.3 concerning the causes of HGV accidents shows that ‘faulty diagnosis’ and ‘observation missed’ are the two dominant causes of truck accidents⁹⁶. Faulty diagnosis is an incorrect or incomplete understanding of road conditions or another road user’s actions. It is linked to both information failure (e.g. a driver thinking another vehicle was moving when it was in fact stopped and colliding with it) and communication failure (e.g. pulling out in the continuing path of a driver who has indicated for a turn too early). The frequent cause leading to observation missed is permanent sight obstruction. This refers to vehicle blind spots (see Figure 5.4) where drivers cannot see part of the road infrastructure or other road users.

⁹⁵ Accident Causation Database 2005 to 2008, 2010, *SafetyNet*

⁹⁶ Traffic Safety Basic Facts 2012, Heavy Goods Vehicles and Buses, 2012, *European Road Safety Observatory*

Links between causes	Frequency
Faulty diagnosis – Information failure (between driver and traffic environment or driver and vehicle)	43
Observation missed – Permanent sight obstruction	23
Observation missed – Distraction	13
Equipment failure – Unpredictable system functions / characteristics	10
Observation missed – faulty diagnosis	8
Observation missed – Permanent obstruction to view	7
Observation missed – Inadequate plan	6
Equipment failure – maintenance failure – condition of vehicle	6
Observation missed – inattention	5
Observation missed – Temporary obstruction to view	5
Others	69
Total	195

Table 5.3 – Ten most frequent links between causes – HGV or bus drivers

Source: SafetyNet Accident Causation Database 2005 to 2008 / EC, Date of query: 2010

Foreign vehicles on international movements are considered to cause a disproportionate number of incidents. On the M25 in the UK, incident investigators estimated that almost half of incidents were caused by foreign trucks⁹⁷. VOSA (Vehicle and Operator Services Agency), the UK vehicle standards agency, has found that trucks on international journeys have a higher rate of non compliance than those engaged in purely domestic journeys⁹⁸. This could be part of the reason why some Member States' enforcement authorities target foreign hauliers when undertaking roadside checks. Low compliance rates have a negative effect on road safety. There are several possible reasons for this which include fatigue, unfamiliar driving behaviours by local drivers, less frequent scheduled maintenance and in this case the fact that in the UK, the steering wheel is on the other side of the cab which presents difficulties, particularly with regards to visibility. The case is the same for UK HGVs on foreign roads.

⁹⁷ Lorry Road User Charging – A Way Forward for the UK, 2010, *Metropolitan Transport Research Unit*

⁹⁸ Impact Assessment on Common Rules for Conditions of Occupation for a Road Transport Operator and Access to the International Road Haulage Market, 2007, *European Commission*

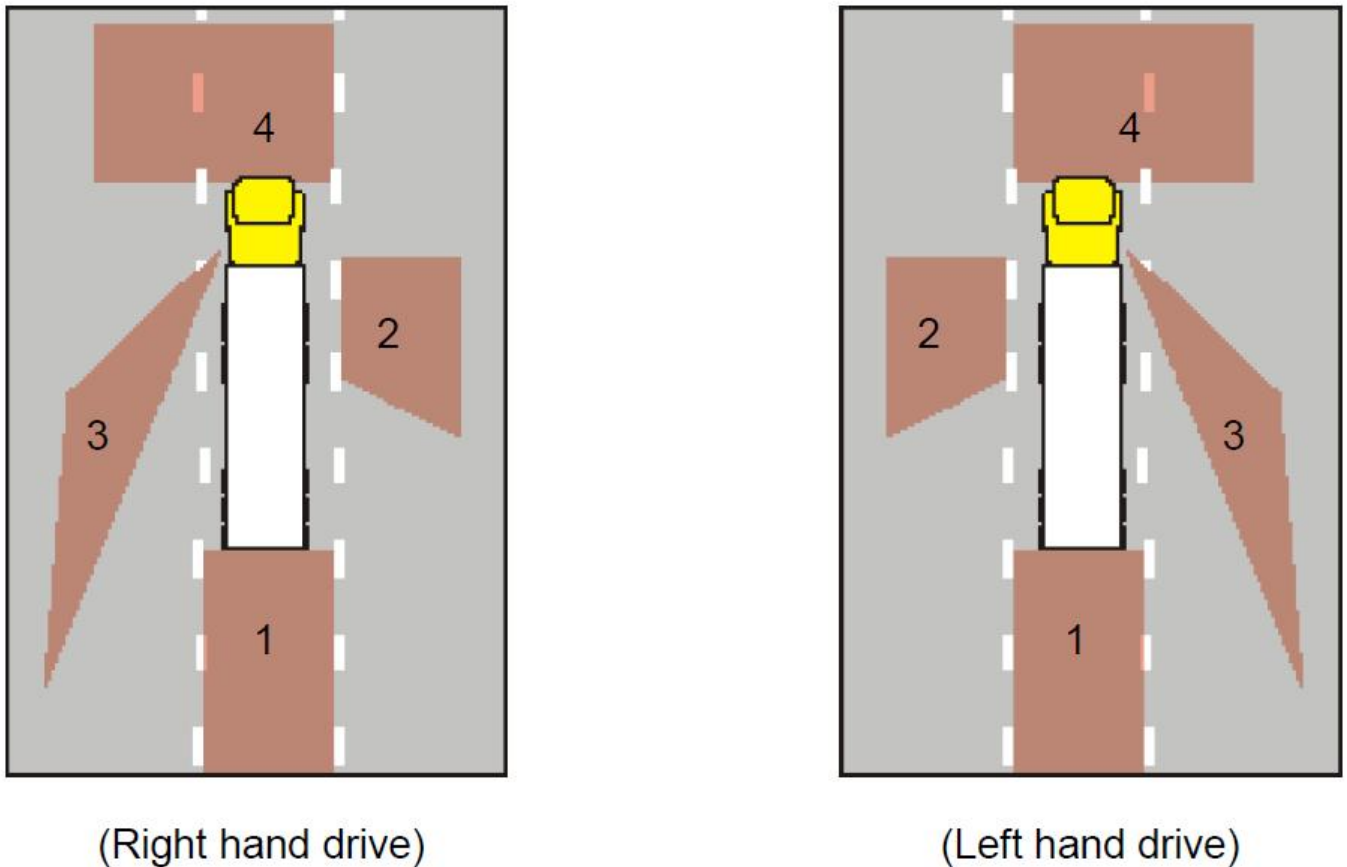


Figure 5.4 – Common Blind Spots for HGVs

Figure 5.4 shows the common blind spots for both right hand drive and left hand drive HGVs:

- Area 1 – is the area directly behind the HGV for a distance of 10 metres. This obscuration usually only effects high sided vehicles however it is considered to have little or no influence on an HGV causing a collision in moving traffic, however it is an issue when the HGV is reversing or parking
- Area 2 – is on the driver's side of the vehicle and commences at a point adjacent to the rear of the cab and finishes approximately one third of the way along the trailer for a width of 2.5-5 metres. This blind spot obscures vehicles travelling parallel to the HGV
- Area 3 – is an area to the passenger's side of the HGV and projects at an angle of approximately 30 degrees from the driver's position and proceeds past the rear of the HGV
- Area 4 – potentially provides the worst blind spot area. Depending on the height of the cab and the driver can obscure an area in front of the vehicle but also an area extending past the passenger's side of the HGV. This provides an area where vehicles, particularly cars and vulnerable road users can be 'lost' by the driver

HGVs are involved in 10% of all incidents that involve injury and the seriousness of these incidents is two to three times higher than that of other incidents⁹⁹. It is suggested that intense competition could be a factor behind risky behaviour of transport drivers¹⁰⁰, with pressure to finish driving before driver hours elapse, pressure from customers to get the goods delivered on time and thus pressing companies to cut corners. Performance based wages and bonuses can incentivise drivers to complete a route as quickly as they can¹⁰¹. Performance based bonuses which endanger road safety are unlawful under Regulation (EC) No 561/2006¹⁰².

The road type appears to have some implication on the number of incidents involving a HGV. Generally, a motorway type road will have fewer incidents involving a HGV than an A type road. This could be because there is more segregation of vulnerable road users from other traffic on motorways (i.e. pedestrians and pedal cyclists are not allowed). The number of HGV incidents decreases at the weekend as road movements decrease¹⁰³.

5.4 Cost of Incidents

The cost associated with a road traffic accident depends on its severity. There are various external cost valuation methodologies. Table 5.4 shows the valuations used by the European Commission in its work on the prioritisation of vehicle safety technologies.

Severity	Cost per incident
Fatality	€1,018,200
Severe	€142,100
Slight	€23,100

Table 5.4 – Cost per Incident to Society¹⁰⁴

These values are based on the standard uniform incident costs and it can be seen that the costs associated with a fatality are over €1m. This fact, combined with the fact that HGVs tend to be involved in a disproportionate amount of fatal incidents means that there is much for society to gain (or conversely, avoid losing) by reducing and eliminating incidents involving HGVs.

5.5 Enforcement

Whilst Member States have comparable legislation regarding safety legislation, there are big differences in the enforcement of the rules¹⁰⁵. France and the Netherlands have introduced a centralised system for handling fines.

Despite having comparable legislation, there could be an element of a lack of harmonisation between Member States over what are acceptable safety standards. According to RoSPA¹⁰⁶ (the Royal Society for the Prevention of Accidents), the UK has some of the most stringent vehicle maintenance standards in Europe and that HGVs that would be deemed unsafe by UK standards may be able to use the UK road network¹⁰⁷.

⁹⁹ Impact Assessment on Common Rules for Conditions of Occupation for a Road Transport Operator and Access to the International Road Haulage Market, 2007, *European Commission*

¹⁰⁰ What is Important for Traffic Safety of HGVs, 2011, *University of Turku*

¹⁰¹ Branch Survey on Working Conditions in Freight Road Transport for Austria, 2003, *FORBA*

¹⁰² Regulation (EC) No 561/2006 of the Parliament and of the Council of 15 March 2006 - on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, *OJ L 102, 11.4.2006, p. 1–14*

¹⁰³ Left-hand Drive HGVs and Foreign Truck Drivers in OTS, 2007, *RoSPA*

¹⁰⁴ Cost-Benefit Assessment and Prioritisation of Vehicle Safety Technologies, 2006, *DG-TREN, European Commission*

¹⁰⁵ Technical Assistance in Support of the Preparation of the European Road Safety Action Programme 2011 – 2020, 2010, *COWI, European Commission*

¹⁰⁶ Left-Hand drive HGVs: Dangers and Solutions, 2007, *RoSPA*

¹⁰⁷ Left-Hand drive HGVs: Dangers and Solutions, 2007, *RoSPA*

Nearly all Member States have variable speed limits based on vehicle types. A third of Member States require lower blood alcohol levels for professional drivers and some Member States require a zero blood alcohol level. Fatalities where alcohol played a factor are rather high, up to 20%-40%. Table 5.5 shows the varying blood alcohol limits between the Member States. Note that the Czech Republic actually has a zero legal requirement, but will issue fines or penalty points for up to 0.8 mg/ml after which it becomes a criminal offence. It should also be noted that BAC limits for professional drivers are lower than the BAC limits in the following countries: Belgium, Croatia, Germany, Greece, Spain, Italy, Lithuania, Luxembourg and Austria.

Member State	BAC Limit (mg/ml)	BAC Limit Professional Drivers
Belgium	0.5	0.2
Bulgaria	0.5	0.5
Croatia	0.5	0.0
DenmarkCyprus	0.22	0.22
Czech Republic	0.0	0.0
Denmark	0.5	0.5
Germany	0.5	0.0
Estonia	0.2	0.2
Ireland	0.5	0.5
Greece	0.5	0.2
Spain	0.5	0.3
France	0.5	0.5
Italy	0.5	0.0
Latvia	0.5	0.5
Lithuania	0.4	0.2
Luxembourg	0.5	0.2
Hungary	0.0	0.0
Malta	0.8	0.8
Netherlands	0.5	0.5
Austria	0.5	0.1
Poland	0.2	0.2
Portugal	0.5	0.5
Romania	0.0	0.0
Slovenia	0.5	0.0
Slovakia	0.0	0.0
Finland	0.22	0.22
Sweden	0.2	0.2
United Kingdom	0.8	0.8

Table 5.5 – Blood Alcohol Content Limits for Member States¹⁰⁸

¹⁰⁸ Blood Alcohol Limits Worldwide, 2010, International Centre of Alcohol Policies <http://www.icap.org/Table/BACLimitsWorldwide>

Spot fines legislation was introduced in the UK to improve enforcement levels of laws against foreign vehicles. Previously, it was difficult to follow up offences by foreign vehicles as once they had left the UK, as the offending driver or vehicle was difficult to locate. Introducing spot fines had the effect of reducing the number of incidents caused by foreign vehicles, particularly around the Channel ports¹⁰⁹ where foreign vehicles can be found in greater concentrations.

5.6 Steps to Improve Safety

According to a report by the Transport Research Laboratory in the UK, a reduction in average speed of 3km/h would save between 5,000 and 6,000 lives each year in Europe and would avoid 120,000 to 140,000 incidents. This would save €20 billion¹¹⁰.

The driver CPC, of which training for is continuous, incorporates elements that promote safer driving. There are courses such as SAFED (Safe and Fuel Efficient Driving) for HGV drivers which promote safer driving through defensive driving techniques. There are insurance companies that will recognise that SAFED driver training does improve safety and offer a discount on insurance premiums.

The Commission has looked at ways that technology can be introduced that would improve safety levels. There are now technologies that can help, such as on board cameras. There are companies out there that offer a number of products that can help to improve the safety of the HGV and reduce incidents. These include:

- **Additional mirrors** – these cover blind spots on a HGV, of which there are many, which helps a driver to identify other road users
- **Additional lighting** – additional lighting makes the vehicle more visible, particularly during situations where natural light source is not readily available
- **Markings** – particularly on the rear of the vehicle, make other road users aware of the HGV and its characteristics
- **Onboard cameras** – provide greater visibility for the driver, particularly when reversing
- **Reversing sounds** – to warn others of a reversing manoeuvre that is being performed
- **Proximity sensors** – notify the driver of any objects and their relative proximity to the vehicle, these can be useful for avoiding obstacles when performing difficult manoeuvres
- **Under run equipment** – protect other road users from going underneath the vehicle and thus prevent their death from being crushed by the HGV, they can be located at the front, rear and side of the HGV
- **Speed limiters** – restrict the maximum speed at which a HGV can travel, thereby reducing the chance of an incident happening due to excessive speed
- **Eyelid detectors** – this involves a sensor that can monitor the number of times a driver blinks per minute which can alert a driver to impending fatigue. If a driver does not blink enough times then an alarm is raised which the driver can act upon
- **Wheel rim protector** – this is a device that fits over the wheel and prevents wheel nuts from hurting other users should they snap off
- **Wheel nut tightness indicators** – these are coloured flags that fit over the wheel nuts and indicate whether the wheel nuts are loosening. Tyres that have come loose from the HGV are a real and extremely dangerous situation, as the tyres can easily weigh upwards of a tonne and when travelling at high speed can cause significant damage
- **Rest period alarms** – notify a driver of an impending mandatory rest period

Copenhagen in Denmark has taken steps to reduce the number of incidents involving cyclists¹¹¹. Copenhagen has a high number of cyclists (60%). The steps taken include:

¹⁰⁹ Lorry Road User Charging – A Way Forward for the UK, 2010, *Metropolitan Transport Research Unit*

¹¹⁰ Document COM(2003) 311 final, Communication from the Commission, European Road Safety Action Programme, Halving the number of road accident victims in the European Union by 2010: A share responsibility, 2003, *European Commission*

¹¹¹ Page 35 of the 5th Road Safety PIN Report, 2010, *ETSC* http://www.etsc.eu/documents/ETSC_2011_PIN_Report.PDF

- Restrictions for HGVs over 18 tonnes
- Recommended routes for HGVs through the city
- Technology to warn HGVs of cyclists' locations

5.7 Concluding Remarks

The EU objective is to reduce the number of road incident fatalities and the aim is to make this zero. Whilst efforts have been made that in turn have yielded a reduction in fatalities, there are still fatalities occurring.

HGVs, as a result of their large and heavy characteristics, are considered to be involved in a high proportion of incidents that result in fatalities, given their numbers. It must be noted that HGV drivers are professional drivers who are highly skilled in their vehicle's operation and this must have an effect on reducing the risk of an incident occurring. When an incident occurs that involves a HGV, the incident is usually very serious.

Foreign drivers face a number of additional difficulties when driving on unfamiliar roads which may increase their likelihood of being involved in an incident. These include:

- Cultural and behavioural factors
- Poor/restricted view of the road and other road users
- Increased mental load

Legislation has been introduced to reduce the risk of certain incident causes occurring. For example, drivers hours' regulations limits the number of hours a driver can drive and stipulates mandatory rest periods. This is to reduce the number of incidents that are caused due to fatigue.

Training has been administered to drivers that can help to improve safety. There are technologies available which have the effect of reducing the chance of an incident occurring, or if an incident does occur, reduce the chance of a fatality or improving the chance of survival.

6 Driver Rest Areas

6 Driver Rest Areas

6.1 Introduction

The EU is highly committed to reducing the number of road accidents by avoiding unsuitable parking through an information service and ensuring parking optimisation. Directive 2010/40/EC on the framework for the deployment of Intelligent Transport Systems (ITS) in the field of road transport and for interfaces with other modes of transport lays the groundwork for coordinated and coherent deployment and use of ITS within the Union. One of the defined priority actions is the provision of information services for safe and secure parking places for trucks and commercial vehicles and the provision of reservation services for safe and secure parking places for trucks and commercial vehicles.

One of the problems the Regulation is addressing is the lack of access truck drivers and operators have to reliable information about parking locations and the availability of parking places at those locations. If such information was made more readily available then it would allow truck drivers to make the right choices when deciding to stop and park their vehicles so as to comply with the relevant social legislation. Commission Delegated Regulation (EU) No885/2013 of 15.5.2013 supplementing ITS Directive 2010/40/EU aims to define harmonised and standard rules for Europe-wide implementation of an information service for safe and secure parking places for trucks and commercial vehicles. The objective is to optimise, through binding functional specifications for the provision of these information services, the use of parking places as well as to enhance road safety and security of truck drivers.

6.2 Issues

Driver rest areas are important in terms of road safety, preserving local amenities, reducing crime, and addressing the general needs of HGV drivers. The ability of a driver to be able to take rests is not only good for their amenity; it is also a required area for their compliance with Drivers' Hours regulations. The areas for rest can either be road-side or in dedicated Truck Parking Areas (TPAs). Dedicated TPAs can take several forms; they can range from an area of hard-standing to a full, secured area with driver amenities. Where sufficient TPAs are not present, the pricing structure is incorrect or they are not secure (for example) there can be significant external impacts to local areas and communities. Erroneously or inconsiderately parked vehicles can be a politically charged issue. There are approximately 2,800 known TPA locations across Europe.¹¹² These provide varying degrees of standard in terms of access, facilities and security.

Truck Parking Areas provide an essential service to the road freight industry and European community. They help to:

- Provide Driver Amenity
- Provide Additional Services
- Improve/Retain Social Amenity
- Support Local Economies
- Ensure Compliance
- Reduce Opportunities for Crime
- Act as a Sector Hub/Information Service.

There is a continuing concern among the trade press, trade associations and wider stakeholders that many drivers are facing difficulty in finding safe and secure places to take required breaks. This is compounded by perceptions of policy and development barriers. Previous research does suggest that once the 'mask' of average utilisation of lorry parking is uncovered, that there are many hotspots suffering from either over utilised facilities, or simply a lack of any adequate facilities at all.¹¹³

¹¹² Study regarding secure parking places for trucks and commercial vehicles, telematics-controlled parking and reservation systems, 2011, *European Commission*

¹¹³ National Lorry Parking Study of England, 2011, *Department for Transport UK*

Some of the key issues include:

- Lack of sufficient TPAs
- Lack of quality of TPAs
- Lack of planning framework supporting TPAs

There are a range of issues surrounding the provision of TPA and user's needs. Again these vary across Europe but some common themes are identified that are giving rise to an emerging need to take action and prevalence of the subject on the European agenda. Some of the main issues are summarised as follows:

6.2.1 Lack of Sufficient TPAs

There is a high demand for truck parking across Europe due to the strategic requirement of road freight activity, with over 30 million active trucks able to operate in 2010¹¹⁴. A lack of appropriate facilities and over-crowding of some truck parking areas at specific peak times leads to issues such as:

- Vehicles using inappropriate areas to park, such as business parks and residential areas
- Dangerous parking (e.g. on motorway slip roads or dangerously within sites)
- Driving beyond statutory hours to find a suitable location
- Increases the risk of crime

6.2.2 Lack of Quality of TPAs

Europol's¹¹⁵ study into cargo theft published in 2009 highlighted the extent of criminal activity. Using information collected and collated by the Transported Asset Protection Association (TAPA), the report noted that European losses due to cargo theft had surpassed €8 billion (\$10.8 billion), with the UK, France, Germany and Italy being notable theft 'hot spots'. An estimated €450 million is not declared by the transport operators¹¹⁶.

The impacts of this level of crime are far reaching affecting aspects of society such as business growth, employee's retention, insurance costs, image of the sector, police resource, policy, risk scenarios and supply chain efficiency.

Linked to the issue of road freight crime there is an increasing market requirement for higher TPA standards in terms of security infrastructure, processes, hardware and software. This is mainly for the protection of high value and dangerous goods, but also for driver safety. Currently there is a lack of secure TPA throughout Europe with adequate standards.¹¹⁷

6.2.3 Lack of Planning Framework

A dedicated multi-member state consideration of truck parking in light of the changes to Drivers' Working hours has not resulted in a planning framework which encourages a response to the issues. There are many other factors at play including land prices, payment models, ability to pay and land availabilities.

The profitability of TPA varies extensively across Europe with no single business model that can meet all requirements. This is based on different:

- Pricing structures
- Approaches to funding development and availability of funding (public/private)
- Adoption and awareness of available standards
- Local planning requirements and policy
- More profitable alternative land uses
- Business rates and taxation laws

¹¹⁴ Eurostat, [road_eqs_lornum], 2012, *Eurostat*

¹¹⁵ Cargo Theft Report - Applying the Brakes to Road Cargo Crime in Europe, 2009, *Europol*

¹¹⁶ Organised Theft of Commercial Vehicles and their Loads in the EU, 2007, *European Parliament*

¹¹⁷ Truck Parking Label, 2010, *European Commission*

- Insurance costs
- Availability of loans
- Willingness to pay for facilities

These barriers are preventing the public and private sector from developing a network of secure TPA, meaning the associated challenges and issues cannot be fully addressed.

6.2.4 Industry Case Studies

The following section details the case study findings from the stakeholder and haulier interviews conducted as part of this research.

Case Study: European Commission: *Freight crime is aggravated by a lack of security at truck parking areas, most truck operations work on a highly competitive cost model and are not willing to pay for non essential services such as parking or facilities like showers or toilets, apart from providing additional spaces, the following solutions may relieve a situation such as improved information about truck parking area, parking places reservation and optimisation of the utilisation of existing sites.*

Case Study: Portugal (a): *The driver pays their own expenses for parking and other associated costs. The driver is responsible for managing their own driving time hence parking provision is not really an issue for us.*

Case Study: France: *We always try to stop at a secure parking place. We use the IRU (International Road Transport Union) list of secure parking. The drivers pay for the parking but they are always reimbursed by the company. They believe that there is a lack of secure parking provision and sometimes have to detour to find a place to park, this is particularly difficult when some clients will insist that their goods are secured. The lack of secure parking means theft is widespread and theft of loads means a threat to drivers.*

Case Study: Netherlands (a): *Germany has started charging for lorry parks and therefore 95% of our drivers have to sleep in their cabs. We pay €15 a night for being away from home. We want better provision. In France we park in the good laybys provided mainly free but we have to pay in other countries and there is less provision. Need to be specialised in the markets we are in, chemicals, food, groupage.*

Case Study: Netherlands (b): *There are too few Truck Parking Areas which are important for driver's rest. Member States that apply lorry bans should be obliged to provide sufficient parking areas. The Charging for parking is a separate issue and one that the UK was criticised for charging a lot for these when many other European countries offer free parking. But the need to have secure truck parking to try and reduce the growing truck crime is a priority.*

Case Study: Poland: *We allow our drivers the choice of where to park but if carrying a valuable load they must use secure facilities. Drivers receive their night out as part of their salary but if they must use overnight parking then the company will reimburse. The company doesn't experience a shortage of secure parking spots.*

Case Study: Portugal (b): *It is our policy to park at our own depots where possible. It depends on the load type, for example, tyre loads must stop at an LS depot. Routes are planned to account for this. Drivers are given between €500-€800 to spend on expenses as part of their salary. The level of truck parking provision is not sufficient throughout Europe. In Spain they would like a truck stop in Zaragoza, Salamanca, Merida (sic) near Badajoz. In France they would like a truck stop at Limoges, Bourges, Bordeaux and Avignon*

Case Study: Hungary (a): *Where possible they try to use our depots throughout the network to park vehicles overnight. This generally works well. Sometimes parking will have to be found. The company has a budget for this, as they are often looking for secure paid parking if they cannot park at our depots. However, secure parking is few and far between in Hungary. There is more secure parking in Austria and Germany. Not enough parking throughout Hungary and beyond.*

Case Study: Hungary (b): *There is not enough parking in Hungary, and it is not secure. There needs to be more secure and general parking. Sometimes we have to park vehicles in town centres. The driver will often receive a HUF 30,000 fine (€100). The police are becoming more strict on penalising trucks parked within the city limits, especially if on a supermarket car park, which are often very convenient places to park or have been in the past. Motorway parking is perhaps considered safer, although before the fines were handed out in the town centres, drivers often felt reasonably safe parking within towns compared to in the countryside or industrial estate.*

6.3 Progress

The issues that surround truck parking have been on the agenda of the European Commission for a number of years. Steps have been taken and action continues towards meeting the present challenges faced by the freight industry. Organisations and Groups beyond the Commission are also active in trying to meet such issues at national, international and European levels such as the

IRU (International Road Transport Union), ITS (Intelligent Transport Systems) Action Plan, UICR (Union Internationale des Chauffeurs Routiers), Europol, TAPA (Transported Asset Protection Association).

A range of recently completed work and ongoing action on the subject of TPA includes the following research and funding initiatives, it should be noted that this is not a complete list.

6.3.1 ITS Action Plan¹¹⁸

On the 16th December 2008 the European Commission adopted an ITS Action Plan (COM (2008) 886) for road transport and interfaces with other modes. One of the key priority areas involves road safety and security. Recently a study covering secure parking places for trucks and commercial vehicles, telematics-controlled parking and reservation systems has been released that provides a comprehensive overview of the issues at play.

The general objective of this study was to provide support on the subjects of secure parking places for trucks and commercial vehicles, and on telematics-controlled parking and reservation systems.

The conclusions recommended research into a study assessing the effectiveness of TPA-IRS in combating off-site parking, which should quantify:

Truck drivers:

- Need for TPA static and occupancy information service in-vehicle
- Willingness to pay for TPA static and occupancy information service in-vehicle
- Need for TPA reservation service in-vehicle
- Willingness to pay for TPA reservation service in-vehicle Hauliers
- Need for TPA static and occupancy information service in back-office
- Willingness to pay for TPA static and occupancy information service in back office
- Need for TPA reservation service in back-office
- Willingness to pay for TPA reservation service in back-office

TPA operators:

- Expected benefits, drawbacks and business impact of publishing TPA occupancy information
- Expected investment in TPA occupancy data collection
- Expected operational costs of TPA occupancy data collection
- Expected investment in TPA reservation system
- Expected operational costs for TPA reservation system

Public and private road authorities:

- Expected benefits, drawbacks and business impact of TPA occupancy information and reservation service
- Willingness to invest in VMS system for publishing occupancy information
- Expected operational costs of VMS system for publishing occupancy information

6.3.2 EasyWay

EasyWay is a European ITS deployment project on the TEN-T network, co-funded 20% by the EU from the TEN-T fund which started in 2007. It is currently in phase 2, which begun at the end of 2010. EasyWay includes Member State deployments of a number of dynamic information systems on truck parking space availability and secure parking areas, mainly in Germany, France and Italy (where it seems there are serious capacity problems) as well as a number of feasibility studies in other countries.

A key part of EasyWay are also the European Study groups, which are supposed to help to harmonise European deployment of ITS. In the Freight and Logistics Services European Study group, there is a key sub-group on ITP which has developed deployment guidelines which give high level instruction on how to deploy truck parking information services including defined levels of service. In 2011, these guidelines were being extended to include secure truck parking.

¹¹⁸ Study regarding secure parking places for trucks and commercial vehicles, telematics-controlled parking and reservation systems, 2011,

6.3.3 Secure European Truck Parking Operational Services

Secure European Truck Parking Operational Services (SETPOS) is a 50% co-funded research and demonstration project of the EU, which finished in 2009. This project had three main objectives:

- Achieve consensus on a common standard for secure truck parking
- Construct a number of secured truck parking areas in trans-border regions to demonstrate the standard
- Establish an information, guidance and reservation ICT platform for all types of truck parking

One of the main outputs of this project was the Secure European Truck Parking Best Practice Handbook covering;

- SETPOS Security Standards
- Business Case

6.3.4 LABEL (Truck Parking Label)

This is a recently completed EU co-funded research and demonstration project aimed at establishing a certification system for Truck Parking Areas (TPAs) for the following categories: security, safety, comfort & dignity and food & shopping.

LABEL claims the following characteristics:

- LABEL accesses existing approaches. It carries over findings from the project SETPOS and reviews input from other sources. LABEL moves on from these sources to generate a European standard certification scheme that is to be recognised by: certifiers, insurers, public authorities, motorway operators, shippers, forwarders, carriers and truck parking area operators.
- The LABEL scheme consists of security and quality requirements with a multi-level ranking and provides a complete European “Blue Flag” scheme. The project also works out certification rules and guidelines based on which a quality stamp can be provided.
- The “practical” objective of LABEL was the actual certification of at least 50 truck parking areas in at least 10 EU Member States. Creating a Label for (Secured) truck parking areas along the Trans European Road Network.

6.3.5 International Road Transport Union - TRANSpark

The International Road Transport Union (IRU), supported by ECMT, have developed TRANSpark, which is an internet platform and interactive application to register and search information covering about 2800 TPAs around 42 countries.

6.3.6 Council of the European Union

At the 3043rd justice and home affairs Council meeting in Brussels on 8 and 9 November 2010 a resolution on preventing and combating road freight crime and providing secure truck parking areas, was put forward. The provided a wide acceptance of a range of issues such as common standards, gaps in knowledge, cargo theft crossing borders, and a need for shared responsibility.

6.3.7 North Sea Freight Intelligent Transport Solutions

North Sea Freight Intelligent Transport Solutions (NS FRITS) is set to dramatically improve accessibility for the road freight sector in the seven countries of the North Sea Region by improving safety as well as efficiency and reducing the risk of accidents and security threats for drivers of Heavy Goods Vehicles.

The first project of its kind, NS FRITS will provide live in-cab communications in a series of languages for drivers, transport managers and freight handlers.

The system will help:

- Improve traffic flow within major transport corridors
- Address logistical problems around congestion and freight volumes
- Improve driver safety by highlighting poor weather conditions, road accidents, traffic disruption and local driving conditions
- Reduce carbon emissions by encouraging better driving and avoiding extensive engine idling times
- Reduce the risk of security threats, for example through providing information about crime hotspots, secure parking locations and local policing practices

The Interreg IVB North Sea Region Programme is co-funding the groundbreaking €4.9m NS FRITS project; 50% of which is funded from Europe. A public/private sector partnership drawn from the UK, Germany, the Netherlands and Sweden find the remaining 50% of the project costs and bring together representatives from high-tech communications, logistics, crime reduction, education, policing and transport planning.

6.4 Gaps in Knowledge

Although there are a range of organisations, completed and ongoing projects, research initiatives, support from Governments and other wider bodies of knowledge working to combat the issues discussed in this chapter, there still remains a number of gaps in understanding and areas where joined up approaches would be more beneficial. The recent study by the ITS Action Plan provides the most up to date list of some of the main gaps identified, these are as follows:

- The data on freight crime is not consistently documented. The yearly costs related to freight crime remain a rough estimate based on limited and inconsistent data across Europe and is not mapped consistently in any detail. Given the evidence that there are crime hotspots and that it is a localised phenomenon, this is insufficient
- The available documentation offers little evaluation about the benefits of secure parking in reducing freight crime, although it is clear that high security has a high impact. However without a good understanding of the base line crime levels, it is hard to formulate policy for prioritising high security locations. The impacts of lower security measures are not understood at all
- The result of labelling TruckInform sites from the LABEL projects could be useful in order to have an overview of the situation of services provided in several parks throughout Europe. But it will give a partial view of the situation, some more studies inventorying all the secure park working in Europe should be done to evaluate objectively the actual network and identify ways of progress
- Indicative investment and operating costs of building or upgrading secure TPAs (in particular the cost of security measures) are missing in the SETPOS guideline to be of real help for investors, however costs can vary greatly based on the size and context of the implementation. A sophisticated guidance model is required
- The parameters (security features, access, means of payment, services) ensuring the success of secure TPAs are not yet described accurately enough to guide investors toward a viable business model
- There is no information available to guarantee that the industry acceptance, standardisation and commercially enabled certification of the security levels of TPAs will get the insurance market to recognise secure parking in their policies and thus incentivise usage
- Truck parking information services providing information on secure parking do not yet have full coverage or a high enough level of data quality on secure parking

6.5 Further Potential Action

Based on the findings of the ITS Action Plan report a number of recommendations have been made. These represent some of the latest opportunities and challenges that face Stakeholders, including Member States and the Commission.

6.5.1 ITS Action Plan Recommendations:

European harmonised data collection on freight crime, truck parking demand, capacity and deficits

Recommendation 1: Harmonised data collection on truck parking demand, capacity and deficits

Recommendation 2: Harmonised data collection on freight crime

Recommendation 3: Basic characteristics of harmonised and optimised European truck parking information, reservation services

Recommendation 4: Definition of EasyWay truck parking information levels of service

Recommendation 5: Other requirements from EasyWay on information provision, booking and capacity enhancement

Recommendation 6: Knowledge / specifications still required for European truck parking information, reservation and capacity enhancement services

Recommendation 7: A European inventory of high security TPAs

Recommendation 8: Analysis of low and high security truck parking measures

Recommendation 9: Upgrade of SETPOS best practice handbook

Recommendation 10: Role of EasyWay in secure parking guidance and TPA information provision

Recommendation 11: Harmonised and optimised European security standards

6.6 High Level Group Linkage

The consultation exercise carried out via the High Level Group identified that truck parking issues were relevant to quality in the haulage sector, social issues and enforcement of road transport rules.

In the qualitative responses to quality in the road haulage sector approximately a quarter of respondents identified a need for better provision of secure parking. There was also a further example provided by the European Express Association, as an indicated solution to improving driver shortage issues:

“Governments and companies (shippers, transport companies, express sector, etc) should combine their forces in promoting the logistics industry as a whole and the job driver in particular. Subsidies for obtaining HDV licence could be applied. By increasing the security aspect of working in the road transport sector, for instance by increasing the number of secure parking areas, the drivers’ job can be made more attractive.”

6.7 Concluding Remarks

Lorry parks provide an essential service to the road freight industry. They are important in terms of road safety, preserving local amenities, reducing crime, and addressing the general needs of HGV drivers’ dignity. They also help to ensure seamless compliance with the EU Drivers’ Hours Rules. Research undertaken as part of this project has indicated that drivers who choose to park overnight in lay-bys often do so in order to save on the cost of parking in a lorry parking facility, either because the use of secure parking is not reimbursed, because the decision is in the drivers’ hands or because a suitable TPA is unavailable. The disparity between Member States’ perception of these issues and the provision of good parking appears to be entirely on a state by state basis.

7 Costs

7 Costs

7.1 Background

This chapter features a review of transport costs including staff remuneration rates, fuel, vehicle costs amongst other costs. In considering the cost categories an attempt has been made to use detailed information from haulier visits to do a cost comparison between selected Member States to see where there are fiscal operational advantages and disadvantages. The differences between statistical data and actual practice are considered.

7.2 Typical Costs

The typical costs of running a HGV can be split between:

- Fuel
- Driver Wages
- Taxation
- Other, such as Maintenance, Tyres and Financing

In their guidance document for transport managers, a UK trade association highlighted that total vehicle costs in the UK increased by 6.1% for 2010, or 2.5% if excluding fuel increases¹¹⁹.

7.3 Cost Breakdown

From the haulier interviews conducted by the AECOM study team, the typical cost breakdown for some Member States is shown in Figure 7.1.

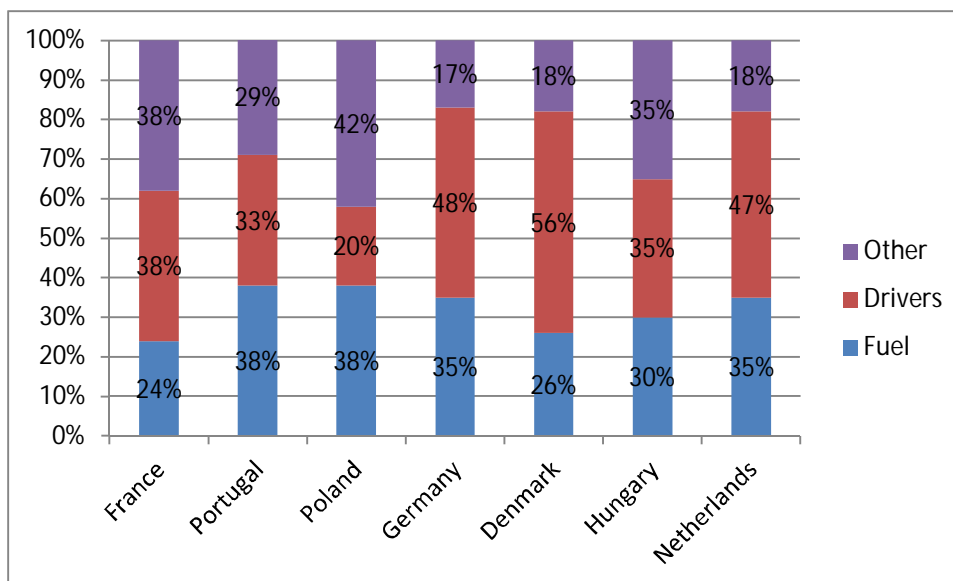


Figure 7.1 – Cost Breakdowns of Hauliers Belonging to Selected Member States¹²⁰

In Figure 7.1 “fuel” costs includes duties and taxes. “Driver” costs include; wages; training; and social charges. “Other” costs include; maintenance; insurance; taxes; depreciation; financing costs; and tyres.

Denmark has the highest proportion of its operating costs on drivers. Fuel costs do not have as broad a range as drivers with the range being from Poland and Portugal having the highest proportion (both 38%) and France having the lowest (24%) – this range is 14 percentage points.

¹¹⁹ The Logistics Report 2011, *Freight Transport Association*

¹²⁰ AECOM Consultation, 2011

Country	Total Operating Costs (€ per hour)	Driver Costs (as a percentage of Total Operating Costs)
France	80.10	38.9%
Germany	79.06	33.3%
Italy	76.94	33.5%
Austria	74.38	34.3%
Slovenia	60.14	30.5%
Spain	58.87	34.7%
Poland	52.05	23.0%
Hungary	51.44	27.5%
Romania	44.60	24.9%

Table 7.1 – Hourly Operating Costs of a HGV in Selected Member States¹²¹

Table 7.1 shows that France has the highest total operating costs per hour of all the Member States displayed. It can be seen that their drivers are a high proportion of these costs at almost 39%. These are the highest proportion of all the Member States considered in Table 7.1. The typical proportion of driver costs as a proportion of overall operating costs is around 33%. Some of the Eastern European Member States have the lowest operating costs shown and have the lowest proportion paid to drivers. For the most part, there is an East-West divide (Spain accepted) that shows that in the West of Europe, Member States incur at least €74 per hour operating costs, the average being over €77. In the East of Europe, Member States incur operating costs of no more than €61 per hour and the average is €52 per hour. So the difference in operating costs between East and West Europe Member States is, on average, €25 per hour.

Comparing the graph from the haulier interviews and Table 7.1 it can be seen that there are some slight differences, but also some similarities. For example, Germany, Italy, Austria and Spain have similar driver costs as a percentage of the total operating cost, whereas Poland and Romania show a marked difference.

7.3.1 Driver Wages

It is worth noting that the study team did find a problem in finding consistent data on driver costs which are often much more than just driver wages. Indeed establishing driver wages themselves proved difficult as in so many firms the basic wage for a 40 hour week may be significantly less than the actual weekly wage. There are different cost elements involved including, wages both basic and overtime, social security contributions, allowances e.g. for night out subsistence when the vehicle is away from the operating centre, and distance-based bonuses. It should be noted that certain bonuses for example those based on distance travelled may be contrary to the provisions of Regulation 561/2006, which under its Article 10 considers distance-based bonuses unlawful unless the driver's employer can prove that these do not endanger road safety nor encourage infringements. There appears to be little primary research data available on this but anecdotes suggest that several transport companies that paid drivers on a time and motion type of productivity scheme have withdrawn them due to concerns that they may have encouraged drivers to speed and drive more miles.

It is important to understand that variable elements are a key component of total remuneration especially in the EU-12, which may explain why certain surveys show such strong differences in level of wages between the EU-15 and EU-12. So for example "night-out" payments may be incorporated into total wages in certain companies but in others are still paid out of "petty cash".

There are a number of different driver wages/costs data sources available that have been utilised not only for the purposes of this Task A Report but also in Task B. For reference a list of sources of driver cost/wages is provided in Appendix 2.

¹²¹ Shortage of Qualified Personnel in Freight Transport, 2009, DG for Internal Policies, European Parliament

Driver wage data gathered by AECOM during this study through haulier interviews is displayed in Table 7.2. The AECOM study team were told during interviews that some Western European operators use the freedom of labour movement laws to employ Eastern European drivers, who have a lower salary demand¹²².

Country	Wage per Hour	Monthly Salary
Netherlands	€9.80-€12.50 ¹²³ to €24 ¹²⁴	€2,000 - €3,000 ¹²⁵
Spain	€5 - €10	€1,000 - €2,000 ¹²⁶
Italy	€11 - €12	~€2,250 ¹²⁷
France	€10 ¹²⁸	~€1,800 - €2,500
UK	€12	~£2,000 (€2,300) ¹²⁹
Germany	€10 - €12.50	€2,000 - €2,500 ¹³⁰
Poland	€4 - €5	€1,000 ¹³¹
Bulgaria	€5 - €6	€1,000-€1,200 ¹³²

Table 7.2 – Average Salary Values for Selected Member States¹³³

Table 7.2 shows that average monthly salaries still differ throughout the EU for HGV drivers and there is an East-West difference.

European Commission research found that before 2004 and accession of the new Member States, driver wages in the EU-15 were five times that of a new Member State¹³⁴. However, the European Commission research also found that driver wages in the EU-12 have increased as a result of driver shortages¹³⁵, which could be considered as a direct result of accession, but they are still lower than EU-15. Figure 7.2 shows the relative increase in EU-12 driver wages between 2004 and 2008, since then wages have grown at a similar rate to the EU-15.

¹²² Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

¹²³ International Road Freight Transport in France – Driver Cost Analysis, 2009, *Lumiere University*

¹²⁴ Interview, Dutch Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

¹²⁵ Interview, Dutch Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

¹²⁶ Bulletin on transport policies and strategies in Europe – Issue 22 Employment and Training, 2006, *CNT*

¹²⁷ Bulletin on transport policies and strategies in Europe – Issue 22 Employment and Training, 2006, *CNT*

¹²⁸ Interview, French Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

¹²⁹ Road Haulage Industry – Costs and Taxes, 2008, *House of Commons Library, UK*

¹³⁰ Road freight in Castile and Leon (El Transport de Mercanias por carretera en Castilla y Leon, 2008, *University of Leon*

¹³¹ Road freight in Castile and Leon (El Transport de Mercanias por carretera en Castilla y Leon, 2008, *University of Leon*

¹³² Interview with AEBTRI – Bulgarian Road Haulage Association, 2012, AECOM

¹³³ AECOM Consultation, 2011-2012

¹³⁴ The Impacts of the 2004 Enlargement in the Area of Transport, Sep 2007, *DG Tren, European Commission*

Strategic Plan of Action for Road Freight (Plan Estrategico de Actuacion para el Transporte de Mercanias por Carretera), 2008, *Ministry of Public Works of Spain*

¹³⁵ The Impacts of the 2004 Enlargement in the Area of Transport, Sep 2007, *DG Tren, European Commission*

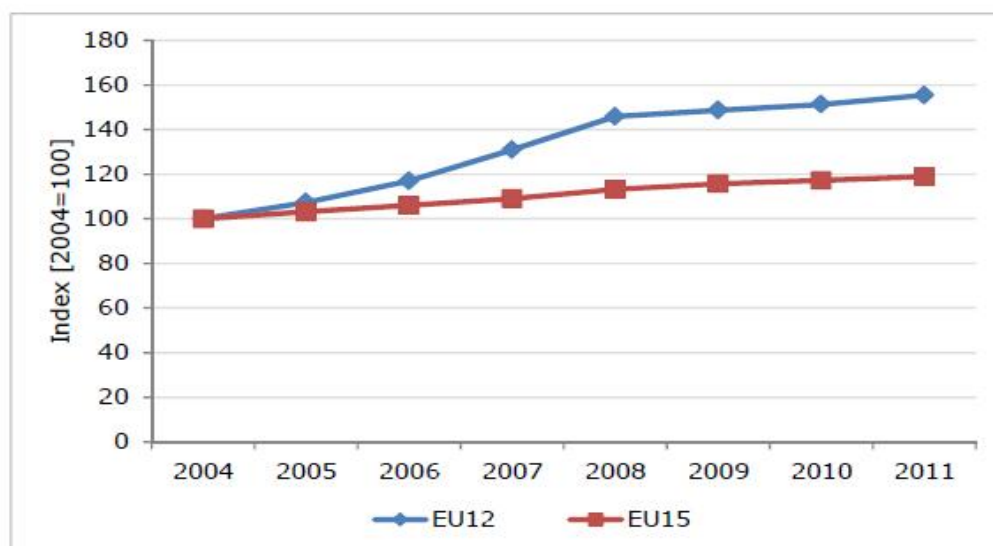


Figure 7.2 - Evolution of Driver Wages in EU-12 and EU-15 Since 2004¹³⁶

Government statistics reveal that in real terms the median annual earnings of a UK driver have increased by 10.5% between 2002 and 2007¹³⁷. Wages in Spain increased at an average rate of 4% per year between 2000 and 2008¹³⁸. Wage increases will put pressure on an operator's ability to turn a profit, unless costs are passed onto the client. Additionally, the fact that wages have increased over a long period of time suggests that the inclusion of new Member States has not caused a deflationary effect on average earnings.

When, in 2002 the European Conference of Ministers of Transport discussed road haulage, there was a feeling that lower salaries should lead to a decline in road haulage prices¹³⁹. However, it could equally be thought that declining road haulage prices, due to competition, could lead to a decline in salaries. The delegates at the Conference of Ministers of Transport were also concerned that the road haulage sector would be devastated by further declines in salary¹⁴⁰ as skilled drivers would feel less inclined to stay in an industry where salaries are falling. Research conducted by Lumiere University found that even within the same country, wages can differ. In Germany, there is a salary differential between the East and West. This is because East German driver's wages are pressured by Eastern European competition such as that from Poland¹⁴¹. Furthermore, the researchers found that Germany has actually experienced wage deflation in the road haulage sector, the only EU country to do so¹⁴². The European Commission analysis of the impact of Oil Prices found that labour costs can differ more between countries than fuel costs¹⁴³, especially as labour can be a larger proportion.

¹³⁶ Development and Implementation of EU Road Cabotage, March 2013, *European Parliament*

¹³⁷ Road Haulage Industry – Costs & Taxes, 2008, *House of Commons Library*

¹³⁸ Observatory of Road Freight Costs (Observatorio de Costes del Transport de Mercancias por Carretera), 2010, *Ministry of Public Works Spain*

¹³⁹ Social Dumping in the ECMT Area – Road Haulage Case, 2002, *European Conference of Ministers of Transport*

¹⁴⁰ Social Dumping in the ECMT Area – Road Haulage Case, 2002, *European Conference of Ministers of Transport*

¹⁴¹ International Road Freight Transport in France – Driver Cost Analysis, 2008, *Lumiere University*

¹⁴² International Road Freight Transport in France – Driver Cost Analysis, 2008, *Lumiere University*

¹⁴³ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

The salary value will be linked to how skilled the job is. During the interviews conducted by the AECOM study team a Dutch haulier stated that the more skills required, the higher the salary rate that is paid¹⁴⁴. For example, in the Netherlands, it is known that a typical wage might be €9.80-€12.50 per hour however a Dutch driver that has completed ADR training (Accord Dangereuse Routiers - for hazardous goods, such as chemicals) can receive up to €25 per hour¹⁴⁵. A survey conducted by FORBA (Forschungs- und Beratungsstelle Arbeitswelt) in 2003 found that the majority of drivers in Austria are paid performance based wages and bonuses¹⁴⁶. Indeed, other countries, such as Portugal, pay their drivers according to performance, such as distance travelled. This can put drivers in a position of a conflict of interest with the Working Time Directive. Bonuses paid according to distance travelled can be contrary to the provision of Regulation (EC) No 561/2006¹⁴⁷ if they are of a nature to endanger road safety.

There are drivers in some countries that receive benefits of being paid for additional months, so called 13 month salaries. This can range between 13 months in France¹⁴⁸ to 15 months in Spain. This could be considered to be a bonus.

Some countries still have some form of National Joint Council that review changes in the economy, trading conditions and cost of living increases and then advise on pay. This tends to keep salaries broadly in-line between companies. It can mean that where the Unions are particularly active, then the overall driver package is better. The study team's understanding is that there are several countries that retain this type of system including, Netherlands, France, Portugal, Denmark and is only partially used now in Germany.

Collective labour conventions have traditionally been part of the EU road haulage industry, however in Germany more and more workers are not being integrated into these conventions¹⁴⁹. This is considered as 'competitive disinflation'. Conventions still play a role in minimum wage standards in several countries including the Netherlands and France¹⁵⁰.

CASE STUDY – Collective Wage Convention in Portugal, AECOM Interview with ANTRAM

Portugal has a Collective Wage Convention for its drivers. One such convention was negotiated by ANTRAM, a haulage association and was set in 2007. It stipulates that drivers must be paid a minimum:

- €445 per month as a base salary
- €120 per month based on distance travelled
- €320 per month for supplementary costs such as night time driving

Social standards and protection in some Member States can increase labour costs and provide a competitive advantage to hauliers from Member States that don't have the same standards¹⁵¹. Social taxes can even vary within a Member State. This is mainly a difference between whether a driver is a direct employee of a haulage company or an indirect employee, such as being self-employed. In Poland, an indirect employee's social insurance premiums are 860 PLN per month which is lower than the 1,325 PLN per month for a driver being paid 3,500 PLN per month¹⁵². This is a significant difference. This suggests that there

¹⁴⁴ Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

¹⁴⁵ Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

¹⁴⁶ Branch Survey on Working Conditions in Freight Road Transport for Austria, 2003, FORBA

¹⁴⁷ Regulation (EC) No 561/2006 of the Parliament and of the Council of 15 March 2006 - on the harmonisation of certain social legislation relating to road transport and amending Council Regulations (EEC) No 3821/85 and (EC) No 2135/98 and repealing Council Regulation (EEC) No 3820/85, OJ L 102, 11.4.2006, p. 1-14

¹⁴⁸ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

¹⁴⁹ International Road Freight Transport in France – Driver Cost Analysis, 2008, Lumiere University

¹⁵⁰ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

¹⁵¹ Social Dumping, 2010, Eurofound, European Commission

¹⁵² Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

may be indirect social security costs that affect the market in a far more complex manner. Although systems may have been established for staff welfare, some companies are choosing to ignore the spirit of the law and by keeping contributions artificially low to the state welfare fund then this can give unfair advantage. The whole issue surrounding social security contributions falls outside of the scope of transport legislation and although briefly discussed here it is more for information.

The study team's understanding of the situation in Poland is that there are two different codes of practice by which you calculate social service payments, the labour code and the commercial code. A number of companies seek to pay the minimum possible and this seems to be acceptable practice in certain firms but one of the problems this is causing is that pension contributions are running at a serious deficit nationally.

Employing sole traders has been a way of getting around a labour code which is quite restrictive and it is more convenient to work under the commercial code instead as less charges are incurred and hence it is cheaper for the business.

Currently social insurance premiums for a sole trader are based on a declaration by the sole trader. This is used to work out monthly payments which are compulsory. The tendency is to declare at the lowest possible amounts so that monthly premiums are low. The lowest rate you could declare at the time of the primary research was a premium of 860 PLN/month which was below what an employer would have to pay for his regular drivers. It is likely that a company paying 3,500 PLN/month would have to pay 1,235/month (35%) and not 860. When you are a sole trader there is no such thing as a minimum wage.

Social insurance premiums in theory cover public healthcare and pensions. If you are a sole trader then there is no provision to a holiday fund. You can claim a small benefit if you get sick paid (ZUS) by the social insurance fund. Sole traders are not setting down money for a pension unless they do it privately.

An additional point should be made about the employment status of drivers. In Austria, the insurance of employed drivers by a haulier is mandatory but not for self employed drivers hence there is a lower cost involved in using self employed drivers¹⁵³. Issues concerning self-employment are further explored in Chapters 8.7 of this report.

7.3.2 Fuel – 26% to 38% of costs

Research conducted by Heriot Watt University found that fuel typically accounts for between a quarter and a third of total vehicle operating costs in the EU¹⁵⁴. This is confirmed by some operators¹⁵⁵ interviewed by the AECOM study team.

Forecourt fuel prices are directly influenced by varying crude oil prices, which can be up to 40% of the forecourt price¹⁵⁶. Direct taxation of fuel tends to be fixed for set periods by Member States so international markets are more likely to affect whether the forecourt price increases or decreases. Crude prices¹⁵⁷, and consequently diesel prices have fluctuated quite a bit over the previous years and the value is likely to increase¹⁵⁸ in time. In Spain, fuel has increased as a cost by 5% between 2000 and 2007¹⁵⁹. In the UK for 2010, fuel costs increased by 14.9%¹⁶⁰. Fuel, along with labour, is the main cost item for road freight transport¹⁶¹. Not every operator makes provision to recover changes in fuel prices. A survey found that an average of only 27% of fuel price increase was recovered by operators¹⁶². The ability to recover fuel price increases appears to be linked to the size of

¹⁵³ Branch Survey on Working Conditions in Freight Road Transport for Austria, 2003, *FORBA*

¹⁵⁴ Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

¹⁵⁵ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁵⁶ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

¹⁵⁷ European Fuel Prices and Freight Rate Quotes, 2011, *Freight Ex*

¹⁵⁸ European Fuel Prices and Freight Rate Quotes, 2011, *Freight Ex*

¹⁵⁹ Current Situation of the Transport Sector (Situacion Actual del Segmento Transporte), 2008, *GAIA*

¹⁶⁰ The Logistics Report 2011, 2011, *Freight Transport Association*

¹⁶¹ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

¹⁶² Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

the operator. Large operators are almost twice as likely to be able to recover fuel cost increases than smaller operators¹⁶³. There is a commonly held view amongst shippers that hauliers should not be compensated in full for fuel price increases as it would remove the incentive to improve fuel efficiency¹⁶⁴. Taxation of fuel can also have a compounded effect on the final true cost of goods. For example, a €0.01 per litre increase in fuel duty can end up costing the end consumer €0.02 per litre extra as the cost to deliver goods to a retailer increases by €0.01 per litre and the cost for the consumer to reach the retailer increases by €0.01 per litre.

Fuel costs can differ from one country to the other within the EU. A substantial influencing element of these differences is caused by the differences in fuel related taxes that are levied in the individual country¹⁶⁵. Some Member States have crude refining capacity which can help them to have greater control over the cost of their fuel. Fuel costs and the duty excised on diesel are the major cost issues for fleet managers who have to budget for their fuelling costs¹⁶⁶. The European average for fuel duty is 25p per litre yet in the UK it is 50p per litre¹⁶⁷. This clear difference in price can cause competitive disadvantage and a freight vehicle filled up outside the UK will enjoy a cost advantage of 10-15% over its UK rival¹⁶⁸. The effect this has is that for international freight movements having a destination in the UK will have been powered by fuel purchased outside the country¹⁶⁹. This is achieved by accommodating additional fuel tanks on the vehicle which are associated with long distance running. Fuel duty is not charged on fuel in these tanks¹⁷⁰; hence the low value is maintained. In Portugal, fuel is more expensive than neighbouring Spain so some companies will fuel there¹⁷¹. This also occurs in Ireland¹⁷². The consequence of this is that filling stations near the border in Portugal are closing down. Fuel costs can even differ within a country; this is the case in Poland¹⁷³. It is clearly the case that fuel prices are not harmonised throughout the EU and despite the EU looking at harmonising the duty levied on fuel¹⁷⁴.

Member State	Diesel Price (€/litre)
Austria	1.386
Belgium	1.438
Bulgaria	1.340
Cyprus	1.433
Czech Republic	1.404
Denmark	1.448
Estonia	1.361
Finland	1.571
France	1.387
Germany	1.440

¹⁶³ Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

¹⁶⁴ Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

¹⁶⁵ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

¹⁶⁶ Modelling Vehicle Utilisation, Operating Costs and Efficiency of the Logistics Services Sector, 2003, *Association for European Transport*

¹⁶⁷ Road Haulage Industry – Costs & Taxes, 2008, *House of Commons Library*

¹⁶⁸ Transport Committee Comments on Taxes and Charges on Road Users, 2009, *UK Parliament*

¹⁶⁹ Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

¹⁷⁰ France General Freight Transport Information, 2011, *Croner*

¹⁷¹ Interview, Portuguese Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁷² Freight Transport Report for the Island of Ireland, *Inter Trade Ireland*

¹⁷³ Interview, Polish Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁷⁴ Increasing Fuel Prices and Market Distortion in the Domestic Road Haulage Market – UK, 2007, *Heriot Watt University*

Member State	Diesel Price (€/litre)
Greece	1.414
Hungary	1.469
Ireland	1.547
Italy	1.667
Latvia	1.329
Lithuania	1.353
Luxembourg	1.244
Malta	1.400
Netherlands	1.440
Poland	1.345
Portugal	1.411
Romania	1.330
Slovakia	1.414
Slovenia	1.381
Spain	1.374
Sweden	1.690
United Kingdom	1.682
EU-27	1.468

Table 7.3 – Typical Diesel Price in Euro per Litre for Each Member State (April-2013)¹⁷⁵

Table 7.3 shows the typical diesel pump price for each Member State. Sweden has the highest diesel price at €1.690 per litre and the cheapest diesel price is Luxembourg at €1.244 per litre.

¹⁷⁵ Market Observatory Oil Bulletin, 2013, European Commission http://ec.europa.eu/energy/observatory/oil/bulletin_en.htm

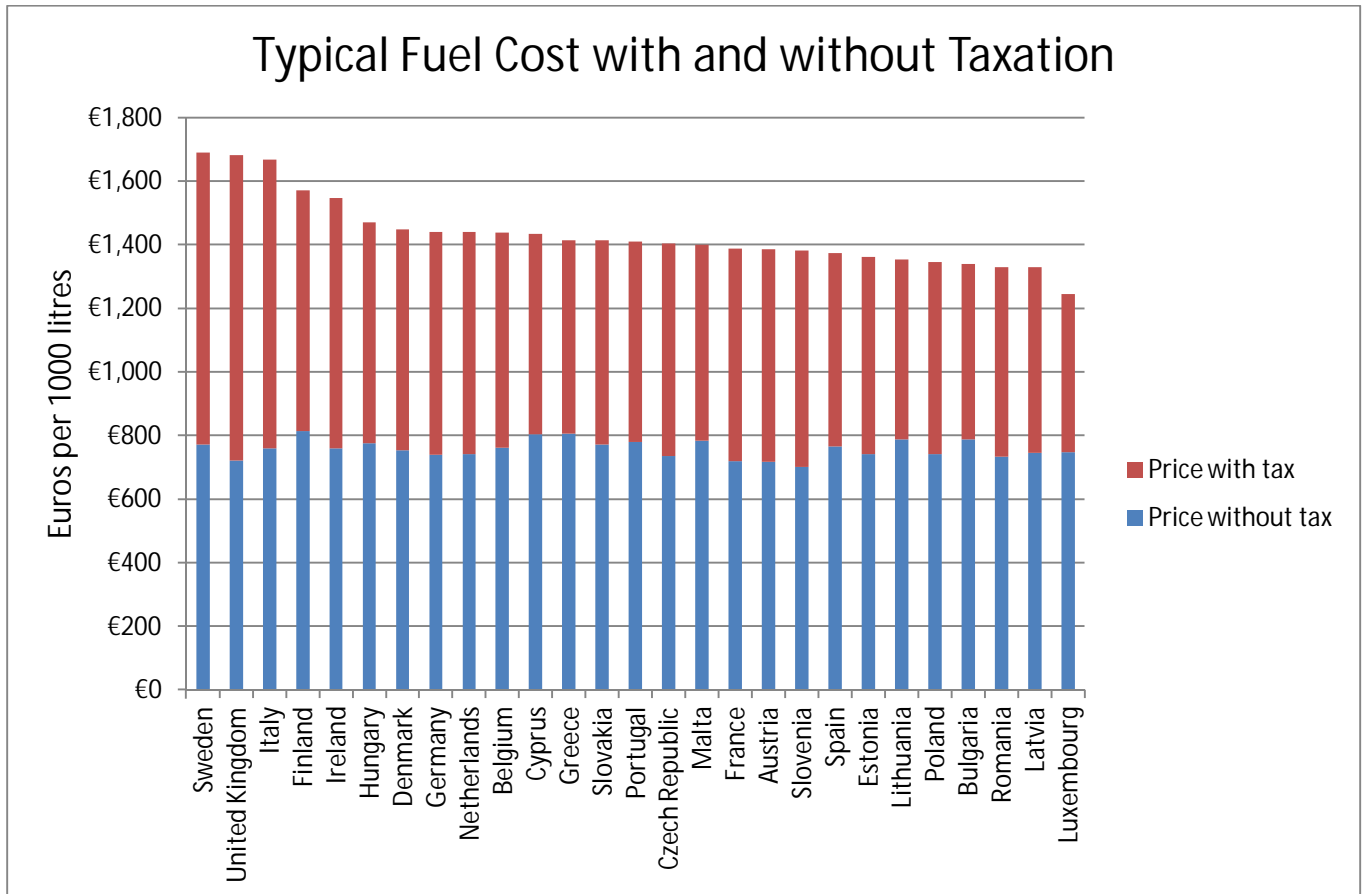


Figure 7.3 – Typical Diesel Fuel Cost per 1000 Litres for Member States (April, 2013)¹⁷⁶

Figure 7.3 shows the cost of fuel per 1,000 litres. It can be seen that the final price of diesel can range from €1,244 in Luxembourg (the lowest) to €1,690 in Sweden (the highest). The EU average is €1,468. So Luxembourg is 16% cheaper than the average, yet Sweden is 15% higher.

Removing fuel duty and tax from the final price changes the picture somewhat. The UK is no longer the most expensive, the most expensive being Finland at €814. The cheapest is no longer Luxembourg, it now being Austria at €717. The EU average cost of 1,000 litres of diesel without taxation is €745. So Austria is 4% cheaper than the average, and Finland is 9% higher. Diesel price without taxation has a clearly smaller range, +9%/-4% (13%) than the diesel price with taxation, +15%/-16% (31%). This shows that, generally, tax has the largest influence on the forecourt price of fuel cost.

¹⁷⁶ Market Observatory Oil Bulletin, 2013, European Commission http://ec.europa.eu/energy/observatory/oil/bulletin_en.htm

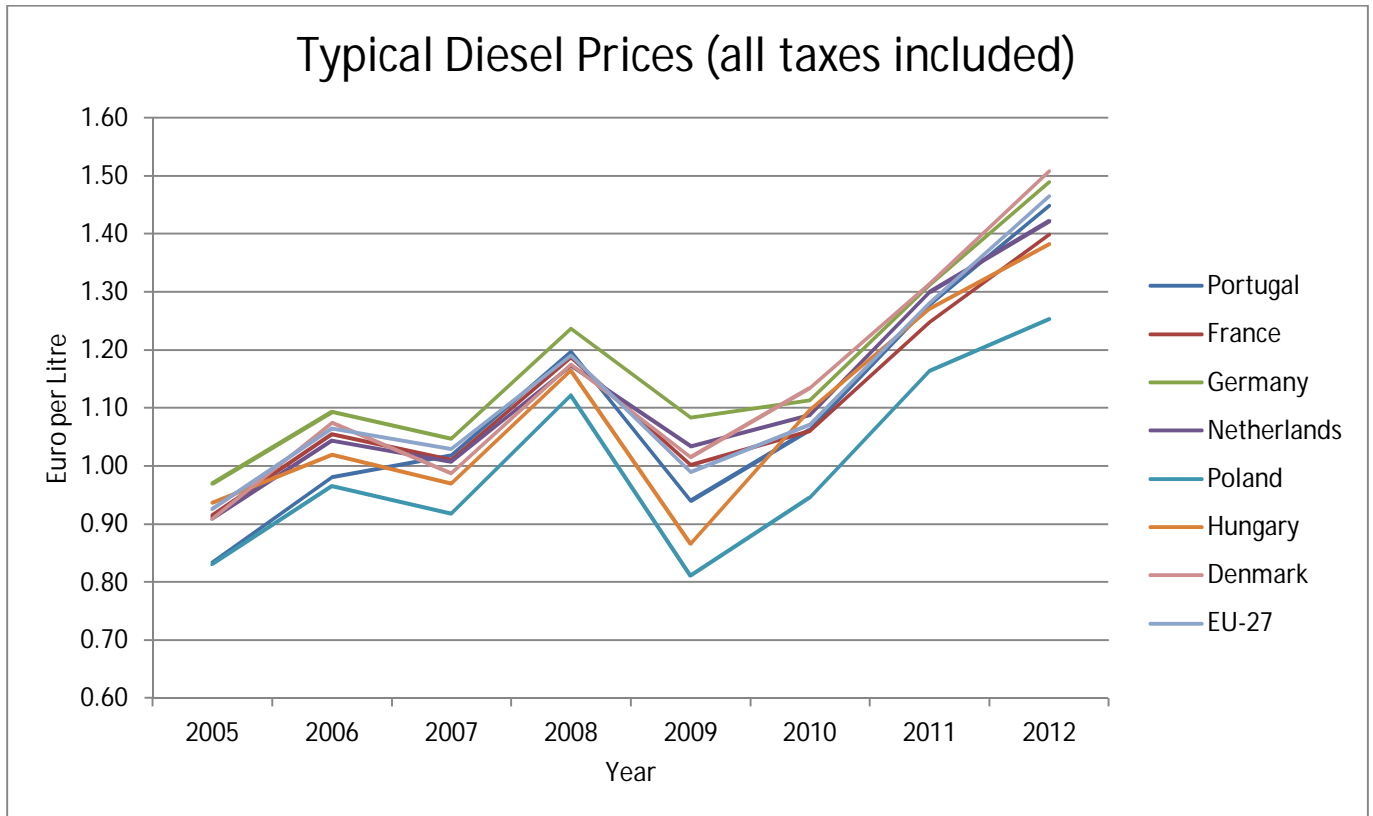


Figure 7.4 – Typical Diesel Prices 2005 – 2012 for Selected Member States¹⁷⁷

Figure 7.4 shows that diesel prices have followed a similar trend for all of the selected Member States. There has been a general trend of increasing diesel prices. The impact of the economic crisis can be observed in 2009 with a sudden drop and high volatility.

In Eastern European countries, where labour is a lower cost, fuel costs have a larger share in overall operating costs¹⁷⁸. The fuel costs can still be lower than those in Western Europe though.

7.3.3 Taxation – 1% to 10% of costs

This section considers the direct taxation of a road haulage operation. Taxes on fuel or linked to salaries are covered in the previous sections. Direct taxation on a truck's operation amounts to just a small percentage of the total cost¹⁷⁹.

At best, HGVs cover 61% of their total costs (internal and external) - a shortfall of £3.35 billion a year¹⁸⁰. If the congestion cost of a HGV is excluded, some evidence suggests that HGVs more than cover their infrastructural and environmental costs¹⁸¹.

¹⁷⁷ Diesel Prices, 2005-2012, Eurostat http://ec.europa.eu/energy/publications/statistics/statistics_en.htm

¹⁷⁸ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, DG Tren, European Commission

¹⁷⁹ SOFTICE – Survey on Freight Transport Costs in Europe (inc. Poland), 2001, University of Rome

¹⁸⁰ Transport Committee Comments on Taxes and Charges on Road Users, 2009, UK Parliament

¹⁸¹ Introduction of Environmental Cost Calculations in the Planning and Tracing of Companies' Freight Transport, 2009, Chalmers University Gothenburg

The level of excise duty on fuel varies between countries from 55% in Austria to 76% in the UK at an average value of 62%¹⁸². Despite there being some extremes, there is considered to be a trend towards convergence in the level of fuel duty¹⁸³. This is supported by one company interviewed by AECOM¹⁸⁴. When delivering to countries with high fuel duty, there is a possibility and practice by hauliers to refuel in other Member States with lower rates.¹⁸⁵ This is an important factor in contributing to a level-playing field for hauliers if there is easy access to fuel at different prices. Fuel duty is not chargeable on fuel that is carried in a HGV's normal tanks¹⁸⁶.

The total tax costs in the form of indirect and direct taxes can vary substantially from one Member State to the next. Liberalisation of the road haulage market has not been accompanied by a tax reform in Member States that means hauliers are all paying similar tax values¹⁸⁷. The lowest values of these taxes are found in Denmark and Belgium at only 10.7% and 11.3% of total operating costs. The highest tax to operating cost ratio can be found in Italy, UK and Spain which are 24.7%, 24.5% and 24.4% respectively¹⁸⁸. The average social tax for a driver in France is 36% but it is 23% in Germany¹⁸⁹. Social charges on driver wages in Bulgaria are 27.4%¹⁹⁰.

Country	Vehicle Tax
Germany	€1,000 ¹⁹¹
Poland	€600 ¹⁹²
Portugal	€500 ¹⁹³
Spain	€800 ¹⁹⁴
Hungary	€750 ¹⁹⁵

Table 7.4 – Road Fund Licensing Tax or Equivalent¹⁹⁶

Table 7.5 shows that there is a range in the vehicle excise duty (or national equivalent) that is levied on a vehicle by Member States. A result of differing levels of vehicle taxation is that some hauliers are flagging out to other countries where Vehicle Excise Duty is at a lower rate¹⁹⁷.

'Flagging out' means establishing and licensing vehicles in a country different to the 'home' country of the vehicle operator. Some companies will 'flag out' in order to avoid paying higher taxes in one country or to benefit from lower taxes in another country. It has become particularly attractive for medium and large companies and can be reasonably performed by companies with a fleet of more than 20 vehicles. For smaller companies the related costs for founding and maintaining a subsidiary abroad would typically exceed the attainable cost savings.

¹⁸² SOFTICE – Survey on Freight Transport Costs in Europe (inc. Poland), 2001, *University of Rome*

¹⁸³ SOFTICE – Survey on Freight Transport Costs in Europe (inc. Poland), 2001, *University of Rome*

¹⁸⁴ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁸⁵ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁸⁶ Portugal General Freight Transport Information, 2011, *Croner*

¹⁸⁷ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

¹⁸⁸ SOFTICE – Survey on Freight Transport Costs in Europe (inc. Poland), 2001, *University of Rome*

¹⁸⁹ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹⁰ Interview, Bulgarian Trade Association, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹¹ Interview, German Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹² Interview, Polish Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹³ Interview, Portuguese Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹⁴ Interview, Portuguese Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹⁵ Interview, Hungarian Haulier, 2012, *AECOM* (Opinion of haulier/company, different opinions may exist)

¹⁹⁶ AECOM Consultation, 2011-2012

¹⁹⁷ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

The benefits of flagging out, depending on country, can include paying less corporation tax and dividend tax, not paying any road tax (unless you are driving in the country your vehicles are registered in), cheaper insurance and cheaper maintenance and MOT tests. Arrangement for access to the profession of road haulage and operator licensing standards may also be different.

Flagging out can lead to high losses of tax income in the original country¹⁹⁸. The table below gives an idea of the differing level of taxation HGVs in different Member States might experience. For large fleets, the difference in taxation levels might provide an economic incentive to flag out.

Member State	Excise Duty (Euro per 1000l)	Cost (Euro per 1000l)	VAT Rate	Cost (Euro per 1000l excluding VAT)	Excise Duty As a % of Overall Price	Excise Duty As a % of Overall Price Excluding VAT	Value of all Tax Levied on Diesel (Euro per 1000l)	All Tax Levied as a % of Overall Price
Belgium	€ 433	€ 1,425	21%	€ 1,177	30%	37%	€ 680	48%
Bulgaria	€ 314	€ 1,240	20%	€ 1,033	25%	30%	€ 521	42%
Czech Republic	€ 448	€ 1,457	20%	€ 1,214	31%	37%	€ 691	47%
Denmark	€ 393	€ 1,465	25%	€ 1,172	27%	34%	€ 686	47%
Germany	€ 470	€ 1,443	19%	€ 1,213	33%	39%	€ 701	49%
Estonia	€ 393	€ 1,406	20%	€ 1,172	28%	34%	€ 627	45%
Ireland	€ 466	€ 1,479	23%	€ 1,203	31%	39%	€ 742	50%
Greece	€ 412	€ 1,545	23%	€ 1,256	27%	33%	€ 701	45%
Spain	€ 331	€ 1,322	18%	€ 1,120	25%	30%	€ 533	40%
France	€ 428	€ 1,397	20%	€ 1,168	31%	37%	€ 657	47%
Italy	€ 472	€ 1,685	21%	€ 1,393	28%	34%	€ 765	45%
Latvia	€ 330	€ 1,366	22%	€ 1,120	24%	29%	€ 576	42%
Cyprus	€ 330	€ 1,318	15%	€ 1,146	25%	29%	€ 502	38%
Lithuania	€ 302	€ 1,326	21%	€ 1,096	23%	28%	€ 532	40%
Luxembourg	€ 320	€ 1,234	15%	€ 1,073	26%	30%	€ 481	39%
Hungary	€ 355	€ 1,509	27%	€ 1,189	24%	30%	€ 676	45%
Malta	€ 382	€ 1,340	18%	€ 1,136	29%	34%	€ 587	44%
Netherlands	€ 434	€ 1,415	19%	€ 1,189	31%	37%	€ 660	47%
Austria	€ 425	€ 1,388	20%	€ 1,157	31%	37%	€ 656	47%
Poland	€ 327	€ 1,348	23%	€ 1,096	24%	30%	€ 579	43%
Portugal	€ 364	€ 1,439	23%	€ 1,170	25%	31%	€ 633	44%
Romania	€ 303	€ 1,322	24%	€ 1,066	23%	28%	€ 558	42%
Slovenia	€ 351	€ 1,324	20%	€ 1,103	27%	32%	€ 572	43%
Slovakia	€ 368	€ 1,429	20%	€ 1,191	26%	31%	€ 606	42%
Finland	€ 364	€ 1,563	23%	€ 1,271	23%	29%	€ 656	42%
Sweden	€ 536	€ 1,594	25%	€ 1,276	34%	42%	€ 855	54%
United Kingdom	€ 668	€ 1,704	20%	€ 1,420	39%	47%	€ 952	56%

¹⁹⁸ Flagging Out as a Popular Strategy of Road Freight Transport Companies, 2010, *Association for European Transport*

Table 7.5 – Taxation Rates on Diesel for Member States¹⁹⁹

Table 7.5 shows that the VAT rate is not currently harmonised between the Member States. Whilst it is unlikely that it would be harmonised in the near future, it could have an effect on where road hauliers choose to locate themselves. VAT is charged on goods and services; however hauliers can claim much of their VAT back as business expenses. The value of the VAT paid and the rate at which hauliers are able to reclaim these monies could affect business decisions, such as location, particularly where VAT rates differ and large sums of money are involved. For example, Portugal has a VAT rate of 23% compared to Spain's VAT rate of 18%. This 5 percentage point difference may compel a Portuguese haulier to flag out to Spain, although evidence of this occurring solely for this reason is impossible to verify.

CASE STUDY – Portuguese Hauliers Buy Fuel in Spain, AECOM Haulier Interview

A Portuguese haulier consulted confirmed that their operation bought 80% of its fuel in Spain. In Portugal, fuel on average costs their operation €1.043 per litre whereas in Spain the fuel, on average, costs €1.004 per litre. This €0.04 per litre difference can add up to a substantial saving for the many millions of litres of fuel an operation will use over the course of a year. Other hauliers and ANTRAM, the haulage association confirmed that this was typical behaviour.

By quick comparison, 1000 litres of diesel bought in Portugal (excluding VAT) will cost €1,170, whereas 1,000 litres bought in Spain will cost €1,120 as shown in Table 7.5.

Equally so, the Excise Duty levied on diesel is not harmonised between Member States. This is set at a value per 1,000 litres (as opposed to a percentage as it is for VAT). The most expensive Member State for Excise Duty is the UK, at €668 per 1,000 litres. This represents 39% of the final pump price or 47% of the fuel price to a haulier if VAT is reclaimed. Lithuania has the lowest level of Excise Duty of all the Member States at €302 per 1,000 litres. This is 23% of the final pump price or 28% of the value if VAT is reclaimed. So the range of fuel duty is from €302 to €668 per 1,000 litres, which is €366. VAT is normally reclaimed as part of fuel costs by a haulier. If VAT is discounted for final comparisons, the Member State with the lowest proportion of Excise Duty for diesel is Lithuania at 28% (rounded from 27.6%) and the Member State with the highest proportion of Excise Duty for diesel is the United Kingdom at 47% (rounded from 47.0%). Differing Excise Duty rates are a key contributor to the differing prices for diesel between the Member States and helps to explain haulier behaviour with regards to fuel price (see earlier section).

¹⁹⁹ Excise Duties, 2011, *DG Tax UD*

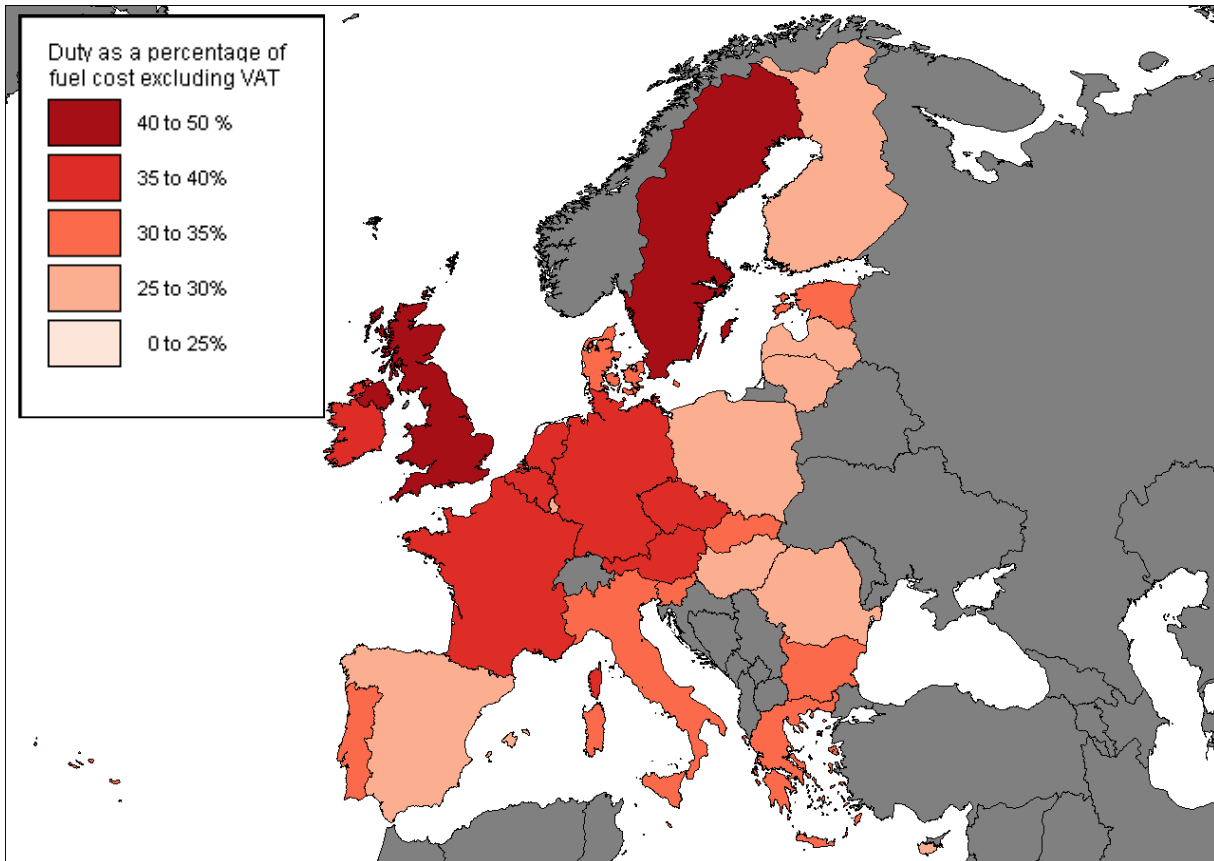


Figure 7.5 – Fuel Duty as a Percentage of Fuel Cost (excluding VAT) throughout Europe²⁰⁰

7.3.4 Other Costs

Other costs experienced by a road haulier include vehicle and goods in transit insurance, maintenance, tyres and financing. These can make up a substantial part of the overall cost.

The value of the load can have a direct effect on the decision of the haulier whether they can transport the load. Some loads may be too valuable for the haulier to afford to insure so in that case, the haulier refuses the load as the risks of movement are too high²⁰¹.

In Germany financing and leasing rates are about 12%²⁰². Haulier interviews conducted by the AECOM study team revealed that owner drivers in Germany struggle to get financing for their vehicles. Statistics for the number of self-employed drivers in Germany have not been published by Eurostat. However, with an average enterprise size of 9.12 employees Germany ranks fifth in the EU in terms of average enterprise size, this is a significantly larger than in Poland and Italy where the average enterprise size is less than 3 employees²⁰³. Interviews conducted in Portugal found that hauliers felt that the banks consider the haulage industry as a high risk industry to lend money to so hauliers are struggling to secure finance for new vehicles. In some cases,

²⁰⁰ Cartographical Representation of Table 7.5

²⁰¹ Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰² Six Years of Road Freight Growth Lost to the Crisis, 2011, Eurostat

²⁰³ Eurostat: [sbs_na_1a_se_r2], 2012, Eurostat

they are being refused credit. This has been exacerbated by the financial crisis which has made raising finance even more difficult. The cost of new vehicles and spare parts are fairly similar across the whole of Europe, the only significant difference in price being the price of fitters for maintenance.²⁰⁴

7.4 Cost Effects of Profitability and Competition

Up to date official data on haulage rates and typical costs to consign freight by road is not widely available and this information tends to be commercially confidential. Information gathered as part of the AECOM haulier interview process does however provide some insight into the level and range of haulage rates that currently prevail in the market. Hauliers from the Czech Republic and Poland typically charge around €1.15 per km whereas German hauliers charge €1.50 per km²⁰⁵. This fluctuation in rates can make some Member States' markets appear more attractive. One Polish haulier interviewed mentioned that they can get good rates in Germany, the UK, the Netherlands and Belgium²⁰⁶. These values suggest that a haulier in Poland charging a rate of €1.15 per km and experiencing an operating cost of €0.43 per km might be able to make a profit of €0.72 per km (63%). Equally, a haulier in Germany charging a rate of €1.50 per km and experiencing an operating cost of €1.10 per km might be able to make a profit of €0.40 per km (27%). However it should be noted that the operating costs are from 2005.

The length of the contract chain also affects the level of rates a haulier can get. If the haulier deals directly with the shipper then they can get 15%-20% higher rates²⁰⁷ compared to if they receive the work from a freight forwarder.

Rates will also vary on whether the work is domestic or international. One haulier in Portugal charged €1.00 per km for domestic haulage²⁰⁸ and €0.85 per km for international haulage²⁰⁹. The rate is cheaper for the international work as the company would nearly always secure a return load whereas domestic work nearly always returned empty²¹⁰. This backload work allows a haulier to reduce the rates even further²¹¹.

The German trade association BME publish an annual survey of road haulage rates; Figure 7.6 below shows the average price per km for different distance classes. This shows that short distance journeys are considerably more expensive per km compared to longer journeys; this is likely due to high fixed costs. The price per km for journeys less than 200km is €2.93 per km; journeys between 201 and 300 km cost €1.84 per km. The price then gradually declines with increasing distance.

²⁰⁴ Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰⁵ Key Points from the German Haulage Interviews, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰⁶ Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰⁷ Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰⁸ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁰⁹ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²¹⁰ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²¹¹ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

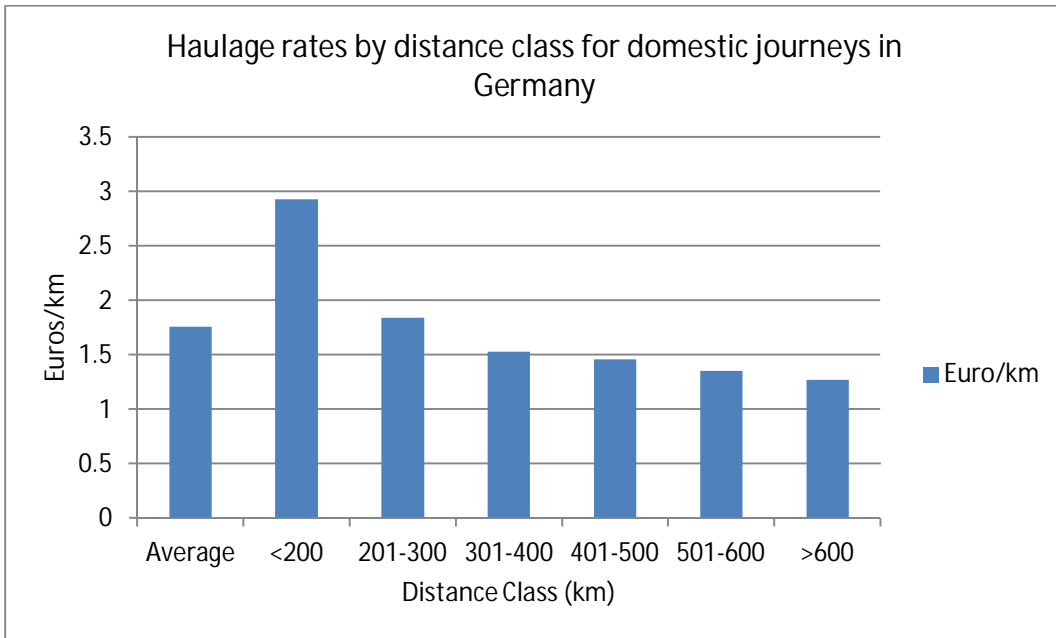


Figure 7.6 – Average Freight Rates in German Domestic Road Freight Transport in the First Quarter 2012 for Six Distance Classes²¹²

As a further element of the study research AECOM contacted a freight forwarding agency and asked for quotations on a number of domestic and international routes between German, Polish and Danish cities. The results are shown in Table 7.7. The rate per km is generally between €1.50 and €1.60 with the international routes being slightly cheaper than domestic routes.

²¹² Preisspiegel Frachten, Stassenguterverkehr national und international 2012, BME

A	B	Rate - Euros	Distance - km	Euros per km
Berlin	Nuremberg	700	439	1.59
Berlin	Bremen	625	395	1.58
Hamburg	Cologne	650	425	1.53
Hanover	Nuremberg	725	464	1.56
Munich	Frankfurt	620	392	1.58
Dresden	Poznan	600	405	1.48
Dresden	Krakow	800	522	1.53
Berlin	Gdansk	750	490	1.53
Bremen	Copenhagen	675	449	1.50
Hamburg	Aalborg	700	447	1.57
Average Domestic				1.57
Average International				1.52

Table 7.6 – International and Domestic Road Haulage Rates

Source: *Haulier quote, 2013*

There are high fixed costs for road haulage, such as the cost of the vehicle and establishing an operation. For short journeys a vehicle will spend a higher percentage of time loading, waiting, or in the case of urban deliveries, in traffic. Therefore, it is logical that shorter journeys are more expensive in per km terms. Generally international journeys are longer than domestic journeys so it follows that on average domestic haulage will be more expensive than international haulage.

It is also true that international haulage is more open to competition as bilateral and third country haulage is fully liberalised. Hauliers from countries with high labour costs are at a competitive disadvantage in this market, thus over the equivalent distance one would expect international haulage to be cheaper than domestic haulage in Germany.

Rates for international movements have an additional layer of sensitivity due to variable exchange rates²¹³. This is still the case where trade is with at least one Member State that hasn't joined the single currency.

Increased costs have a direct effect on the profitability of the sector. Rising fuel costs, that are not always possible to pass on to the customer, will affect profitability²¹⁴. Road haulage rates in the UK have increased by just 3.6% which was below the standard rate of inflation²¹⁵, which could be an indication of high competition. The costs of road transport in Spain have decreased by 36% between 1995 and 2005²¹⁶. Freight rates are too low, mainly because companies are not calculating their costs correctly by taking into account all costs experienced by the company²¹⁷.

The road freight transport sector has low margins²¹⁸. Margins for a haulage or forwarding company are typically between 0% and 10%²¹⁹. This is symptomatic throughout Europe on both domestic and international transport. Margins are consistently eroded by increases in fuel costs and wages. One interviewed haulier mentioned that their profit margin can range from -2% to +2%²²⁰.

²¹³ Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²¹⁴ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

²¹⁵ The Logistics Report 2011, 2011, *Freight Transport Association*

²¹⁶ Freight Prices by Modes (Precios del Transporte de Mercancías por Modos), 2007, *Observatory for Sustainability*

²¹⁷ Trade Between the EU25 and Neighbouring Countries by Mode of Transport, 2006, *Eurostat*

²¹⁸ Economic and Financial Characteristics of the French Road Transport Fleet, 2011, *Banque de France*

²¹⁹ High Prices in Sweden – A Result of Poor Competition?, 2003, *Swedish Institute for Transport and Communication Analysis*

²²⁰ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

Another haulier said their profit margin is 2.5%-3%²²¹. These low margins gives an indication of how fiercely competitive the road haulage industry is. The high competition in the industry means that undercutting of rates is common, which in turn affects margins. Some companies no longer compete in certain markets due to unprofitability²²². Operators are considered to be price takers rather than price makers²²³. The profitability of both domestic and international road freight transport has decreased continuously. Low profit levels are being experienced by Dutch, French, Spanish and UK hauliers²²⁴.

It appears that many French hauliers are now in debt due to competition and a third of them face strong difficulties in honouring their debts²²⁵. Cost disparities between Member States foster competition which can also drive down prices²²⁶.

A response to cost pressure by some hauliers in Ireland has been to cut corners in many areas of legal compliance related to vehicle roadworthiness, overloading, driving hours and so forth²²⁷. This can have obvious safety implications.

Even though driver wages in the Netherlands and Germany can be up to 50% higher than their French counterparts, there are other ways in which they can achieve competitive advantage. This can be done through quality of service, specialisation or increasing their productivity by making themselves available to work more hours²²⁸.

Considering that more often than not a haulier must take a price dictated by a customer, and that margins can be very low, hauliers will look to reduce costs in order to improve margins. However, a German haulier interviewed by the study team reported that instead of using cheaper foreign labour to undercut competitors, hauliers use the reduced cost to improve their profit margins²²⁹.

7.5 Concluding Remarks

Hauliers face many costs as a result of their operation, with drivers and fuel being the two largest expenses. Both fuel and driver costs can vary throughout the Member States and can often vary significantly enough to compel hauliers to flag out from their original base in one Member State to a cheaper Member State. The ability of a haulier to be able to take advantage of a lower cost base country for the registration of their fleet is a major factor influencing their ability to compete effectively in their chosen markets. However, taking advantage of sometimes difficult to enforce areas of Community legislation, such as minimum wage rates can be seen as unfairly exploiting legal loopholes and can distort both domestic and international haulage markets.

It should be noted that Member States that have higher fuel costs tend to have higher driver wages. For example Denmark has higher than average driver wages as well as higher than average fuel costs. Conversely, Poland has lower than average driver wages and also lower than average fuel costs. By way of comparison, Denmark has a higher than average GDP (Gross Domestic Product) whereas Poland has a lower than average GDP. This suggests that there is a link between the level of transport costs and the level of wealth of a Member State. Driver wages have increased across Europe but they are still higher in the West than in the East of Europe.

Hauliers in the hire and reward market are often price takers rather than price makers for highly competitive work that yields low profit margins. For this reason, hauliers are always looking at ways to improve margins by reducing operational cost. Efforts to improve productivity and competitiveness have been made in areas such as reducing empty running, outsourcing unprofitable work and sourcing cheaper fuel. But a lack of funds to invest in improvements, including staff up-skilling, is a barrier. Raising

²²¹ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²²² Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

²²³ Productivity in the Irish Road Freight Industry, 2007, FORFAS

²²⁴ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, of April 2006, DG Tren, European Commission

²²⁵ Economic and Financial Characteristics of the French Road Transport Fleet, 2011, Banque de France

²²⁶ Analysis of the Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, of April 2006, DG Tren, European Commission

²²⁷ Freight Transport Report for the Island of Ireland, 2008, InterTrade Ireland

²²⁸ International Road Freight Transport in France – Driver Cost Analysis, 2008, Lumiere University

²²⁹ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

finance by the hauliers is difficult as the road transport industry is classed as high risk by lenders. Any finance that is raised is often levied at high interest rates due to the risk involved. If hauliers are struggling to raise finance then this impacts on their ability to function as a business. If this is allowed to continue then it could affect how the industry is made up and how it operates.

Any increase in costs (such as fuel or driver wage increases) will affect the profitability of an operation. Many hauliers simply struggle to pass on cost increases to the client.

8 Contracting

8 Contracting

8.1 Introduction

This chapter investigates the various types of contracts used in road haulage for example between hauliers and shippers, and hauliers and subcontractors and describe third party haulage, subcontracting, the role of a 4PL (Fourth Party Logistics Provider), and written versus unwritten contracts. We discuss the degree of consolidation in the market and explore the extent of subcontracting to small operators. We discovered instances where subcontractors acting as sole traders are placed in the difficult position of working exclusively for one principal without the protections that would come from being employees. We identify and describe the nature and role of strategic alliances between hauliers, shippers and freight forwarders and discuss current trends in the sector. We also discuss developments in typical contracting terms and conditions, the negotiation of individual contracts versus the use of fixed freight forwarders' agreements and the typical duration of contracts. Lastly we discuss the impact of developments on competitiveness, flexibility and stability of the sector.

8.2 Industry Structure

As discussed in more detail in Chapter 2 of this report the road haulage market is made up of predominantly small enterprises and as such going forward it is important to guarantee the economic efficiency of the weakest part of the supply chain, namely smaller hauliers, which provide a key service to the European economy. Many Southern and Eastern European companies have greater numbers of small operators compared to North and Western Europe. Countries such as Luxembourg and the Netherlands are specialised in the transport industry and therefore the companies there tend to be larger even though many of them are still family owned. Figure 8.1 indicates that 85% of goods companies have a maximum of five employees, while only two percent have more than 20 employees.

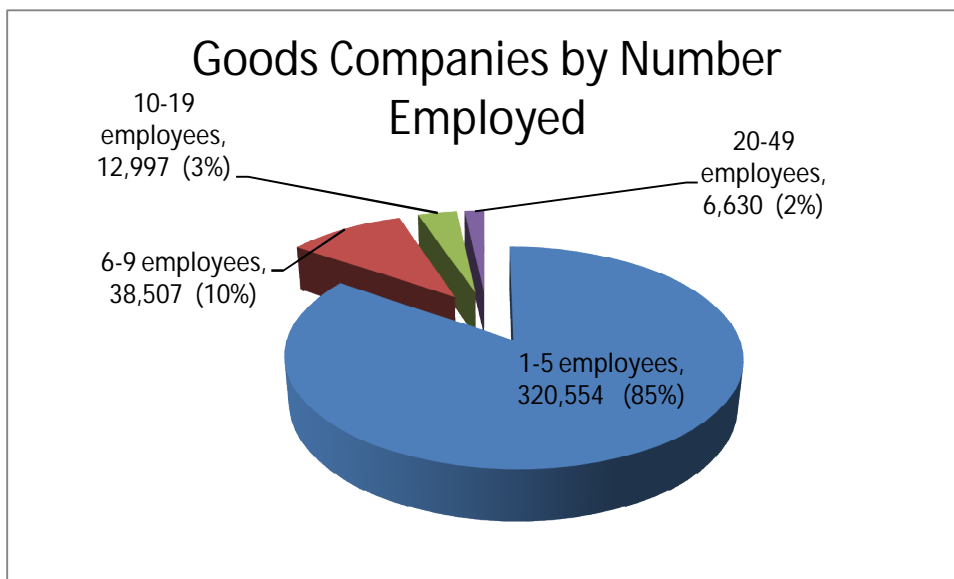


Figure 8.1 – Goods Companies by the Number of Employees²³⁰

Generally there are two types of operation in road freight; own account and hire and reward. Both can happen within the same company and both can subcontract work out to other companies.

Own account operators are those operations that are in-house for a manufacturer, wholesaler or retailer and are involved in moving the company's own products. Transport is not typically their primary business purpose and the operation may be undertaken at cost rather than being a profit making function. Some own account operators have general licences and can carry

²³⁰ Eurostat, [road_ec_entemp], 2013, Eurostat

products belonging to other companies to supplement their work volumes and make their operations more efficient perhaps by backloading. Own account operators play a larger role in domestic transport, accounting for 34% of the market²³¹.

Hire and reward operators move goods on behalf of another company and transport is their primary business purpose. The majority of international road freight transport is conducted by third party haulage contractors (operators providing services for hire or reward). Hire and reward operators are often referred to as third party haulage providers. As well as haulage services they may offer warehousing and other added value functions – such organisations are known as third party logistics providers or 3PLs. Generally the contract is concluded between the shipper of the goods and a haulier or freight forwarder. However in a small proportion of cases the contract might be with a customer that contracts haulage to collect from a factory. Then this enables the company to benefit from cheaper “factory gate” pricing.

A comparison between EU-15 and EU-12 Member States indicates that hire or reward hauliers are more important in EU-15 Member States, accounting for 80% against 68% of tonne-kilometres.²³² This suggests that the majority of shippers/customers are willing to outsource their transport requirements to other companies. Apart from the potential benefits of using 3PLs there are two further options for shippers/customers and they are to use Freight Forwarders or 4PLs as ways of using supply chain specialists to gain cost savings in their transport operations.

A Freight Forwarder is a person or company that organizes shipments for individuals or firms to get orders from the manufacturer or producer to market or final point of distribution. A forwarder is not typically a carrier, but is an expert in supply chain management either operating domestically or internationally or both. International freight forwarders, have the expertise that allows them to prepare and process the documentation and activities pertaining to international shipments. Some of the typical documents processed or reviewed by a freight forwarder are the commercial invoice, letters of credit, shipper's export declaration, bill of lading, and other items required by the carrier or country of export, import, or transshipment. Much of this information is now processed in a paperless environment. Freight Forwarders often organise consolidation of orders into viable loads for transport. This type of consolidation is also done by certain road hauliers and this is called groupage. It often enables customers that have a less than lorry load size of order, who are flexible on delivery times and days to obtain a reasonable price for the delivery whilst at the same time giving the haulier a good rate of return for the organisational effort.

CASE STUDY – GROUPE WORK, AECOM Haulier Interview

A large Dutch haulier interviewed by the AECOM study team working in food distribution and general haulage including groupage, where part loads are made up for an area and delivered as a multidrop load said, “Groupage is more profitable than our full load work or food distribution as it is more specialist and may take two to three days to complete a load but the rates are much better. We tend to use a contractor to do full loads as we can buy this cheaper than we can do it.” They tend to sub-contract this out to small hauliers and use a lot of owner drivers and for example in the UK they use 8 companies with four or five trucks each.

A Fourth Party Logistics (4PL) provider provides coordination and information services for supply chain operations. The 4PL arranges all the components needed within the supply chain, such as haulage, warehousing, and management services. 4PLs are generally considered brokers and agents (middle man) will organise transport services between transport buyers and a supplier. These are considered as freight forwarders but can include more functions. 4PLs often have a central planning facility in a client's offices thereby providing good communication and transparency of operation. Typically the 4PL may choose to subcontract all the work out and not to provide the actual transport itself so as to remain independent in its haulage rate negotiations. The contract in this type of example may include open book accounting and an agreement to share the savings through cost efficiency.

²³¹ Eurostat, [road_go_ia_tc], 2012, *Eurostat*

²³² Eurostat, [road_go_ia_tc], 2012, *Eurostat*

CASE STUDY – 4PL USED TO REDUCE COSTS IN STEEL MANUFACTURERS UK SUPPLY CHAIN, Source: UK Department for Transport Freight Best Practice Programme, 2010

Corus Steel (now TATA) appointed a 4PL, TDG (now Norbert Dentressangle) to organise the transport activity across the whole company taking opportunities for efficient back-loading and co-ordination of activity. This was made possible by the introduction of a central control centre based in Scunthorpe, UK, with on-line computer systems and improved methods of communication. The so called 'Corus Platform' co-ordinated activities to generate network-wide efficiency whilst using the majority of the original hauliers and maintaining service levels. Prior to implementation empty running was about 35% across the fleet and in some operations up to 50%. Implementation of the 4PL system has reduced empty running to 20% across the network and as well as the cost savings, improvements in service and efficiency will be generated through further supply chain re-engineering projects enabled by the Platform structure and system. The 4PL does not operate its own vehicles but negotiates contracts with hauliers as a middleman between the steel company and the operators. The vehicle planning was changed from a journey-by-journey approach to a more efficient shift approach based on optimum vehicle utilisation. This linking together of two or more jobs into an effective day's work for vehicles, referred to as 'Core Days' resulted in cheaper haulage.

8.3 Types of Contract

Contracts and contracting are typically private business arrangements often made between two individuals and may be verbal or written. A large amount of transport is conducted without any formal or written contract (up to 40% in the Netherlands)²³³. A German haulier interviewed by the study team said there is a real trend in a reduction in the number of contracts with customers as companies do not want them. Currently for this haulier 80% of the company logistics activities have some form of contract and just 40% of the transport activity has a contract.²³⁴ This may be due to a client's need for flexibility, for example the daily haulage requirements of the client of one German operator interviewed can vary by up to 100%²³⁵. Going without a contract can also mean that organisations' internal requirements for union and shareholder approval of any contracts may not apply²³⁶ and indeed there are wider implications in terms of mobile workers and the Posting of Workers Directive in that its provisions only apply where a contract exists.

A Dutch haulier expressed the view that, after co-operating with certain clients for 25 years, the lack of a formal contract – and the trust that is therefore implicit between companies – proves more effective than any contractual conditions would²³⁷. It was reported that even where customers do accept a contract they only want a short-term agreement so that if circumstances change they can alter their business promptly.

8.3.1 Between shipper and haulier

The simplest type of haulage contract exists between a shipper (transport buyer) and a transport supplier. Traditionally a shipper might ring a number of haulage contractors and determine the best price and assuming the company has basic insurance and works to a standard terms and conditions then the booking is made. The most usual situation is that the haulier is chosen by the shipper/consignor. It is then up to that contractor, having won the business, to organise their delivery as they wish providing it meets the service level requirements dictated by shipper and end user. Indeed, in France the larger haulage companies typically market a 'whole service' to shippers, proceeding to subcontract to smaller hauliers as appropriate²³⁸.

²³³ Review of the internal market in road freight transport of 29 July 2011, *UK Transport in Europe*

²³⁴ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²³⁵ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²³⁶ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²³⁷ Interview, Dutch Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²³⁸ Organization and Subcontracting Relationships in French Road Haulage 2010, *12th WCTR Lisbon, Portugal*

HAULIER INTERVIEW CASE STUDIES – GOOD CONTRACTS AND GOOD RATES

According to a Polish Haulier, the way to good contracts is to deal direct with shippers and develop good client relationships. Rates are good in Germany, UK, the Netherlands and Belgium but not so good in France unless you deal directly with a shipper. There are lots of companies trading in the open market and if you can deal direct with a supplier you can get rates of 15/20% more.

A large Dutch company has formal contracts with its customers and these contracts have quite demanding rules with stipulations on customer service, security, safety and levels of communication. But the company has a “fuel price” clause in its contracts so that if prices rise then the companies can share the pain of increased costs. This collaboration is the key to a good working relationship based on trust.

According to a Hungarian haulier interviewed, the principal condition in a contract is the price, with shippers looking purely at the cost as opposed to the quality of service (despite them expecting it). In the current competitive market, hauliers are price takers rather than price makers. This individual view is countered somewhat by the statement given by the European Shippers’ Council at the HLG shipper and forwarder hearing where it reported that bigger shippers look for low prices but insist on more than just pricing – service standards, sustainability, reliability, efficiency and versatility are major factors.

A large German company interviewed by the study team revealed, “We only have three formal contracts in place as most regular customers have a really close relationship with the company, and have no contracts as they have been with us for years. We have one year renewable contracts with a phone company and a car manufacturer, and a three year contract with a French electrical company and this is needed as we have some dedicated liveried vehicles for this important contract”.

Another German company commented, “Generally both parties know the rules and have an agreement which is written down in letter form such as damage liability, insurance, level of quality expected, the number of trucks/day expected, a copy of the licence and the phone numbers of lorry drivers etc.”

A large Polish haulier said, “We have a one year contract with our shipping companies regulating legal cooperation based on CMR conventions. The contracts often have appendices which outline quality, pricing, volumes, capacity, commitments etc. The contracts we have with the customers usually involve signing a general agreement and then new routes or volume are added as required”.

CMR - Convention on the Contract for the International Carriage of Goods by Road. Geneva, 19 May 1956 Information taken from RHA manual 2011

"CMR" is a French abbreviation, *Convention relative au contrat de transport international de marchandises par route*. International Hauliers must ensure that their hauliers' liability insurance provide appropriate protection, in particular, CMR cover. Liability under CMR cannot be modified or overridden by other contractual arrangements or trading conditions such as RHA Conditions of Carriage where the limit of liability is significantly lower. A customer can only claim higher compensation where the value of goods or a special interest in delivery has been declared in accordance with articles 24 and 26 of the convention. The convention applies to every contract for the carriage of goods by road in vehicles for reward from one country to another provided that at least one of the countries has signed up to the convention. CMR applies to the entire journey and hauliers carrying goods on international journeys must comply with the provisions of the CMR. The convention lays down the information that must be contained in the consignment note and it defines the relationship between consigner and the carrier, and what their rights and obligations are. The CMR Consignment Note should be completed by the consignor, who is responsible for the goods description and the carriage details.

8.3.2 Between forwarder and haulier

Freight forwarders tend to build up a relationship with one or more hauliers on the basis of providing a good, reliable level of service at an affordable rate. Over time forwarders tend to become knowledgeable about which contractors are good for a particular country or commodity. The forwarders produce much of the documentation for international movements and checking items such as goods in transit liability insurance is just one of many checks made. Forwarders also use shipping lines that may or may not use their own hauliers to collect the goods. Large shipping organisations are contracted to provide a full range of supply chain services and consequently transport a wide variety of goods and commodities, often in addition to what might be classed as their core competence. As goods are being moved over longer distances²³⁹, it is becoming increasingly unlikely that a single company will handle a consignment from the beginning to the end of its journey, and more likely part of its journey will be subcontracted out. It may also be the case that a haulier chooses to subcontract certain shipments, or parts of shipments, to a forwarder. This would typically be where the forwarder would have specialist knowledge, or be able to offer a specialised service, which that haulier may lack²⁴⁰.

8.3.3 Between large haulier and small haulier

The contracting of shipments to smaller hauliers is becoming increasingly common as larger companies are partnering with smaller operations to take advantage of their cost base, specific expertise or abilities i.e. high frequency services to particular destinations. Such actions can, overall, drive the price of logistics down, as for example larger hauliers are able to subcontract work that would otherwise prove unprofitable to smaller hauliers²⁴¹. In France, those carriers which subcontract haulage are primarily larger companies, with over 500 employees – this represents 61.5% of all subcontracting in the French haulage market between carriers not belonging to the same conglomerate²⁴². Indeed, it is now often the case that smaller operators prove to be economically dependent on larger hauliers, who provide a large proportion of their business and so are therefore able to negotiate preferential, or even exclusive, contracts with the smaller haulier²⁴³. In certain cases, however, the relationship may be two-way – with large hauliers often acting as subcontractors for smaller hauliers²⁴⁴, helping them to fulfil their clients' requirements and cope with any capacity shortfall on their own fleets²⁴⁵, with this latter aspect applying equally to small and large hauliers.

A large Dutch company said, "Our small contractors have to sign up to adhere to the same conditions as dictated by the end user. In return for this they are paid the same rates as are obtained from the customer less a small administration fee."

A German integrator said, "Typical terms agreed are: fixed routes price or price per km, weekly invoicing, payment terms 30-60 days, indefinite period contracts with one or three months notice. We are obliged by customers to take full responsibility for our subcontractors used. Therefore it's our obligation to take care of their training, inspect their trucks conditions, control their performance and make sure that their insurance policies fully recover potential loss or damage. We also have regular reviews with the contractor and have an auditing process for subcontractors – one to two auditors from our side conduct the audit covering: subcontractor's documentation, truck quality, driver's behavior, customer remarks or claims, performance in terms of on time collection, delivery and eventual damages or losses."

²³⁹ Derived by AECOM from Eurostat road_go_ta_lc, 2012

²⁴⁰ Organization and Subcontracting Relationships in French Road Haulage 2010, *12th WCTR Lisbon, Portugal*

²⁴¹ International Road Freight Transport in France – Driver Cost Analysis, 2009, *Lumiere University*

²⁴² Organization and Subcontracting Relationships in French Road Haulage 2010, *12th WCTR Lisbon, Portugal*

²⁴³ Impact Assessment accompanying the proposal for a Regulation of the European Parliament and of the Council on common rules concerning the conditions to be complied with to pursue the occupation of road transport operator, proposal for a Regulation of the European Parliament and of the Council on common rules for access to the international road haulage market (recast), proposal for a Regulation of the European Parliament and of the Council on common rules for access to the market in coach and bus services (recast), Commission Staff Working Paper, 2007, SEC 635

²⁴⁴ Organization and Subcontracting Relationships in French Road Haulage 2010, *12th WCTR Lisbon, Portugal*

²⁴⁵ Guidelines on Subcontracting of Chemical Road Transport, 2005, *European Chemical Transport Association*

A Hungarian haulier said “There is a first level of contractors who we must give a fixed number of loads per week and which have signed agreements in place. The second level of subcontractors are more ad hoc, but still need to meet certain conditions and we have Key Performance Indicators for them monitoring items such as, on time at delivery point, claim handling procedures and level of damages incurred”.

8.4 Subcontracting

As has been discussed in Chapter 2 subcontracting plays a major role in road haulage. Compared to a decade ago, there has been a strong increase in subcontracting within the EU road haulage market²⁴⁶. This situation has arisen due to the presence of a single market for haulage within the EU's member states, yet the persistence of (arguably widening) salary, social, and fiscal disparities between those states.

Larger companies will often subcontract to smaller operators or owner drivers for a variety of reasons including, cost, geographical coverage, to meet peak demand or to increase supply chain efficiency. It is known that some companies will outsource (subcontract) non-profitable work to smaller companies, particularly in Eastern Europe²⁴⁷. They are able to do this because these companies may have lower operating costs which in turn allow them to turn a profit on the cheaper job. The subcontracting company may take a cut of the value of the contract (akin to a finder's fee). Some companies have large seasonal fluctuations in volumes and it is usual practice to specify the fleet to off-peak requirements and hire in beyond this threshold. These subcontractors will often agree to work under the same terms and conditions set by the customer²⁴⁸ as they are in effect an extension of the subcontracting company and will often drive in their livery²⁴⁹. Certain types of load require specialist trailers and if this is a small part of a large contract it may be cost effective to subcontract this part of the operation. Similarly it can be difficult for hauliers to find backloads from a particular country perhaps due to imbalance of trade or lack of contacts. In these instances it is prudent to subcontract this work to companies interested in that work. With around 80% of haulage contracts containing no provision should significant cost increases be seen during the course of the contract²⁵⁰, and only 15% of respondents able to substantially recover fuel cost increases every year between 2000 and 2005²⁵¹, subcontracting may offer haulage companies a method of shifting haulage to lower-cost companies to control such cost increases.

There are certain downsides to the practice of subcontracting, however – especially for many of those staff working for haulage companies carrying out subcontracted transport. This practice is termed ‘social dumping - taking advantage of the disparities between EU member states to enable staff to be employed with reduced conditions – see Chapter 11.11 for a further discussion. For example, a Dutch haulier (typically transporting goods only within the Netherlands, and to Germany and the UK), has set-up a Polish subsidiary, with Polish-registered trucks. The drivers never work in Poland, but are brought by minivans to the Netherlands to work periods of four consecutive weeks, during which the drivers live in their trucks²⁵².

A Hungarian haulier interviewed by the study team has 30 subcontractors whose vehicles are liveried in company colours and are guaranteed a stated number of loads per week, which is arranged according to the hauliers' size and ability to carry out the work. These 30 hauliers account for around 50% of the loads. On top of these hauliers with signed agreements, there are also many more companies which have no formal contract in place. The system of subcontracting gives a lot of flexibility, and especially the ability to use a number of local hauliers who are dedicated to the business. Because only 50% of loads are guaranteed for these hauliers, there is also plenty of flexibility in case there is a downturn in work.

²⁴⁶ Social and Working Conditions of Road Transport Hauliers, 2013, Provisional Version, European Parliament Directorate General for Internal Policies, Brussels

²⁴⁷ International Road Freight Transport in France – Driver Cost Analysis, 2008, *Lumiere University*

²⁴⁸ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

²⁴⁹ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

²⁵⁰ Analysis Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

²⁵¹ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁵² Social and Working Conditions of Road Transport Hauliers, 2013, Provisional Version, European Parliament Directorate General for Internal Policies, Brussels

Some companies appear to have become entirely dependent on work handed to them through subcontracting²⁵³. Sub-contractors are typically found through word of mouth, through advertising or Freight Exchanges. Once details are known and the relationship established, assuming terms and conditions and rates are suitable then the companies are likely to continue to work together. With there being, in principle, no limits to the number of intermediate contracts into which a primary transport contract can be divided, it may ultimately prove to be the case that the company which ends up performing the haulage itself earns a price significantly lower than that originally contracted by the shipper²⁵⁴. This situation is likely to adversely impact harmonisation between member states; indeed, convergence between more recent member states and the EU-15 has not encouraged an upward trend towards EU-15 standards, but a shifting of business to the lower standards of the newer member states – 23% of respondents to a survey have cited foreign-registered competition as a key reason behind a fall in margins²⁵⁵.

8.5 Size of Consignment and Subcontracting.

Evidence suggests that the type of operations handling goods is linked to the weight of shipments being carried. Integrators take a large proportion of the shipments being carried below 30kg, whilst own account and one-carrier operators take large proportions of shipments above 300kg²⁵⁶.

This implies that heavier loads are being subcontracted to carriers that may specialise in loads over short distances requiring few added value services. Conversely, integrators, used for the shipment of low weight, high value goods that often require rapid, just in time deliveries, are well known for subcontracting. Other types of shipments will use one carrier or multicarrier solutions and these are largely linked to the service levels required by the client such as pick and pack, consolidation or forwarding.

In general however, the smaller the shipment, the larger the carrier owing to the need to consolidate shipments in order to remain competitive as well as provide wide geographical coverage.

As such, transport relationships are complex with an industry that invariably self determines the best solution to maintain service levels at lowest cost. The decline in average shipping weight and increase in average shipping distance has meant that the nature of transport is changing throughout Europe with the need for consolidation becoming increasingly apparent and therefore the growth of large supply chain organisations.

For full truck loads however, such large organisations are rarely used, with shippers choosing specific carriers that specialise in the relevant commodity or geographic area. This means that beyond the search for low costs, subcontracting is also strongly motivated by the will to use the subcontractor's specialized skills. In transport, these are 1) a particular destination or region, 2) a particular cargo, or 3) a particular service combining destination, departure timetable, and transit time.

8.6 Extent of Subcontracting

It is clear therefore that subcontracting plays a major role in road haulage. Table 8.1 provides a view of the proportion of work sub-contracted by the hauliers interviewed by the study team. Although not statistically robust as the sample size is too small, it is possible to conclude that subcontracting is typically running at an average of around 30% of work. Using the sample of operators interviewed in the study it is striking that only two do not enter into subcontracting and that even small to medium sized companies do sometimes contract out work. Perhaps unexpectedly smaller carriers also subcontract to larger operators suggesting a complex relationship – possibly to concentrate on their core specialism or capability.

²⁵³ Impact Assessment on Common Rules for Conditions of Occupation for a Road Transport Operator and Access to the International Road Haulage Market, 2007, *European Commission*

²⁵⁴ Social and Working Conditions of Road Transport Hauliers, 2013, Provisional Version, European Parliament Directorate General for Internal Policies, Brussels

²⁵⁵ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁵⁶ Organization and Subcontracting Relationships in French Road Haulage 2010, *12th WCTR Lisbon, Portugal*

Country/Haulier	Comments on subcontracting if quantifiable and other general notes	Sub-contract out Percentage
Netherlands		
Haulier 1	Subcontract out to owner drivers	10%
Haulier 2	Subcontract out to SMEs (Small, Medium Enterprises)	30%
Haulier 3	Subcontracting levels depend on type of commodity	50%
France		
Haulier 1	Half of sub-contract work to permanent subcontractors	60%
Haulier 2	Sub-contract out only to small hauliers	30%
Hungary		
Haulier 1	Do NOT Subcontract out	0
Haulier 2	Subcontract out 60%	60%
Haulier 3	Subcontract 50% to 1 st tier regular hauliers, 40% 2 nd tier	90%
Poland		
Haulier 1	Subcontract out only to small hauliers (1-3 HGVs)	80%
Haulier 2	Subcontract out 22%, this tends to be general haulage	22%
Haulier 3	Subcontract out 50%,	50%
Haulier 4	Subcontract out to 20/30 SMEs	30%
Haulier 5	Subcontract out 100%, as currently run no vehicles here	100%
Germany		
Haulier 1	Subcontract out mainly to small hauliers (1-10 HGVs)	30%
Haulier 2	Subcontract out to 50 small hauliers (1-5 HGVs)	30%
Portugal		
Haulier 1	Do NOT Subcontract out. Get 80% of work from shippers	0%
Haulier 2	Subcontract in 10%; 90% or work from shippers	10%
Haulier 3	85% subbed to SMEs; contract in 5%; 100% from shippers	75%
Denmark		
Haulier 1	Get 80% of work from shippers	5%
Norway		
Haulier 1	Get 100% of work from shippers	5%
Haulier 2	Get 37% of work from shippers	5%

Table 8.1 – Contracts Used by Consulted Hauliers²⁵⁷

Subcontracting is not for every business, a Danish haulier commented, “In our business we use subcontracting for flexibility but in terms of quality, we prefer our own drivers, because they know how the job should be done, and because they have the skills and attitude that our customers expect.”

8.7 Small Operators and Self-Employed Sole Traders Acting as Subcontractors

There is an active working relationship between large hauliers/freight forwarders and smaller hauliers who act as sub-contractors for them. There are several types of relationship including small hauliers that work exclusively for the larger company, others that do a significant amount and those that do an occasional load on the spot market. The level of interaction and business relationship varies across these three variants. One large multinational operator expressed concern about smaller companies disrupting the market. The same organisation however, was cited at the High Level Group's Social Organisations' Hearing for instigating a significant cost cutting exercise by converting drivers into self-employed drivers and thus having no responsibility for holidays or social security payments.

A large Polish company said, “We don't abuse our position, we work with 20 to 30 subcontractors. They know they'll be paid and we want long term cooperation and as a result we can get their flexibility and understanding.”

²⁵⁷ AECOM Consultation, 2011

Interviews with transport operators have revealed some information on the details of driver contracts. Some companies guarantee a minimum number of working hours per month²⁵⁸. This ensures a minimum wage. Other benefits include being paid a 13 month year²⁵⁹ (It must be noted that this is an individual case and other opinions may exist). It is believed unscrupulous companies have been falsely outsourcing their activities, intensifying the use of subcontracting and so called 'false self-employed drivers', in order to dodge national tax laws and labour and welfare regulations. Edit Bauer MEP has said that she is aware of this issue in a press release²⁶⁰ and has stated that false self-employment causes "distortion of economic competition."

A worker who is self employed pays less by way of tax than an employee as the self employed worker is able to claim a tax deduction in respect of certain expenses incurred in the course of carrying out his work, which he would be unable to claim as an employee. The company/person who engages the self employed worker has no liability to pay employers national insurance (for example in the UK currently at the rate of 12.8%) and this encourages many companies to seek to take on self employed workers rather than incur the greater cost of engaging employees.

The ability to reduce costs of a workforce can result in either a greater net profit for the haulier or a more competitive quotation when tendering for work (or indeed a combination of the two). However, this has been seen in some quarters to give an unfair advantage to the operator who, under the terms of the engagement should be treating it's workers as employees, but in fact treat them as self employed in order to make themselves more competitive in what is a very competitive market place.

The result is worsened working conditions in a sector where entry barriers are low. Worker turnover is by definition high in this activity. Drivers can readily be replaced by drivers from other countries who are much less costly in terms of wages and social protection. The spread of these practices has caused concern among labour organisations in Europe.

An area of particular concern is where these subcontractors may be sole traders/self-employed who could be placed in the difficult position of working exclusively for one principal without the protections that would come from being employees. In the operator interviews conducted for the study a majority of the larger hauliers were giving work to small companies and in general this appeared to be working satisfactorily. The large companies benefit from using small operators as typically they are cheaper as they have lower overheads. The use of self employed drivers by management especially when they do all their work for the parent company blurs the Chain of Command responsibility. In certain instances it seems that self employed drivers who are forced to operate outside the regulatory framework and as a consequence are operating at arm's length from the decision makers mean that the weakest are not being protected.

It is difficult to ascertain how widespread this practice, of using 'false' self-employed drivers is. The Commission's impact assessment on the amendment of the Working Time Directive²⁶¹ for mobile workers suggests that 11% of all drivers could be categorized as such. The closest the study team heard about this issue was a Polish company interviewed that only employed two full-time drivers, and until recently had nine further "sole-traders". But, with new legislation in Poland, it has been necessary to take these drivers on as employees as they were wholly connected with the company. This new act is a realisation of Directive 2002/15/EC Working Time for Mobile Workers to close a loop in the regulations; originally the general working time Directive 1993/104/EC²⁶² excluded the transport industry from its scope, and using sole traders had been a way to get around a restrictive

²⁵⁸ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

²⁵⁹ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

²⁶⁰ Press release, Edit Bauer MEP, EPP Group in the European Parliament of 16 June 2010 – Road transport directive: the Polish plumber haunts self employed drivers

²⁶¹ Impact assessment accompanying the proposal for a directive of the European Parliament and of the Council amending Directive 2002/15/EC of the European Parliament and of the Council of 11 March 2002 on the organisation of the working time of persons performing mobile road transport activities, 2008, *European Commission*

²⁶² Council Directive 1993/104/EC of 23 November 1993 concerning certain aspects of the organization of working time, *OJ L 307, 13.12.1993, p. 18–24*

labour code. Indeed, while Directive 2000/34/EC²⁶³ extended certain provisions to road transport mobile workers, self-employed drivers (thought to account for 31% of all drivers²⁶⁴) remained excluded.

In Poland, social insurance premiums for a sole trader are based on a declaration by the sole trader. This is used to work out monthly payments which are compulsory. The tendency is to declare at the lowest possible amounts so that monthly premiums are low. The lowest rate you can declare in Poland is currently a premium of 860 PLN/month which as can be seen below is significantly below what an employer would have to pay for his regular drivers. It is likely that a company paying 3,500 PLN/month would have to pay 1,235/month (35%) and not 860.

Companies that have been utilising the concept of sole traders have therefore been operating at a lower cost base which may have given them a competitive advantage over hauliers that have not done this.

Case Study – Using sole traders to minimise social insurance premiums, AECOM Haulier Interview

In Poland it is likely that a company paying wages of 3,500 PLN/month would have to pay an extra 1,235 PLN/month (35%) to the social fund and not just the basic 860 PLN if they employed a driver directly rather than using a sole trader. When you are a sole trader there is no such thing as a minimum wage. If you are a sole trader then there is no provision into a holiday fund. You can claim a small benefit if you get sick, paid (ZUS) by the social insurance fund. Sole traders are also not generally setting aside money for a pension unless they do it privately. Companies that have been exploiting the concept of sole traders have been cutting corners and been operating at a lower cost base which may have given them a competitive advantage over hauliers that have not done this.

A large Polish company said:

“The contracts we do for owner drivers are variable, sometimes the contractor can buy the truck, and other times he can lease it from us. The contractor is generally responsible for fuel as the host has not got a permit to sell fuel. The company is the main and sometimes only purveyor of work. The work is planned into round trips in order to make it efficient for the subcontractors who get a fair mix of work. If there is any work left after allocation to regular contractors then they are issued on a spot basis. Quality control is essential and the company trains the transport manager and drivers of contractors as to what is required. Items such as reading quality manuals, checking trucks, fulfilling quality checking and reporting discrepancies are all important. The owner drivers and contractors are responsible for their own terms and conditions including holidays and sick pay.”

Substantial research has taken place on the subject of "false" self-employed drivers; this was one of the main subjects of the withdrawn proposal on a revision of Directive 2002/15/EC on Working Time for Mobile Workers. The impact assessment and the subsequent legislative proposal deal with the problem of low level of compliance with the Directive's provisions concerning the "false" self-employed drivers. The action is necessary in order to ensure that the Community rules are respected and evenly and effectively applied by all actors who are in scope of them. The current regulatory regime regarding social rules in road transport contributes to the sustainable objectives of the transport policy, namely aligning the conditions of competition, improving road safety and enhancing the health and safety protection of persons performing mobile road transport activities.

Findings from the research were that the working time rules set out in the Directive were applied and complied with throughout the Member States with significant delay. Further investigations and stakeholder consultations carried out proved the low level of compliance with the Directive's provisions concerning "false" self-employed drivers that should already be fully covered by the

²⁶³ Directive 2000/34/EC of the European Parliament and of the Council of 22 June 2000 amending Council Directive 93/104/EC concerning certain aspects of the organisation of working time to cover sectors and activities excluded from that Directive, *OJ L 195, 1.8.2000, p. 41–45*

²⁶⁴ Impact assessment accompanying the proposal for a directive of the European Parliament and of the Council amending Directive 2002/15/EC of the European Parliament and of the Council of 11 March 2002 on the organisation of the working time of persons performing mobile road transport activities, 2008, *European Commission*

provisions of the Directive. This is based on the fact that the Directive does not contain any specific or even general provisions concerning the control of its application. The Member States have only the unspecific general obligation to see that laws are applied. The Commission originally proposed that working time rules would be controlled together with driving time rules under Directive 2006/22/EC, but the legislator did not adopt this approach.

This in fact undermines the Community rules and puts at stake achievement of the key policy objectives underlying the Directive, as uneven level of monitoring and controls of the application of the Directive creates the distortions of competition between those transport undertakings and drivers who abide by the rules, and therefore bear the corresponding compliance costs, and those who deliberately ignore the rules. In addition to this, transport undertakings that disobey the rules put at risk the health of drivers by consciously excluding them from the social protection measures provided by the Directive.

The low level of compliance was thus identified as the main additional problem related to the basic problem of the scope of the Directive with regard to self-employed drivers, which needs to be finally resolved as foreseen by the Directive. This situation undoubtedly calls for an action at the EU level, as it would be unproductive and against the objectives of the Commission's Better Regulation strategy to maintain the law in a form, which is not enforceable.

The category of 'false' self-employed is composed of drivers that are formally self-employed since they operate on hire or reward and are not tied to an employer by an employment contract or by any type of working hierarchical relationship, but they work regular hours for the same shipper or transport firm on a long-term basis, hence they depend on a single entrepreneur for their source of income. Even though this category is not explicitly defined in the Directive, such drivers are subject to the same obligations and benefits as those provided for mobile workers, as they do not satisfy the criteria of the definition of 'self employed driver' given in Article 3 (e) of the Directive. In other words, a "false" self-employed driver is in fact a mobile worker.

The particular distinction between definition of 'mobile worker' and 'self-employed driver' seems not to be applied correctly, which results in enhancement of the phenomenon of 'false' self-employed. Definitely the direct effect of this phenomenon is the distortion of competition as such operators and their in-house sub-contractors ('false' self-employed) would compete on an unfair basis.

Further issues concerning self-employed drivers are explored in Chapter 7.3 of this report.

8.8 Nature and Role of Strategic Alliances between Hauliers, Shippers and Freight Forwarders

There is an increasing use of web based services which is enabling companies to optimise their fleet usage by securing backloads and/or cabotage movements. On such services, for example the Timocom freight exchange, up to 300,000 international vehicles and freight offers are made daily.²⁶⁵

Whilst hauliers have been adopting web based technology to help them find loads and optimise efficiency, freight forwarding 'agents' still play an important role in the organisation of international road freight movements. Freight Forwarders usually act as agents, providing services to customers buying transport capacity. They simply make transport services available without obligation but if a freight movement takes place they take a commission fee for the organisation. Alternatively, the forwarder buys services from a range of different providers and then sells the overall package, which may be 'branded' by the Freight Forwarder. Companies can also combine both roles as transport provider and forwarder. Freight Forwarders can also improve efficiency by identifying backloads and cabotage opportunities. As an example of the size of the freight forwarding industry, CLECAT's members are responsible for 65% of cargo transported by road²⁶⁶. Although hauliers may work efficiently individually, a freight forwarder, 3PL or 4PL can optimise the entire supply chain, improving vehicle usage and reducing empty running.²⁶⁷

One area of strategic alliances that has been growing over recent years has been collaboration between hauliers to create pallet or parcel networks. This enables national distribution to be conducted by a partnership of regional hauliers. Several pallet

²⁶⁵ TimoCom Soft-und Hardware GMBH, 2012, www.timocom.co.uk

²⁶⁶ www.CLECAT.org, 2012, *About our Activities - CLECAT*

²⁶⁷ The Benefits of Central Supply Chain Management: Corus and TDG Case Study, Freight Best Practice, 2009, UK DfT

networks have grown up in the UK which tend to have a national hub in the middle of the country and then contract out the collection and deliveries to a network of haulage providers who would not only do the local work but also the trunking to the central hub. The local work would be allocated by postcode on a type of franchise basis. All the pallets or parcels to/from each set of postcodes for example for Bristol would be looked after by one company. Agreed service levels would have to be maintained in order to provide a reliable, national coordinated network. These types of contract are sought after as they offer regular, daily volumes of freight for movement. These networks also have international connections into other countries.

8.9 Duration of Contracts

According to research undertaken on behalf of the European Commission²⁶⁸ the duration of most road haulage contracts (around 80 %) is one year or less (including single contracts, for one trip), hardly any contracts cover a time span longer than two years. Besides single contracts, the one year-contract is the most common. It further appears that a large amount of transport is carried out without any written contract. Information from the Dutch hauliers' organisation TLN indicates that this realties to up to 40% of all transport. These 'oral contracts' mostly refer to single trips.

The relatively short duration of contracts (where they do exist) has been largely validated through the haulier interviews conducted for the study. Table 8.2 identifies the high incidence of one year contract terms although some longer contracts are found, for example in specialist areas such as the movement of cars which require investment in vehicles that cannot be used for other purposes.

Where a contract does exist, they have reduced in length of duration²⁶⁹, meaning that renegotiation has become a more frequent activity. The issue with this is haulage companies might use contracts as proof of revenue for seeking business loans and to act as other guarantees. Shorter contracts increase the risk of exposure and have heralded reduced opportunity for future investment²⁷⁰.

The reason for the changes in the way contracts are written has been cited as competition. Competition has made contract terms and conditions worse²⁷¹. Terms and conditions can vary from one country to the next, for example in Spain no notice period of contract cancellation is required²⁷² and sometimes no contract is even used. In France, the Gaysot Law protects subcontracts by requiring some notice period²⁷³ (It must be noted that this is an individual case and that different opinions exist).

According to a large Portuguese haulier working for several "blue chip" customers, their contracts have now reduced to about 18 months in length and typical contract length in Portugal is about one year. This has happened since Portugal joined the EU and is a result of competition. Contracts are renewed by competitive tender. The result is that haulage is now a very competitive market with customers expecting a high level of service quality but not necessarily choosing to renew contracts based on performance.

A large Polish operator commented that "we have more than 300 companies that we work with on an ongoing basis and the one year contracts tend to roll on unless there are issues. The 50 to 80 bigger companies provide 90% of our requirements but there is good cooperation with the small companies and owner drivers too." Table 8.2 shows the average length of contract period for the companies consulted with. One year contracts are the most common.

²⁶⁸ Analysis Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, 2006, *DG Tren, European Commission*

²⁶⁹ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁷⁰ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁷¹ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁷² Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

²⁷³ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

Country/Haulier	Sectors	Contract Period, years
Netherlands		
Haulier 1	Dry bulk, tankers, construction, food	1
Haulier 2	Tanktainers, intermodal, ADR Chemicals, food, groupage	indefinite
Haulier 3	Food, Intermodal	indefinite
France		
Haulier 1	General haulage, automotive	2 – 6
Haulier 2	Parcels	1
Hungary		
Haulier 1	Construction, packaging, electrical components, raw materials	1
Haulier 2	Freight forwarding, general haulage, pallets	1
Haulier 3	ADR Chemicals, retail	1
Poland		
Haulier 1	ADR Chemicals, Petroleum	indefinite
Haulier 2	General haulage, abnormal loads	1 or 3
Haulier 3	Automotive	1
Haulier 4	Food	1
Haulier 5	Fashion, retail	indefinite
Germany		
Haulier 1	Automotive, food	1 (3 yrs on 1)
Haulier 2	Building sector, food	1
Portugal		
Haulier 1	General haulage, automotive, food	Was 3 now 1
Haulier 2	Pallets	1
Haulier 3	Integrated 3PL, food/drinks, automotive	2 - 3
Denmark		
Haulier 1	General haulage	unknown
Norway		
Haulier 1	General haulage	unknown
Haulier 2	General haulage	unknown

Table 8.2 – Duration of Client Contracts for Consulted Hauliers²⁷⁴

8.10 Contract Terms and Conditions

Contracting terms and conditions of individual contracts are not always on favourable terms for the haulier who may not be in a sufficiently strong position to negotiate more favourable terms. An example of this can be seen when a large Polish haulier interviewed for the project, commented on contracts between shippers and hauliers, “Supply is higher than demand in transport capacity so clients are stronger and contracts are not in favour of transport companies. I don’t know of a contract that has a fixed volume, it is just not a balanced two-way process. Some contracts are very tough and restrictive imposing penalties if you can’t move loads, payment terms are strict, clients misuse/impose new terms to suit themselves.”²⁷⁵ This further reinforces the position of the haulier as price taker not price maker in the logistics industry.

According to the Polish office of one of the pan European logistics providers interviewed by AECOM, the recession meant that 2009-2010 were quite stable years in terms of cost base. “However starting from the second half of 2011 we are facing permanent growth of subcontractors rates, caused by fuel prices jumps, new road tax implementation (ViaToll – July 2011), insurance costs doubled in a year. In fact we are in permanent price negotiations either with subcontractors or customers.”

²⁷⁴ AECOM Consultation, 2011

²⁷⁵ Interview, Polish Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

8.10.1 Notice Periods

A French transport company, interviewed as part of the study, advised us that sub-contracts in France are partly regulated by the Gayssot law which was introduced in 1990 and aims to avoid discrimination based on size of organisation or nationality of the business. Their contracts tend to run for a year with various notice periods:

- one month notice for three months operations carried out
- two months notice for six months operations carried out
- three months notice for anything above six months operations carried out

The French company also said that conditions vary in different countries, for instance in Spain there are no contracts and practically no notice, although they are currently trying to negotiate a month's notice.

8.10.2 Fuel Price Clause

Some contracts may cover long periods of repeat work. Fuel costs can fluctuate over time and typically, this is an upward trend. Between the beginning of January 2005 and July 2012 the EU weighted average diesel price increased from €0.93/litre to €1.49/litre. Furthermore a weekly comparison shows that in 208 of the 371 weeks the diesel price had increased²⁷⁶. A consequence of this in long term contracts is that the increased fuel costs may make the contract uneconomical. The majority of contracts have a fixed price for fuel as a result of the tendering process²⁷⁷. Only a small proportion allow for strong increases in costs and even if a fuel price clause exists it is apparently not a guarantee that higher rates will be paid by the shipper.

8.10.3 Load Insurance Versus Rates

Several companies have said they have had to turn down work if the value of the load is too high for their insurance cover. A Polish company said that if the value of the load is more than one million PLN then they will not accept it unless insured by the shipper as the risks are too high. Similarly, a German haulier consulted with has a limit of €500,000 per load.

8.10.4 Payment Terms

A contract will give some indication of the maximum period of time that will elapse between conducting the transport operation and payment for it. There appears to be a trend that this payment term period is getting longer with 77% of respondents in a survey mentioned it was longer than in 2000²⁷⁸. A recent article in Logistics Manager magazine²⁷⁹ outlines that this is still the case and that British businesses are an average of fifteen days late against agreed payment terms. This has meant that transport buyers are taking longer to pay the transport suppliers so that cash flow has become an issue within the transport company. This was made worse with the onset of the recession causing increased levels of bankruptcy. An example was given of shippers being selective in how they treat payment terms and deliberately find reasons to delay paying, "The terms were 45 days from the delivery date but arguments started saying payment is 45 days from receipt of invoice. Then on 45 days the invoice was sent back due to a minor administrative problem. The bigger the company the worse this is even though they have more money."

A Portuguese haulier interviewed by the AECOM study team confirmed that "clients are delaying payments even more than usual and there is concern whether they are ever going to pay". The average payment term is currently 74 days but the general market has worsened to 120 day payment terms. The company is trying to reduce payment terms to 60 days as this is what they pay their subcontractors. A significant outlay that hauliers have to make is paying for their fuel. In Portugal the same haulier said "The big companies are given 15 days to pay, although due to our size we are allowed 30 days, but small companies are given no credit by the fuel suppliers. With this imbalance of payments in and out it is no wonder banks see the haulage sector as a risk so refuse to lend".

²⁷⁶ Market Observatory Oil Bulletin, 2012, *European Commission* http://ec.europa.eu/energy/observatory/oil/bulletin_en.htm

²⁷⁷ Analysis Impact of Oil Prices on the Socio-Economic Situation in the Transport Sector, of 27 April 2006, *DG Tren, European Commission*

²⁷⁸ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

²⁷⁹ <http://www.logisticsmanager.com/Articles/20592/Turning+on+the+cashflow.html>, 2013

8.11 Impact of Contractual Developments on Competitiveness, Flexibility and Stability of Sector.

It was commented by a German haulier that “although the lack of contract is alright because most business relationships works on trust, the ability to obtain a formal, longer contract could enable the company to invest in more modern systems, new warehousing and equipment”. This lack of certainty for the future is somewhat inhibiting investment in innovation. Few companies would be willing to sign a contract greater than a year as they would have to ask the unions and the shareholders.

Contracts do not necessarily guarantee the stability of a business as the following case study illustrates.

CASE STUDY – Risk, AECOM Haulier Interview

A small Hungarian haulier has learned the hard way that even if you have contracts and agreements they do not safeguard your work as circumstances change. Despite working successfully for a construction company for nine years, in 2003 the tipper truck part of the business stopped because the company who were subcontracting the work decided to take the work in-house and this resulted in the loss of work for six vehicles. The company had also been running international operations to countries such as Austria for 13 years but perhaps as a result of the recession it had to stop because the company found it very difficult to get return loads back to Hungary from the various countries and this meant they could not be competitive on the outbound leg. They currently have a contract to do work for automotive company Suzuki as a sub-contractor with a certain number of loads per week guaranteed. They are able to compete, but are always concerned that Suzuki might not renew contract and that work will dry up. It is a very difficult economic climate in Hungary and hard to plan for the future. They would like to expand the fleet but cannot guarantee the work and having lost two types of work in the past which left them with spare vehicles it has made them cautious. Although they have ambitions to expand the operations and develop the use of new technologies, as a small company in the current climate it is about survival and not overstretching yourself. So they are just looking at the situation from month to month, rather than planning anything long term.

A large Polish company advised that they were concerned with competition from medium size companies with a medium size number of trucks (50-70 vehicles) as they could possibly take their business. So they are careful which company they subcontract to and thus avoid giving commercial information away.

Worthy of note for Western European companies is this statement also from a Polish haulier, “The biggest source of contractors for us is Lithuania, followed by Poland and Russia third. We also cooperate with companies in Spain, Hungary the Czech Republic and Germany. Once a contract has been won by an Eastern European country then it is difficult to engage with a Western European company as the rates may not be viable for a Western based company to consider doing the work.

8.12 Concluding Remarks

Road haulage relationships are complex, ultimately the industry invariably self determines the best solution to maintain service levels at best cost. A decline in average shipping weight and increase in average shipping distance has meant that the nature of transport is changing throughout Europe with the need for consolidation becoming increasingly apparent and therefore the growth of large supply chain organisations. Recent years has seen the rise in size and importance of pan European logistics providers such as DHL, Schenker and Norbert Dentressangle. Companies such as these provide complete transport solutions but most rely heavily on subcontracting work to smaller entities and owner-drivers who provide low margin traction only services. There are several types of relationship and dependencies, including small hauliers that work exclusively for the larger company, others that do a significant amount and those that do an occasional load on the ‘spot’ market. One area of strategic alliances that has been growing over recent years has been collaboration between hauliers to create pallet or parcel networks. This enables national distribution to be conducted by a partnership of regional hauliers.

Subcontracting in transport is done for many reasons including; cost saving; covering a peak in demand; a particular service not suited to the main operation; a specialised cargo requirements and; serving a particular destination or region, particularly where there is little prospect of a backload. Companies will out-source non-profitable work to smaller companies, particularly in Eastern Europe. They are able to do this because these companies may have a lower operating cost which in turn allows them to turn a

profit on the cheaper job. Whilst extensive subcontracting practices provide a responsive resource, this level of fragmentation in the market can lead to an imbalance in the ability of small operators to fully recover costs such as fuel price increases. Fuel surcharge agreements are on some contracts but they can be difficult to action. Payment terms, where the buyer takes longer to pay the carrier, has been a feature of the industry in the last decade, and this situation has been exacerbated by the economic recession.

It is difficult to establish the exact extent of sub-contracting in the road haulage industry, it can be seen from interviews conducted by the study team with hauliers that some are entirely reliant on the outsourcing of traction, whilst others entirely win their own work directly from shippers and carry out the work with their own vehicles and drivers. From this 'snap shot' of operations we can estimate that overall perhaps 30% of European haulage business is sub-contracted. The freight forwarding sector suggests that it is responsible for two-thirds of all European road cargo.

The impact on the market of the apparent increase in the volume of haulage undertaken without formal contract on the 'spot' market is not entirely clear. On the one hand it facilitates a responsive market, but on the other creates a barrier in terms of long-term surety for hauliers and the ability to plan and invest in operations.

Whilst terms and conditions between the shipper and carrier are laid down by the international CMR Convention, and evidenced during transport by a CMR consignment note, much 'business' (up to 40% in countries like the Netherlands) is conducted 'on trust' and without contract. Where there is a contract, most are relatively short term – typically for one year and there is a general trend towards shorter term contracts. Although the lack of a long term contract or indeed any contract at all may generally be alright because most business relationships work on trust, the ability to obtain a formal, longer contract could enable the transport company to secure funding to invest in more modern systems, new warehousing and equipment. This lack of certainty for the future is inhibiting investment in innovation.

9 Cabotage

9 Cabotage

9.1 Background

Cabotage is the movement of freight, for hire or reward, from one point in a country to another point in the same country by a foreign HGV. This makes it distinct from international traffic which is from one country to another country by a HGV registered in either of those countries or cross trade which is from one country to another country by a HGV registered in a third country.

The cabotage rules are defined by Regulation (EC) No 1072/2009²⁸⁰, and came into effect over a period of time with Romania and Bulgaria still being subject to a transitory period of restrictions in access to the market. This was also the case for countries which joined the EU in 2004 (albeit under the previous Regulation). The regulation states the rules and practices that are allowed and any restrictions. To be in line with the 2011 White Paper on Transport²⁸¹, which states that “the elimination of remaining restrictions on cabotage should be pursued”, the EU intends to relax cabotage in the future to the point that it is completely liberalised dependant on progress towards harmonisation. In a fully harmonised market cabotage would allow hauliers to run their vehicles at a higher level of efficiency without using lower social costs to exert unfair competition and distort domestic markets.

Whilst international and cross-trade movements are fully liberalised, hauliers are only allowed to conduct up to three cabotage operations as long as the last cabotage movement is complete within seven days of the last unloaded international movement. Alternatively, if the cabotage movement is not preceded by a laden international movement, the vehicle can do one cabotage movement within three days of unladen entry into that Member State. Regulation (EC) No 1072/2009 also details the documentation required to prove eligibility for conducting cabotage.

Caboteurs are subject to the laws and regulations of the host Member State regarding conditions governing the transport contract, the weight and dimensions of road vehicles, requirements relating to carriage of certain goods, for example dangerous goods, perishable food-stuffs and live animals, driving time and rest periods and value added tax on transport services.

In the event that cabotage operations create or aggravate a serious disturbance in a national market there are provisions for the Member State to notify to the Commission of their intention to implement safeguarding measures for a period of six months.

As of January 2012 all 27 Member States can conduct cabotage operations. Bulgaria and Romania had limited access prior to this.

Since the current rules have only been in place since mid 2010, there is limited literature on the subject and Eurostat have not yet published results for a full year under the current cabotage rules, therefore true statistical analysis of the effects of this recent change is not possible. For these reasons the available literature, 2011 statistics, haulier interviews and high level group questionnaire responses have been used to inform this analysis.

9.2 Current Market

Cabotage makes a very small percentage of total goods moved; approximately 1.7% of domestic transport. Cabotage is more likely to take place in the long distance market than in short distance markets such as urban distribution. This is due to a number of reasons including the limitations on number of drops, organisation difficulties and suitability of vehicles; Vehicles used for international transport are predominantly larger HGVs which cannot compete economically on short haul transport, which is predominantly conducted by smaller rigid HGVs and vans. Hence cabotage has a larger share of the long distance haulage market²⁸².

In 2010 97.6% of cabotage was conducted in EU-15 states, the largest cabotage markets are Germany and France with over six billion tonne kilometres of cabotage undertake. Furthermore, the most cabotaged countries belong to the Western part of Europe:

²⁸⁰ Regulation (EC) No 1072/2009 of the European Parliament and of the Council of 21 Oct 2009 on common rules for access to the international road haulage market, 2009, *European Parliament, OJ L 300, 14.11.2009, p. 72–87*

²⁸¹ White Paper Roadmap To A Single European Transport Area – Towards A Competitive And Resource Efficient Transport System Brussels, 28.3.2011 COM(2011) 144 Final

²⁸² Scottish Freight Strategy Scoping Study, 2006, *Heriot Watt University*

86% of total cabotage takes place in Germany, France, Italy, United Kingdom, Belgium and Sweden. These countries have large domestic haulage markets, are centrally located and conduct considerable international trade.

Figure 9.1 illustrates that when comparing the level of cabotage to the total domestic market, cabotage is a small proportion: Germany – 2.5%, France – 3.6%, Italy – 1.0%, Belgium – 5.0% and Sweden – 3.1%.

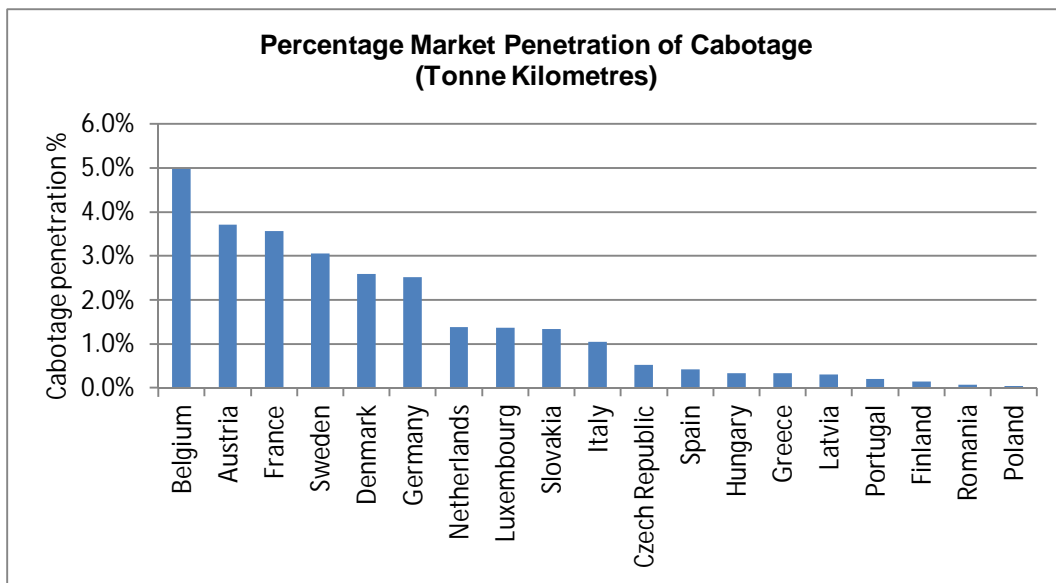


Figure 9.1 – Percentage Market Penetration of Cabotage, Tonne Kilometres²⁸³

Figure 9.2 shows that France and Germany are the territories within which the most cabotage activity in million tonne/ km is conducted. In Germany in particular over half of the cabotage activity is conducted by EU-12 hauliers.

²⁸³ Eurostat, [road_go_ca_c], 2012, Eurostat

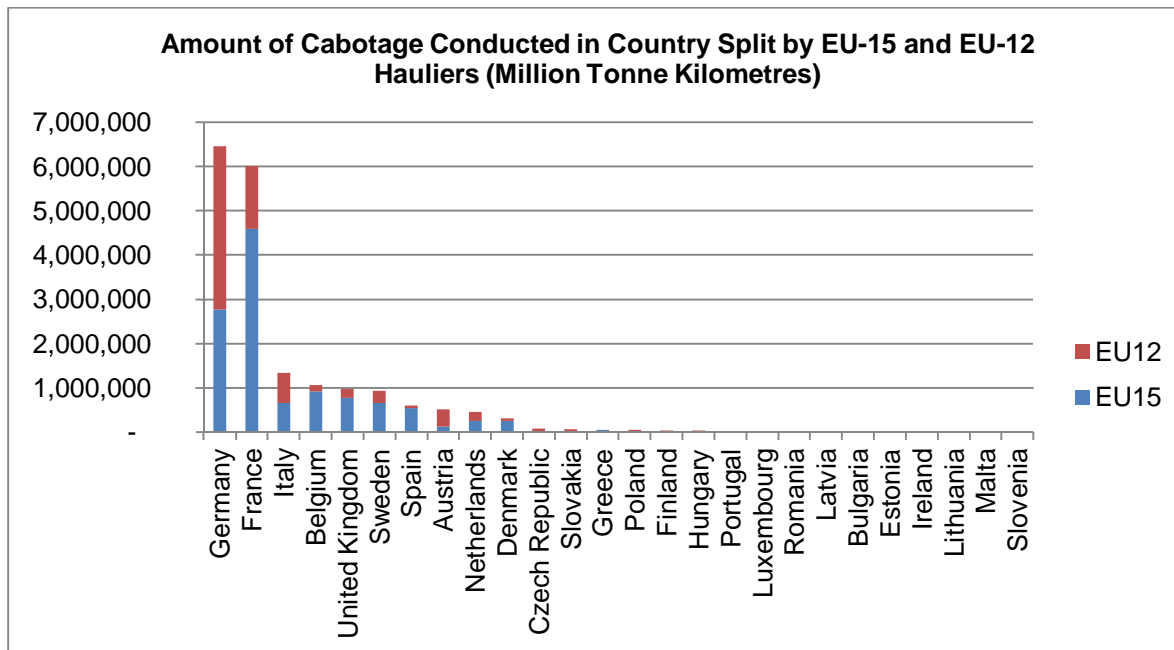


Figure 9.2 – Amount of Cabotage Performed within Member States, Million Tonne Kilometres²⁸⁴

The amount of cabotage conducted has increased substantially in the past decade. Overall there has been a large increase in the level of cabotage from 7.2 billion tonne km in 1999 to 19.0 billion tonne km in 2011. In 2003, the total amount of cabotage conducted was 11.2 billion tonne km. In the following year, with the enlargement of the EU, the amount of cabotage performed in the EU-15 by new Member States began to increase rapidly; there is a more than ten-fold increase from 0.6 billion tonne km in 2004 to 7.3 billion tonne km in 2011. Between 2004 and 2011 the total amount of cabotage grew at an average rate of 4.65% per year, cabotage in the EU-15 grew at a similar 4.50% per year over the same period. The amount of cabotage carried out by hauliers based in the EU-15 declined at an average of 1.71% per year.

9.3 Who is Conducting Cabotage?

Most cabotage is performed in neighbouring countries²⁸⁵ in 2010 66% of cabotage was conducted in a neighbouring country and hauliers from Belgium, Ireland, France, Luxembourg and the United Kingdom conducted more than 90% of their cabotage in neighbouring countries²⁸⁶.

Cabotage is generally of greater importance to smaller Member States that are located in the centre of the EU or are close to the UK, Germany or France²⁸⁷. The largest caboteur countries were Poland, Netherlands and Luxembourg. Roughly one fifth of all cabotage, over four billion tonne kilometres was undertaken by Polish hauliers in 2010, over half of this was in Germany and close to 100% was performed in EU-15 countries.²⁸⁸

²⁸⁴ Eurostat, [road_go_ca_c], 2012 Eurostat

²⁸⁵ Study on Cabotage in the Road Freight Industry, 2006, DG Tren, European Commission

²⁸⁶ Derived from Eurostat, 2012, [road_go_ca_c], Eurostat

²⁸⁷ Study on Cabotage in the Road Freight Industry, 2006, DG Tren, European Commission

²⁸⁸ Eurostat, [road_go_ca_c], 2012, Eurostat

Poland is a large provider of cabotage services due to having a large fleet of vehicles and also due to its location in relation to large markets such as Germany. In some cases Polish operators are often able to work at lower rates than domestic hauliers in EU-15 countries due to lower wages although this is not always the case. In certain circumstances they also operate at similar wages as local competitors under the directive on Posting of Workers²⁸⁹.

64% of cabotage is undertaken by EU-15 countries. This figure varies between Member States, for example close to 100% of cabotage in Portugal is undertaken by Spanish hauliers. In France 79% of cabotage is conducted by EU-15 hauliers, a Polish haulier indicated that haulage rates in France were not as good as other Western European countries, this may reduce the attractiveness of cabotage operations. This figure drops to 62% in Netherlands and 46% in Germany. In Poland, the cabotage market is 40 million tonne kilometres, split 56:44 between German and Estonian hauliers. Poland was the only significant caboteur operating in Hungary.²⁹⁰

Cabotage in peripheral countries such as Ireland, Finland and Portugal tends to be conducted predominantly by one, neighbouring country; United Kingdom, Estonia and Spain respectively. However, hauliers based in peripheral countries did conduct cabotage outside of these neighbouring countries. For example, Irish hauliers conducted nearly eight million tonne kilometres of cabotage in France and close to 10 million tonne kilometres in Italy in addition to 312 million tonne kilometres in the United Kingdom. Figure 9.4 shows the amount of cabotage being undertaken by hauliers from EU Member States.

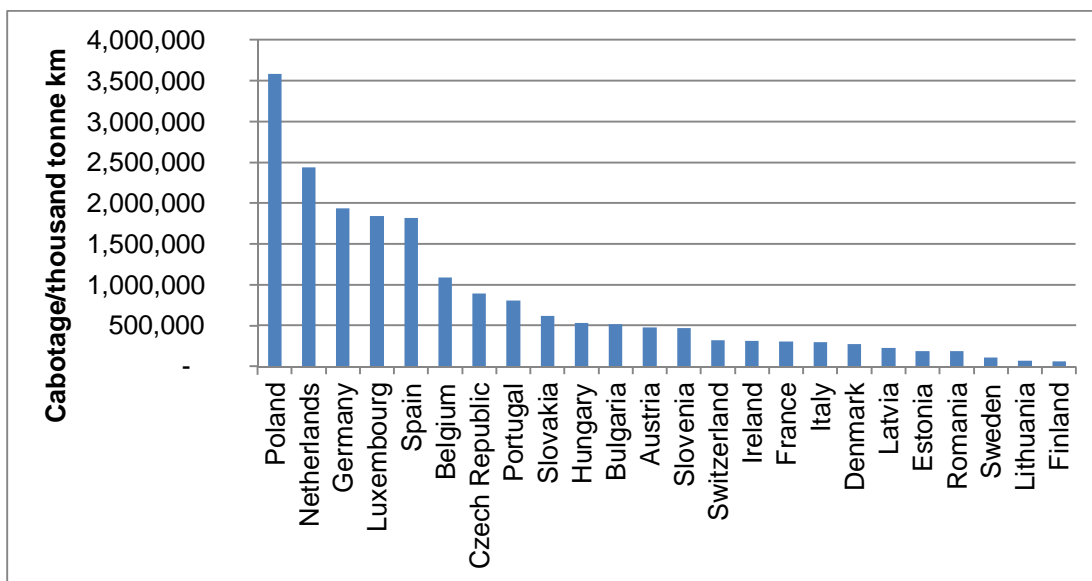


Figure 9.4 – Amount of Cabotage Performed by Operators from Member States, Thousand Tonne Kilometres²⁹¹

A matrix of cabotage operations showing the amount of cabotage conducted in each Member State and the nationality of the haulage company conducting the cabotage is provided in Section 1 of the Appendix.

Cabotage operations in niche markets such as dangerous goods and automotive are more difficult to conduct as locating loads on an ad hoc basis is often not possible, for that reason cabotage is often only conducted when a load from an established client

²⁸⁹ Directive 1996/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services, *OJ L 18, 21.1.1997, p. 1–6*

²⁹⁰ Eurostat, [road_go_ca_c], 2012, Eurostat

²⁹¹ Eurostat, [road_go_ca_c], 2012, Eurostat

is available.²⁹² Conversely specialist markets such as the transportation of cars do however provide a predictable demand for cabotage operations where countries such as UK and Ireland have age related vehicle registration systems that create 'seasonal' peaks in vehicle sales.²⁹³

9.4 Cabotage in Practice

Cabotage is frequently performed by hauliers to reduce the number of empty miles driven²⁹⁴. Some hauliers pre-plan cabotage²⁹⁵ whereas others do not. Pre-planned cabotage often relies on good relationships with clients.

In the case of ad hoc cabotage, hauliers might ask subsidiaries if a load needs moving or by consulting a freight exchange²⁹⁶. Whilst some companies are wary about using freight exchanges to secure cabotage or backloads as it is sometimes difficult to verify the customer which exposes the haulier to risk. However the practice does seem widespread with many companies interviewed by AECOM study team stating that they used freight exchanges and that these allowed them to secure valuable loads and improves their vehicle efficiency. It is often better for hauliers to keep a vehicle in one place and wait for a suitable backload rather than running it at a loss or empty.²⁹⁷ Other companies refuse work if they cannot secure a backload for that movement.²⁹⁸ Other companies will look for a return international load when doing an international delivery²⁹⁹.

During an interview conducted by the AECOM study team a Dutch haulier stated that they perform cabotage in the UK by taking unaccompanied trailers from an east coast UK port to Northwich near the west coast, which reduces the number of empty miles driven and gives the company extra efficiencies and profit³⁰⁰. In addition a Portuguese haulier indicated that cabotage in France made their operation more profitable as the trade imbalance between Portugal, Spain and France meant that getting backloads for goods back to the Iberian Peninsula was difficult.³⁰¹

There are some cases where conducting a domestic movement will be more profitable than a direct backload.

Case Study – Domestic rates better than international, AECOM Haulier Interview

The Netherlands - South of France – Brittany – The Netherlands

A Dutch haulier delivering a load from Amsterdam to Marseilles found that the best return loads available from the South of France were not international backloads to Netherland which would have paid just €800 but were in fact French domestic loads to North West France which were paying €1,100 and then gave the haulier the chance to obtain a further load from Paris/Northern France back to The Netherlands. Even if the company was not successful in finding this "third" load, the company more than covered the additional costs of running via Northern France.

²⁹² Interview, Polish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁹³ Consultation on proposals to allow ministers to relax the EU cabotage rules for car transporters during the peak registration, 2012, UK DfT

²⁹⁴ Study on Cabotage in the Road Freight Industry, 2006, DG Tren, European Commission

²⁹⁵ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2006, CNT

²⁹⁶ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

²⁹⁷ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁹⁸ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

²⁹⁹ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰⁰ Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰¹ Interview, Portuguese Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

Some companies interviewed do perform cabotage but it only accounts for a small proportion of operation³⁰². All companies interviewed stated that cabotage made up less than 5% of their total operation, however a German haulier indicated that this was much higher on their Polish and Czech vehicles, as much as 24%.³⁰³

Some Member States have introduced additional legislative measures that operators undertaking cabotage must comply to. In the Netherlands, all cabotage work must have an accompanying waybill issued by the Dutch authority Stichting Vervoeradres³⁰⁴. In terms of sanctions, for example, fines for illegal cabotage in UK are approximately €300, in France the fine is €15,000. Additionally, it may be that enforcement authorities are unclear to which rules apply to cabotage³⁰⁵.

9.5 Industry Opinion

Cabotage divides opinion both between Member States and types of operators. Notably, responses to the High Level Group's questionnaire highlighted respondent's reaction to the May 2010 rule changes regarding cabotage. This indicated that just over half thought the changes were not valuable to them. Furthermore, respondents indicated that the current cabotage rules limited the flexibility of hauliers and increased the administrative burdens on them.

The High Level Group question found that the major criticisms of the current rules are the perception that the rules are difficult to control or check and that there is a lack of harmonisation in enforcement. This is seen both in level of sanctions and documentation required.

Some hauliers find that the checking and organising that cabotage requires in order to be carried out restricts how much they can feasibly undertake³⁰⁶. A Polish haulier interviewed by the AECOM study team found that the insurance premiums for cabotage loads were prohibitive and this limited the amount they could conduct.³⁰⁷ These issues are discussed further in the Task B Report.

Haulier interviews and the High Level Group questionnaire responses show a divide between countries who wish to protect their domestic market from the perceived negative effects of cabotage and those that wish to conduct greater amounts of cabotage. This divide is not exclusively between EU-15 and EU-12 members as many Dutch hauliers expressed support for further liberalisation of cabotage.

The interviews conducted by the AECOM study team identified that the majority of complaints³⁰⁸ regarding cabotage and the use of foreign drivers taking work from local hauliers, relate to the cost difference between caboteur and domestic hauliers, quality of service and the language ability of drivers.

Consultation undertaken as part of this study demonstrates that illegal cabotage does take place, however there is a lack of information on the size of the problem and who is conducting it. For example, Danish operators have been observed operating in the UK illegally and seemingly outside the scope of the cabotage rules. Complaints have been raised that they are carrying out UK domestic operations for months on end without returning to Denmark³⁰⁹. This was observed in the heavy haul market, particularly relating to the movement of wind turbine parts. Illegal cabotage operations have also been observed in Denmark, conducted by small hauliers subcontracted to larger European hauliers, it is thought that these vehicles do not leave Denmark. In addition Hungary has seen illegal cabotage operations conducted by Polish, Slovakian and Romanian hauliers³¹⁰. A French

³⁰² Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰³ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰⁴ Netherlands General Freight Transport Information, 2011, *Croner*

³⁰⁵ Study on Cabotage in the Road Freight Industry, 2006, *DG Tren, European Commission*

³⁰⁶ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰⁷ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁰⁸ Haulier interviews conducted by AECOM (Opinion of haulier/company, different opinions may exist)

³⁰⁹ Newsletter – Heavy Talk – Unlawful Cabotage in the UK, 2010, *Heavy Transport Association*

³¹⁰ Interview, Hungarian Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

haulier felt that smaller hauliers operating cabotage in France were less likely to be compliant with the law³¹¹. However, this haulier also confirmed that it was very difficult to ascertain the true extent of operations by foreign drivers or vehicles in France.³¹²

There are reports of illegal cabotage, for example the UK Vehicle and Operator Services Agency (VOSA) released figures, via a freedom of information request, indicated that 230 drivers had been fined for breaking the three movements in seven days rule in the 13 weeks following the changes in 2010. However the UK Road Haulage Association claimed that this was a “tiny” figure and felt illegal cabotage was a far greater problem.³¹³

9.6 Effect of Cabotage on Domestic Markets

Whilst cabotage operations can help hauliers to improve their fleet and vehicle efficiency and also help manufacturers and exporters reduce costs, it can have a negative impact on domestic road haulage markets. Not only do foreign hauliers exert market influence by capturing market share from domestic operators³¹⁴, but their very presence in the marketplace can also depress haulage rates on particular routes which in turn squeeze profit margins for domestic hauliers. Caboteurs are able to offer lower rates than domestic hauliers since they are either improving their margin on an already profitable international journey or taking advantage of a lower cost base through lower fuel costs or taxes in their ‘home’ state. Thus, profit margins for domestic hauliers are reduced when haulage companies are forced to accept worse ‘terms and conditions.’

The Burns Inquiry³¹⁵ reported on the effect of cabotage on the UK market in terms of the environmental costs, the accident costs, and the survival of smaller companies operating vehicles in the hire and reward sector. The report claims that although there are short term benefits of this lower operating cost base offered by foreign vehicles for manufacturers and exporters there needs to be a balance with the displacement caused. The smaller companies are being hit directly by these lower cost vehicles.

The Burns Inquiry report makes reference to North European companies from the Netherlands and Belgium, operating through ports with East European drivers working at up to 40-50 per cent lower wage rates than local operators. In addition to this, lower new vehicle prices offer further advantages making the foreign operators extremely competitive. Also a two tier level of enforcement seems to be apparent in which foreign vehicles appear to be able to avoid the higher levels of UK safety standards with an increasing number operating outside the scope of the UKs O-licensing system. It seems to be more difficult to deal with foreign drivers because of language barriers and the limited sanctions currently available. In the past foreign lorries made a zero tax contribution whereas a UK vehicle faced a tax bill of £21,834. However, there is now a vignette system in place to combat this which is a form of road pricing imposed on vehicles, usually in addition to the compulsory road tax. These are used in Austria, Bulgaria, Czech Republic, Hungary, Moldova, Romania, Slovakia, Slovenia and Switzerland. Finally a rapid rise in fuel prices of about 20 per cent requires a 6% fuel surcharge which is not being recouped.

³¹¹ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³¹² Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³¹³ VOSA figures as reported by Commercial Motor Magazine, 2010,

³¹⁴ Increasing fuel prices and market distortion in the domestic road haulage market – UK, 2007, Heriot Watt University

³¹⁵ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

Case Study – Under-cutting haulage rates in England (Source AECOM study tour of manufacturing plant, 2011)

A well known Car Manufacturer in England contracted its inbound haulage to a Top 10 UK based haulage business with a good international reputation. The contract covered all internal UK movements of parts and some international trips. The contract was based on a haulage rate of £1.30/km per articulated vehicle movement in the UK. A well known Eastern European “hire and reward” haulage company was occasionally used for certain international loads. The latter quoted for not only more international work which they won but also domestic UK work and won half of all the internal movements within Britain with a haulage quote of £1.10/km. In order to fulfil this they based over 20 vehicles registered in Eastern Europe in the UK and rotated the vehicles and staff. They did not have a proper operating centre and worked out of a transport cafe in a portable building on a secondary trading estate. The drivers did not know when they would next return to their homeland as many were used on international work across Europe.

9.7 Addressable Cabotage Market

The High Level Group has conducted some initial research aimed at attempting to quantify the size of the addressable cabotage market under the existing cabotage rules. The most common goods moved during cabotage are those ideally suited to transport in a standard curtain sided articulated vehicle such as general cargo. Based on analysis of French Transport Ministry statistics nine divisions of goods were identified as potential cabotage markets.

Products that are moved as part of cabotage are:

- Agricultural products
- Building materials
- Raw minerals
- Food & drink
- Chemical products
- General cargo³¹⁶

The total cabotage conducted in each Member State was compared to the size of these nine divisions within the hire and reward market. This identified that 96% of Luxembourg’s contestable cabotage market is already being cabotaged. Belgium and Denmark’s contestable markets were 30.5% and 16.1% cabotaged respectively. Eleven Member States were between 11.5% and 5% cabotaged and a further 11 Member States were between 4% and 1% cabotaged. Only Bulgaria and Cyprus were below 1%.

The Luxembourg calculation may be explained by the comparatively small hire and reward market and geographical location. With regards to other Member States these figures indicate that there is considerable room for growth in the cabotage.

This analysis however is just one way to consider the addressable cabotage market. There are other limiting factors, for example cabotage is limited by the amount of international trips entering a Member State since each vehicle is limited to three internal movements. It may be the case that in some Member States the amount of international transport is limiting the cabotage market.

9.8 Barriers to Cabotage

As discussed above, Member States have interpreted the cabotage law differently hence access for foreign HGVs to cabotage markets can be made more difficult.

Some Member States use the opportunity presented by the European Commission’s preference to adopt the ‘minimum standards’ of a particular field of legislation to adopt more stringent domestic laws. For example, some Member States have used

³¹⁶ Study on Cabotage in the Road Freight Industry, 2006, *DG Tren, European Commission*

road user charging of HGVs as an indirect method of restricting or limiting cabotage (although it must be noted that this is only a part of the road user charging debate). The existence of road user charging regimes in some territories and not in others clearly creates an uneven playing field and the absence of charging in a Member State provides the opportunity for predatory cabotage. This is particularly so where the caboteur can avoid incurring fuel duty in the host country by running on 'imported' fuel. Directive 2011/76/EC³¹⁷ amending Directive 1999/62/EC³¹⁸ on the charging of heavy goods vehicles for the use of certain infrastructures provides a structure for the implementation of road user charging on the 'user pays' and 'polluter pays' principles. In theory this will reduce the attractiveness of predatory cabotage since spending more time or driving further will incur higher costs. In addition Directive 2003/96/EC³¹⁹ on minimum levels of fuel tax which helps to reduce differences in levels of excise duties.

Differences between Member States' vehicle weights and dimensions also indirectly restrict cabotage. This is because local laws are usually economically better than the minimum standards required by EU law and hence can discourage competition from foreign hauliers³²⁰. For example, countries where Longer Heavier Vehicles (LHVs) up to 60t such as Netherlands and in Scandinavia are permitted, it means that domestic vehicles would be more efficient than vehicles used for international transport, hence limiting the potential for cabotage in those markets. However, it should be noted that the flexible nature/interoperability of the design and operation of the European Modular System does mean that in participating Member States the additional trailer modules can be attached to an international vehicle for a domestic journey.

There is a need to clearly communicate what the rules will be in the future as in the past cabotage rules have lacked clear definition³²¹. This lack of clear definition has caused individual Member States to introduce various restrictions³²². There are many grey areas with the current cabotage regulations, for example, it is unclear whether a non-Austrian truck taking a load from Vienna to Innsbruck, both in Austria, but taking the most direct route, through Germany, is performing cabotage or not.

Furthermore, the cabotage rules preclude a haulier from serving a customer even 1km over the border. Particularly in smaller states this can close off markets for haulage companies that could otherwise be accessed. The issue of border area cabotage was discussed as part of the HLG Shipper and Forwarder Hearing. Were a cabotage border distance limit to be introduced the consensus was that it would need to be more than 100km to be of real value, CLECAT, the international freight forwarders association suggested that a 2-300km would be needed.

These ongoing issues of cabotage interpretation and control are further examined in the Task B Report on the State of the EU Road Haulage Market.

9.9 Removal of Cabotage Barriers

It is a stated EU ambition to completely remove the restrictions around cabotage³²³. It could be questionable whether there will be political will to provide the extension of cabotage freedom from 2014 onwards as the Member States requested cabotage restrictions in the first place³²⁴. Therefore any system for controlling cabotage must ensure that unfair competition is limited and cabotage is used to improve efficiency rather than aggressively undermine domestic markets.

³¹⁷ Directive 2011/76/EC - amending Directive 1999/62/EC of the European Parliament and of the Council of 27 Sep 2011 on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 269, 14.10.2011, p. 1–16*

³¹⁸ Directive 1999/62/EC of the European Parliament and of the Council of 17 June 1999 on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 187, 20.7.1999, p. 42–50*

³¹⁹ Directive 2003/96/EC of 27 Oct 2003 - restructuring the Community framework for the taxation of energy products and electricity, *OJ L 283, 31.10.2003, p. 51–70*

³²⁰ Road Transport in EU Overview, 2009, *International Transport Forum*

³²¹ Study on Cabotage in the Road Freight Industry, 2006, *DG Tren, European Commission*

³²² IRU Response to the EU White Paper "Roadmap to a Single European Transport Area – Towards a comprehensive and resource-efficient transport system", 2011, *International Road Transport Union*

³²³ White Paper – Roadmap to a Single European Transport Area, 2011, *European Commission*

³²⁴ IRU Response to EU White Paper "Roadmap to a Single European Transport Area – Towards a comprehensive and resource-efficient transport system", 2011, *International Road Transport Union*

Experience has shown that reducing the barriers to the movement and activities of freight can lead to increased efficiency as operators can find loads for part of the return journey to or to another location where a return load is available. This can reduce empty running³²⁵ and increase driver productivity³²⁶.

Previous studies have identified that some transport professionals in Germany are concerned that there are companies that are not anticipating the effects of the removal of cabotage³²⁷ and there are similar concerns in France, that French hauliers will experience strong competition³²⁸. During the interviews conducted by the AECOM study team a French haulier stated that even if companies did not anticipate the relaxed rules of cabotage, they would soon react and simply hire more drivers who were willing to work for less wages in order to remain competitive, as French drivers would become too expensive to employ³²⁹. Competition between hauliers would become very fierce.³³⁰ There was also a strong feeling amongst some hauliers that they would have to align to the lowest common standards possible in order to remain competitive³³¹.

Some industries, such as the automotive industry, welcome the further liberalisation of cabotage³³². The motor industry is a good example of an industry that experiences periods of very high demand for transportation, this means that using foreign vehicles during peak periods can reduce the need to have vehicles underutilised for the rest of the year. In discussion with Commission officials it has been explained to the AECOM study team that some countries, such as Ireland do indeed relax the cabotage rules for the automotive industry during periods of high demand.

An interviewed company mentioned that relaxing cabotage rules would allow them to do more loads in countries like the UK and Spain as it would make visiting those countries more economically attractive³³³, whilst other companies have mentioned that relaxing cabotage rules would not affect their operations³³⁴. Other views expressed by interviewed hauliers included the assumption that if foreign vehicles were allowed to operate for greater periods inside countries then they would eventually start contributing to taxes through fuel payments³³⁵. This may or may not be valid, depending on the proximity of lower cost fuel supplies.

Finally, in its response to the EU White Paper Roadmap to a Single European Transport Area – Towards a comprehensive and resource-efficient transport system, the International Road Transport Union (IRU) stated that whilst the 2010 cabotage rule changes represented a step in the right direction as they removed some of interpretation problems, a further relaxation of the rules could lead to re-instatement of barriers and restrictions put up by some Member States³³⁶.

9.10 Concluding Remarks

Cabotage is one of the most contentious issues in road haulage in the EU as many see it as an essential method of improving efficiency whereas others consider the negative effects on domestic markets as unacceptable. Analysis has shown that the vehicle, tax and fuel are considerably more harmonised than driver costs across the EU. Low labour costs can lead to a so called “race to the bottom” in labour standards; this can have a negative impact on society and does not necessarily lead to optimum

³²⁵ Transport at a Crossroads, 2009, *European Environment Agency*

³²⁶ Recommendations on how to Manage Driver Shortages, 2010, *European Chemical Transport Association*

³²⁷ Bulletin on Transport Policies and Strategies in Europe – Issue 18 Road User Charging, 2006, *CNT*

³²⁸ International Road Freight Transport in France – Driver Cost Analysis, 2008, *Lumière University*

³²⁹ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³⁰ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³¹ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³² ACEA Comments on Roadmap to a Single European Transport Area White Paper, 2011, *ACEA*

³³³ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³⁴ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³⁵ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³³⁶ IRU Response to EU White Paper “Roadmap to a Single European Transport Area – Towards a comprehensive and resource-efficient transport system”, 2011, *International Road Transport Union*

use of resources. However, there are safeguards in place relating to minimum wage requirements to limit this and there are also positive effects resulting from these low labour costs such as further market integration and job creation in Member States where increases in activity takes place. Another positive impact is that transport operators have to find other ways to improve efficiency in order to remain competitive and this can only be a good thing for the environment.

Whilst the true impact of the 2010 rule changes on cabotage have yet to be determined, it seems apparent that cabotage operations, either through planned work schedules and strategic choices, or on a more ad hoc basis, have become a firm feature of the EU road haulage market. Responses to the HLG questionnaire have shown a mixed reaction to whether the changes have been useful to them and indeed some two-thirds suggested that that current regime actually limited flexibility and efficiency.

Without full liberalisation of the market, the addressable cabotage market will remain limited in most instances to traffic suited to carriage by standard international freight vehicles. However, the volume of cabotage operations has increased substantially in the last 10 years and we anticipate that this trend will continue, from around 19.7 billion tonne/km today to possibly 27 billion tonne/km by 2020.

Whilst legal cabotage operations can help hauliers to improve their fleet and vehicle efficiency, it can have a negative impact on domestic road haulage markets. Not only do foreign hauliers exert market influence by capturing market share from domestic operators, but that their very presence in the marketplace can also depress haulage rates on particular routes which in turn squeeze profit margins for domestic hauliers. Many of our haulier interviewees recounted instances of alleged illegal cabotage operations and indeed the current rules do seem to present enforcement challenges and can easily be flouted by those operators intent on operating outside the current limitations.

Efforts to harmonise social costs should reduce the cost advantage enjoyed by EU-12 hauliers to some extent and this would reduce the proportion of cabotage they perform. However, the overall cabotage trend is likely to continue as this offers hauliers from both new and old Member States an opportunity to improve margins and efficiency. The ongoing issues of cabotage control and future possible cabotage policy scenarios are explored in more detail in Tasks B of the study.

10 Road User Charging

10 Road User Charging

10.1 Introduction

This chapter sets out the findings of the data collection task, specifically data regarding road user charging (RUC) within the EU.

10.2 EU Road User Charging Policy

10.2.1 Charging of Heavy Goods Vehicles Directive

The Directive on the charging of heavy goods vehicles for the use of certain infrastructures (Directive 1999/62/EC³³⁷) which was amended in 2006 (Directive 2006/38/EC³³⁸) and further amended in 2011 (Directive 2011/76/EC³³⁹) was introduced to create a road charging regime across the EU that allows HGVs to operate across borders. To this end it requires that tolls or user charges applied by a Member State do not discriminate, either directly or indirectly, between domestic and foreign road users. In particular:

- It must be possible to pay a user charge (i.e. a vignette type charge allowing a vehicle to use road for a set period of time) at a wide range of outlets, 24 hours a day
- If on board units are required to pay users charges or tolls these units must be available to all road users on “reasonable administrative and economic arrangements”
- User charges must be proportionate to the duration of use made of the infrastructure i.e. there must be a short term charge available to temporary users from outside the Member State

The Directive also imposes the principle of “user pays” and “polluter pays” on Member States who introduce road charges. EU directives on HGV charging state that EU states can levy distance based charges to recover the costs of infrastructure, construction, maintenance and operation. In addition tolls can be varied according to the level of emissions of a HGV, as measured by its “EURO” emission class. Directive 2006/38/EC represents the first step towards taking account of external costs. It will allow a greater variation in tolls to reflect congestion, and toll variations to reflect the pollution caused by vehicles will be mandatory from 2010. It also makes provision for Member States to be able to increase tolls with a “mark-up” on roads in particularly sensitive mountainous regions to account for noise pollution and emissions. The income from these mark-ups must be used to fund alternative transport infrastructure.

The EU has adopted Directive 2011/76/EC which allows Member States to internalise the costs related to air pollution and/or noise pollution caused by heavy goods vehicles (external costs). They will thus be authorised to integrate in tolls levied on heavy goods vehicles an amount corresponding to the cost of the air and noise pollution due to traffic.

Member States should allocate the revenue received in this way to projects relating to the sustainable development of transport. The directive states that external cost charges where possible shall be collected through electronic systems. The Directive covers not only trans-European transport (TEN-T) networks, but all motorways, and will apply to vehicles of over 3.5 tonnes. If a Member State wishes to grant exemptions for vehicles of up to 12 tonnes, then it must notify the European Commission of the reasons why. In exchange, Member States are required to invest the financial equivalent of 15% of overall revenue in TEN-T networks. The remaining amounts should be used to reduce damage to the environment and develop all transport systems sustainably. Lorries with the least-polluting engines will be exempt from air pollution charges until 1st January 2014 (EURO V emission class), and until 1st January 2018 for EURO VI. In sensitive and mountainous regions, the existing “mark-up” of up to 25% may continue to apply and may be added to the external costs charged for lorries in the heaviest pollution classes (EURO 0 to II). It may also be extended to the EURO III class from 1st January 2015. The revenues from the mark-up must be invested in

³³⁷ Directive 1999/62/EC – of the European Parliament and of the Council of 17 June 1999 on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 187, 20.7.1999, p. 42–50*

³³⁸ Directive 2006/38/EC - of the European Parliament and of the Council of 17 May 2006 amending Directive EC/62/1999 on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 157, 9.6.2006, p. 8–23*

³³⁹ Directive 2011/76/EC - of the European Parliament and of the Council of 27 September 2011 amending Directive EC/62/1999 on the charging of heavy goods vehicles for the use of certain infrastructures, *OJ L 269, 14.10.2011, p. 1–16*

financing the construction of priority projects of European interest which are on the same corridor as the road on which the mark-up applies.

10.3 Current Situation

At the time of writing 21 Member States have some form of road charging in place, as well as non Member States Switzerland, Norway and others (e.g. Turkey, Morocco, Serbia, Croatia). Others will put some in place soon (Russia, Belarus, FYROM). Papers suggest that charging policy throughout the EU varies significantly with tolling principles, implementation methods and structures changing from country to country. Broadly, there are four methods that Member States have adopted. These are:

- Network wide electronic tolling
- Vignettes
- Concession tolls
- Nothing

Studies have noted that some degree of convergence exists with regard to the intention to apply the principal of marginal cost pricing however such convergence is slow. The Figure below shows the type of method each Member State has adopted and how there is a general trend of convergence towards network wide electronic tolling.

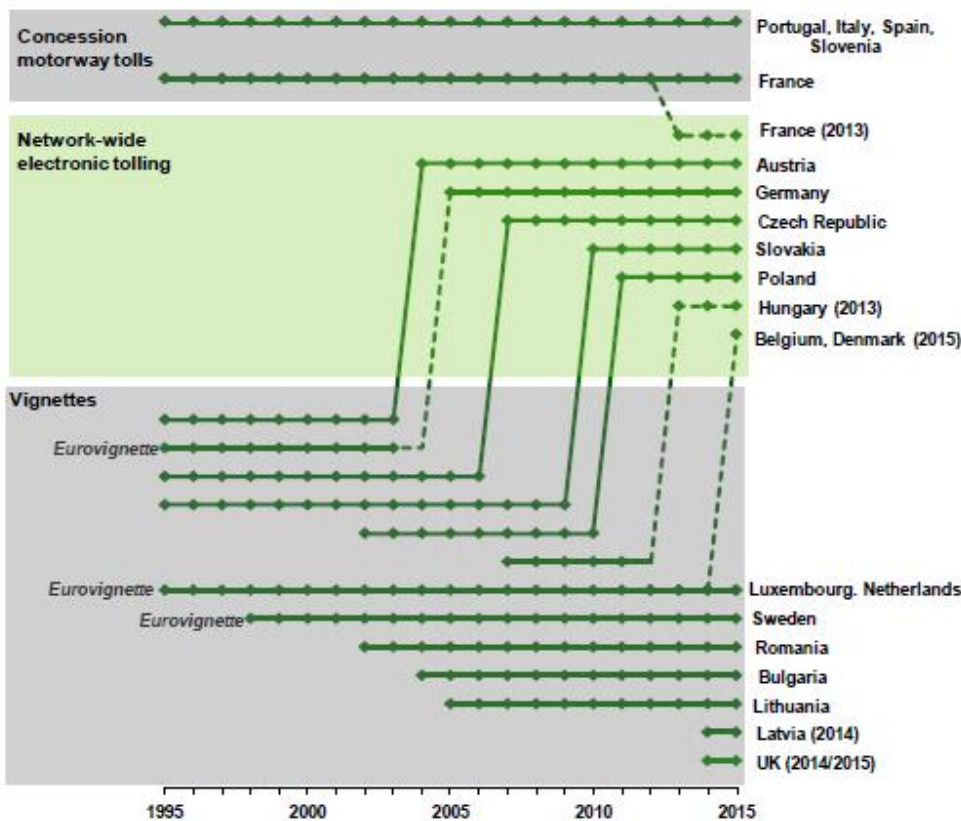


Figure 10.1 – Development of Road Infrastructure Charging Systems in Europe 1995-2015³⁴⁰

³⁴⁰ Evaluation of the Implementation and Effect of EU Infrastructure Charging Policy since 1995, 2013, Ricardo-AEA

However even within these categories of charging systems, differences can be found. For example, the German Maut only charges HGVs over 12t GVW yet Directive 2006/38/EC makes provision for vehicles over 3.5t GVW to be charged. In fact 15 of the 21 countries charge vehicles over 3.5t GVW and other than Germany the only other countries charging on 12t are those on the Eurovignette, Belgium, Denmark, the Netherlands, Luxemburg and Sweden.

The existing charging regimes have been observed to be far from internalising external costs and rarely based on efficiency principles. In addition to differences in the tolling policy of EU states there are also differences in legislative frameworks and political structures. Political commitment is crucial to the success of Road User Charging (RUC) schemes, experience has shown that implementation needs to be in line with the electoral cycle and that implementation should be lead from a regional/national level to avoid conflicts between local authorities.

Most Member States (14 of the 21 with a charging system) now differentiate charges by Euro emission class. This usually entails the older, lower Euro emission classes being charged more with the newer, higher Euro emission classes being charged less. Those Member States that do not vary the charge are usually those with large networks of concession motorways as concessions existing before 2008 are exempted from the requirement to vary tolls until the end of the concession period.

Freight Industry bodies have expressed concerns with the EU Directive, mainly that the 'user/polluter pays' principle should be applied to all road users and rail and not only to HGVs. These bodies have suggested that rather than utilising HGV charges to subsidise other modes, the efficiency of all modes should be improved with more emphasis put on co-modality. It should be noted however that in terms of freight traffic, German studies suggest that only 10% of freight could utilise an alternative transport mode for the journey. These bodies, however, do welcome the restructuring of charging to take account of vehicle emissions. The restructuring of charges based on emissions will lead to a number of changes in the industry including;

- Increased efficiency of operations
- Improved utilisation of vehicle capabilities/fleets
- Environmentally focussed fleet investments

Any EU wide RUC schemes should ensure fair competition between local and overseas hauliers and between all haulage companies irrespective of size.

It is widely accepted that in the majority of cases the existing HGV charges on roads do not cover the social costs imposed by those vehicles. Studies undertaken by the EU have concluded that marginal cost based pricing of roads results in the benefits being distributed to the majority but the costs being concentrated on the minority. Studies have suggested that inequities with regard to charging are more likely to occur due to "horizontal" factors such as location, demography and transport needs rather than from "vertical" factors related to income. The same studies suggest that potential methods to reduce inequities include modifying scheme design, revising charge structure/exemptions and by using revenues to provide alternatives and complementary policies.

The use of RUC revenues is seen as being critical in determining the acceptability and effectiveness of the scheme. Drivers will need to see revenues being put to good use in improving roads, alternative transport and complementary policies. In Germany, revenues from the 'Maut' system have been used to fund training schemes, vehicle improvements and finance infrastructures. All Member States, except those belonging to the Eurovignette agreement, earmark the revenues at least in part to transport. In the case of the Eurovignette, revenues go to the general budget.

10.4 Country Based Examples – Trials and Impacts

10.4.1 State of the EU

There are numerous methods of applying road user charging; single point, multi point, cordons, area based, however there is increasing evidence that distance based charging is the most efficient especially on a national basis. Distance based charging can be implemented in a number of ways including automatic number plate recognition using fixed cameras, short range sensors together with tags or Global Navigation Satellite System (GNSS) based. GNSS based systems do not require on site devices (except in the case of enforcement) and allow the full network to be included in the charging system. As already revealed a

number of Member States (21) already make use of the Directives in order to charge HGVs. This is shown in the following table and discussed below.

Charging System	Member States
Vignettes (9)	Belgium, Bulgaria, Denmark, Hungary, Lithuania, Luxembourg, Netherlands, Romania and Sweden
Network wide tolls (5)	Austria, Czech Republic, Germany, Slovakia and Poland
Concession tolls (7)	France, Greece, Italy, Portugal, Spain, Slovenia, Ireland and Poland

Table 10.1 Types of Charging System by Country

10.4.2 Austria

Austria has a network wide system of tolls which was introduced in 2004. The toll covers all HGVs over 3.5t GVW (as per the EU Directive) and also includes buses and coaches. Euro engine standard was included in 2010 to differentiate the charges and the use of motorways, express roads and tunnels are charged for. A vignette also exists for vehicles over 3.5 t.

10.4.3 Belgium

Belgium has had a vignette system in place since 1995 which applies to HGVs over 12t GVW. The vignette covers the motorway network as well as certain national roads. Since 2001 the vignette has differentiated between Euro engine standards.

10.4.4 Bulgaria

Bulgaria introduced its vignette system in 2004 prior to joining the EU in 2007 ("Eurovignette"). The vignette is charged for the use of all inter-urban roads and all goods vehicles are charged, even those under 3.5 GVW. In 2008 the vignette differentiated between Euro engine standards.

10.4.5 Cyprus

Cyprus does not have any nationally led tolls.

10.4.6 Czech Republic

The Czech Republic has had a system of network-wide tolls since 2007 whereby prior to that it used the vignette. It charges goods vehicles over 3.5t GVW for the use of its motorways and express roads. The system differentiates between Euro engine standards. A vignette also exists for vehicles over 3.5 t.

10.4.7 Denmark

Since 1995 Denmark has had a vignette charging system for all HGVs over 12t. This system charges for the use of the motorway network and some national roads. In 2001 Euro engine standards were used to differentiate costs ("Eurovignette").

10.4.8 Estonia

Estonia does not have any nationally led tolls.

10.4.9 Finland

Finland does not have any nationally led tolls.

10.4.10 France

France has had concession based tolls for a long time on its motorways, bridges and tunnels that include all vehicles. In 2013 France will introduce a network-wide system on state-operated motorways and other roads for HGVs.

10.4.11 Germany

Since 2005 Germany has had a network-wide toll (Maut) on HGVs 12t GVW or greater. Prior to 2005 Germany used the vignette system ("Eurovignette"). Originally Germany had its Maut on its motorways but after owners sent their HGVs on diversions to avoid the paying the tolls the network was expanded to some of national road network to discourage this practice.

10.4.12 Greece

Greece has employed concession tolls on its motorways before the original Directive. It is paid by all vehicles.

10.4.13 Hungary

Hungary has a vignette which it has used since 2000. The vignette is charged for use of some sections of the motorways, highways and primary roads and covers all road vehicles.

10.4.14 Ireland

Ireland has used concession tolls since before the original Directive was introduced. These tolls cover the use of the motorways and the national roads by all vehicles.

10.4.15 Italy

Italy has used concession tolls since before the original Directive was introduced. These tolls cover the use of the motorways and some tunnels by all vehicles.

10.4.16 Latvia

Latvia does not have any nationally led tolls.

10.4.17 Lithuania

Lithuania introduced its vignette in 2005 and it covers all freight vehicles (including those under 3.5t GVW). This vignette is required to use the main roads A1-A18 and is differentiated by Euro engine standards.

10.4.18 Luxembourg

Luxembourg has applied vignettes on HGVs of 12t GVW or greater since 1995 ("Eurovignette"). This vignette is required to use the motorway network and certain national roads. In 2001 the vignette was amended to differentiate between Euro engine standards.

10.4.19 Malta

Malta does not have any nationally led tolls

10.4.20 Netherlands

The Netherlands does not have any nationally led tolls.

10.4.21 Poland

The Polish system that started in July 2011 is called Viatol and uses a Viabox. Even though the cost of the box is eventually recovered once returned, the capital cost is high as all the vehicles need equipping with the units and some units can cost €100 fitted. Then the box information has to be analysed and then this is compared with the invoices. This is a big administration issue but needs to be done. There have been some teething problems with the Polish system making some mistakes. Certain concession motorways also have a manual payment system for all vehicles.

10.4.22 Portugal

Portugal has used concession tolls since before the original Directive was introduced. These tolls cover the use of the motorways. In 2010 electronic tolling was introduced on previously free motorways (so-called SCUT motorways). Portugal is considered to have a concession tolling model although the network is now fully subjected to electronic tolls as some motorways still have physical barriers.

10.4.23 Romania

Romania has had a vignette system since 2002 and this includes all vehicles that wish to use all inter-urban roads. The vignette differentiates between Euro engine standards.

10.4.24 Slovakia

In 2010 Slovakia introduced its network wide tolling system, replacing its previous vignette. This charged all HGVs over 3.5t GVW to use highways, expressways and some first class roads. It differentiates between euro engine standards. The vignette remains for vehicles under 3.5t GVW.

10.4.25 Slovenia

Slovenia has used concession tolls since before the original Directive was introduced. These tolls cover the use of the motorways and most expressways for HGVs over 3.5t GVW. In 2010 the system differentiated between Euro engine standards. A vignette also exists for vehicles over 3.5 t.

10.4.26 Spain

Spain has used concession tolls since before the original Directive was introduced. These tolls cover the use of the motorways by all vehicles, although only a minor share of the motorway network is covered.

10.4.27 Sweden

Sweden has had a vignette system since 1998 which is applied to HGVs over 12t GVW ("Eurovignette"). The vignette is required in order to use the motorway network and certain national roads. In 2001 the vignette differentiated between Euro engine standards.

10.4.28 United Kingdom

The United Kingdom has currently no nationally led tolls. But the HGV Road User Levy Act became law on 28th February 2013 and will be introduced in April 2014. The vignette type levy will be a time-based charge of up to £1,000 a year or £10 a day and will apply to lorries weighing more than 12 tonnes, using UK roads and the amount varies depending on the gross weight of the vehicle.

10.4.29 Switzerland (non Member State)

The Swiss scheme was introduced in 2001 following a national referendum and combined an increase in maximum vehicle gross weight, from 28 to 40 tonnes, with the new distance and vehicle type charge. Overall, this has led to fewer vehicle kilometres in relation to predicted growth. Transalpine figures show that since 1990 of 160% growth in terms of tonnes only an increase of 30% in vehicles resulted. Since the scheme was introduced, there has been a fall in Transalpine vehicles of 16%, but 40% more tonnes are being carried. Rail's share of this traffic in particular has grown as fast as road. It should also be noted that the EU cooperation with the scheme was partly because the Swiss 28 tonne limit was believed to be causing diversions through Member States. Some traffic did return to Swiss Transalpine routes, but the charge ensured that this was not excessive and that vehicles were used efficiently. Income from the Swiss scheme is considerable and is being used to support major new transalpine rail freight capacity.

10.5 Interoperability

The need for interoperability of systems was illustrated by the views of a Polish company visited during the consultation. They are mainly involved in international haulage and said that there is urgent need to harmonise the range of charging systems across Europe both for road tolls and congestion charges in order to make the systems interoperable. The need to have several charging boxes in the cab is complicated and creates unnecessary levels of bureaucracy. The company has to employ several administrators to look after this issue. The vehicles typically have black boxes for Germany, France, Czech Republic, Poland, and Slovakia and in addition to that if the trucks go to Italy then the drivers use a viacard credit-card for payments. Like many international hauliers they are keen for full interoperability.

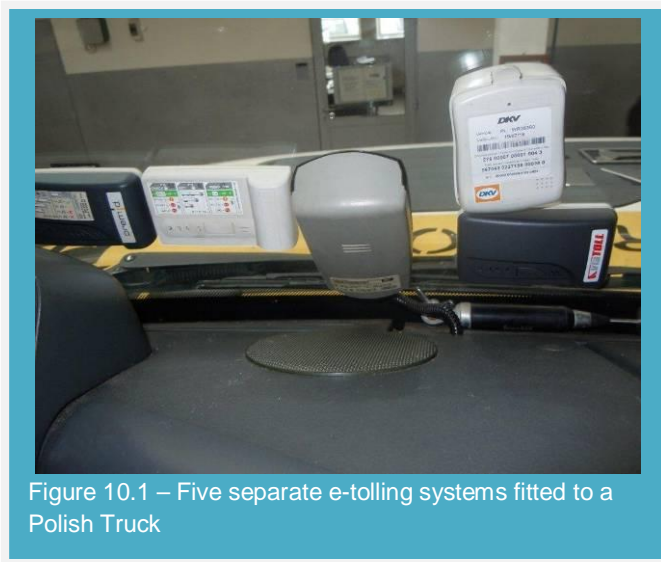


Figure 10.1 – Five separate e-tolling systems fitted to a Polish Truck

Directive 2004/52/EC³⁴¹ (and the related Directive 2009/750/EC³⁴²) was adopted to ensure the interoperability of electronic road tolling systems across Europe. Therefore, the Directive required that a European Electronic Toll Service (EETS) be established whilst Directive 2009/750/EC went on to define the EETS. The main objective of the EETS was to reduce administrative burdens and costs by streamlining the process for the payment of tolls. Any tolls implemented under the Eurovignette Directive that require onboard equipment fall under the scope of Directive 2004/52/EC. Full details can be found in the technical rules regarding electronic tolling³⁴³.

There have been delays in implementing the EETS. These have been named as:

- Limited number of projects in the EU to introduce electronic tolling
- Full scale tolling schemes in Member States tend not to be introduced until successful pilot schemes have been completed
- Member States have a reluctance to discard their existing national systems

However a number of countries have successfully worked to make their systems interoperable. The following systems are considered to have some interoperability.

10.5.1.1 France's TISPL and Norway's AutoPASS

These systems both use DSRC (5.8GHz) European standard and the OBUs are compatible with the systems of both countries.

10.5.1.2 Germany's TOLL2GO and Austria's ASFINAG

These systems require users to pay for road use in both countries via one OBU based on a combination of DSRC and satellite technologies. However the toll operators have separate contracting and invoicing services.

10.5.1.3 EasyGo Service in Norway, Sweden and Denmark

The EasyGo service allows HGVs in Norway, Sweden and Denmark to use the same toll collection systems and OBUs.

10.5.1.4 Italy's Telepass

Italy's Telepass DSRC technology is not compatible with other systems however a dual mode OBU has been developed and it capable of working with other Member States' systems.

The HLG questionnaire conducted by the European Commission found that nearly 90% of industry respondents felt that the multiplicity of charging systems represented a problem. The reason that multiplicity is a problem was identified as the lack of interoperability between different Member States systems and the different charging principals employed by Member States. One haulage company stated an opinion that "There is no EU interoperability at all. Only a one-sided German/Austrian combination and cooperation between Spanish and French road operators are in operation now."

There appears to be a consensus from the industry that the current charging systems for use of roads by lorries are not suitable. The use of both time and distance based charging, lack of interoperability between Member States' systems, different charging methodologies and lack of clarity on the use of revenue are all cited as major issues. 75% of respondents to the High Level Group questionnaire indicated a preference towards distance based road user charging. However, some peripheral countries suggested that they could be penalised by such a scheme given their hauliers have further to travel to international markets. There are mixed views on how such a charge should be used: purely for infrastructure use or whether it should include environmental impact and congestion impacts. Road haulage and shipper representatives prioritise use of infrastructure as the most important cost whilst providing some support for environmental and congestion issues. Small businesses and social

³⁴¹ Directive 2004/52/EC - of the European Parliament and of the Council of 29 April 2004 on the interoperability of electronic road toll systems in the Community (Text with EEA relevance), *OJ L 166, 30.4.2004, p. 124–143*

³⁴² Directive 2009/750/EC - of the European Parliament and of the Council of 6 Oct 2009 on the definition of the European Electronic Toll Service and its technical elements

³⁴³ http://ec.europa.eu/transport/modes/road/road_charging/technical_rules_en.htm

organisations suggest that any charge should include all of these issues. The most urgent need according to hauliers is to obtain a universal interoperability of systems.

The lack of interoperability results in operators who wish to conduct international haulage having to invest in numerous payment devices “black boxes” in order to comply with road user charges, increasing the cost and limiting the flexibility for hauliers.

10.6 Concluding Remarks

There is a clear and recognised problem with the current road user charging systems in place. The lack of interoperability between systems and differences in charging principles cause increased burdens for hauliers and administrators and represents a clear barrier to what could be described as a harmonised road charging system.

Having said that, a distance based charging system is generally accepted as an ideal solution in the long term, this type of system also receives the most support from industry as it is recognised as the fairest way to charge vehicles. Furthermore, distance based schemes have shown to be the most effective in reducing empty running and vehicle kilometres. Finally, any road user charging system should ensure fairness and transparency for goods vehicles and other road users. The results described above show the range of different road charging systems in place across Member States and the problems that this causes. These are in addition to the issues arising from different levels of road user charges in different Member States. Although there has been some convergence in the level of road user charges, significant differences remain between Member States. The issue is explored in more detail in Task B.

11 Drivers and Staff

11 Drivers and Staff

11.1 Introduction

This chapter focuses on driver shortages and the standards and levels of training in the driving sector.

The issue of driver shortages has been extensively investigated and it has been identified that the causes of driver shortages lies with a multiplicity of factors³⁴⁴. These include socio-economic, demographic, work attractiveness, qualification and skills requirements. Similarly, driver training can be a significant forward investment for organisations, one that can be perceived unwarranted where driving skills are so transferrable. The HLG included the topic of driver shortages in its questionnaire. 75% of respondents concluded that there was a shortage of drivers.

11.2 Background

Driving shortages and skills are key issues facing the industry. It is generally considered that there is a shortage of drivers in the EU³⁴⁵. In 2008, this driver shortage was estimated to be just fewer than 75,000 throughout the EU³⁴⁶ which is thought to be 3.8%³⁴⁷ (number of vacancies against the total number of jobs). Growth in employment in the road freight industry has increased quite rapidly over the past decade and its rate has outstripped the European average³⁴⁸. The subject of driver shortages is well documented by reports produced for the European Commission, by private businesses, industry press, academics, non-governmental organisations as well as AECOM's consultation. While the recent global economic downturn has reduced the short term demand for transport; shortages are still reported across much of Europe³⁴⁹:

- In Germany authorities report a 30% shortfall
- In Switzerland they forecast the need for 25,000 new drivers within 10 years (for a total population of 70,000)
- In Belgium, 36% of the transport operators have difficulties in hiring drivers
- In the UK, it's predicted there could be as much as a 30% shortfall in the number of qualified drivers of vehicles over 3.5 tons before 2014
- In France, due to an ageing driver population, it is expected that 20% of the workforce will have to be replaced within 10 years – this represents 131,000 drivers

Driver shortages have progressively become endemic across Europe although its impact has not occurred simultaneously and with the same magnitude in all of the Member States³⁵⁰. It is interesting to note that driver shortages are occurring in Eastern European Member States including Poland³⁵¹, Lithuania³⁵² and Slovakia³⁵³. Whilst some of the reasons for the shortage occurring are similar to Western Member States, Eastern Member States have an additional factor which is to do with driver salaries. The EU promotes freedom of trade and movement hence there cannot be restrictions on where a driver is employed. This allows drivers from Eastern European Member States, to move to a Western European Member State where a typical driver's wage is much higher and be employed by a company there³⁵⁴. This economic migration is an additional reason why Eastern European Member States are experiencing driver shortages with Poland having a shortage of 30,000 in 2007³⁵⁵.

³⁴⁴ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁴⁵ Road Transport Working Time Directive Self Employed and Night Time Provisions, 2006, *DG Energy and Transport, European Commission*

³⁴⁶ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁴⁷ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁴⁸ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁴⁹ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁵⁰ Greece: First Review Under the Standby Arrangement, 2010, *World Bank*

³⁵¹ The Impacts of the 2004 Enlargement in the Area of Transport, 2007, *DG Tren, European Commission*

³⁵² Analysis of Professional Drivers' Training System in Lithuania, 2011, *Vilnius Gediminas Technical University*

³⁵³ SWOT Analysis of the Slovak Republic, 2008, *Chemlog*

³⁵⁴ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

³⁵⁵ The Impacts of the 2004 Enlargement in the Area of Transport, 2007, *DG Tren, European Commission*

There are measures in place that intend to provide a framework for this migration to happen in a fair manner, in practice this can lead to levelling of wages. Where differences exist in minimum wages migration will occur as drivers move to different Member States that provide a higher minimum wage in order to attain a better standard of living. In the long term, this migration of drivers from one Member State to another may have an indirect effect on the harmonisation of minimum wages across Member States. In order to fill the shortage of drivers a Member State will have to make the terms of contract more appealing in order to attract drivers. One way it could do this would be to increase the minimum wage to match that of a nearby Member State. This could halt the migration of its nationals and solve the problem of driver shortage.

11.3 Effects of Driver Shortages

Whilst the average labour cost may increase, it appears that some companies do not find employing suitable drivers an issue. Several hauliers interviewed during the process indicated that they paid above the market rate for drivers and as a result, did not have a problem recruiting drivers^{356,357}. Other companies who were paying at the market rate had a number of open vacancies for drivers that they were struggling to fill.³⁵⁸

Although driver shortages should in theory increase salary demands, this in general does not always happen. Margins are already tight within a highly competitive industry which could be a reason why salaries are not rising as quickly as one might expect. The European Parliament Report on driver shortages highlighted that the road freight sector has a high turnover of staff, particularly in the long haulage sector³⁵⁹ and salary may be a strong contributory factor towards this. This report also identified that workers moving to other EU countries in search of higher wages contributed to one company turning over 45% of its drivers in one year as drivers move to countries within the EU that offer higher salaries³⁶⁰.

The difficulty of attracting new drivers has been felt in Ireland with four in 10 companies experiencing such difficulties³⁶¹. Aside from increasing wage demands, this has affected the ability of businesses to expand³⁶². Furthermore, in their recommendations on how to manage driver shortages, the European Chemical Association stated that without available drivers, the ability of hauliers to meet service expectations of their customers is threatened³⁶³. This could have consequences for a highly performance reward based industry.

³⁵⁶ Interview, Polish Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁵⁷ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁵⁸ Interview, German Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁵⁹ Shortage of Qualified Personnel in Freight Transport, May 2009, *DG for Internal Policies, European Parliament*

³⁶⁰ Shortage of Qualified Personnel in Freight Transport, May 2009, *DG for Internal Policies, European Parliament*

³⁶¹ Freight Transport Report for the Island of Ireland, 2008, *Inter Trade Ireland*

³⁶² Freight Transport Report for the Island of Ireland, 2008, *Inter Trade Ireland*

³⁶³ Recommendations on How to Manage Driver Shortages, 2010, *European Chemical Transport Association*

Case Study – The Need to Address Driver Shortages, AECOM Haulier Interview

A Haulier stated that transport represents around 10% of GDP in Poland (Government statistics state that passenger and freight transport account for 9.2% of GDP in 2009) so the sector is economically important and it was felt that the government should support the industry. There is 13% unemployment across the country and there are hotspots at 20-25% due to the loss of traditional mining or manufacturing industry jobs. Unemployment is worse in the east of the country than the west. Driver shortages is a real problem in Poland and the company had lorries parked in the yard without drivers but was having to give work to contractors. Many companies have vacancies and this situation has existed for almost two years now. It can cost around €2,500 to obtain the necessary driving licences for a lorry. There are insufficient driving schools and there are not enough people being trained. There is no government help towards this training. Some drivers do not like the lifestyle living away from home for long periods with having to sleep in the cab. The company would like to see Government support for training, to establish new driving schools and also encourage more apprenticeship schemes.

11.4 Causes of Driver Shortages

The following section outlines the causes of driver shortages. They can be grouped into regulatory, skills and social change.

Regulatory

- Lack of Military Service
- Working Hours Legislation

Skills

- Employee/Employer Skills Gap
- Employee Upskilling

Social Change

- Type of Work
- Sector Demographics
- Sector Attractiveness

11.4.1 Regulatory

Lack of Military Service

One of the main sources of trained drivers in many countries came from the military, which provided driver training through national service.³⁶⁴ Since this has been rescinded in many countries, there has not been another source of training identified to replace this. The current costs of obtaining a heavy goods vehicle licence are about €3,000 which as a rule have to be met by the 'would be' driver prior to obtaining employment in the sector³⁶⁵. A government funded scheme has been started in Denmark to train lorry drivers if they have been unemployed for a long period of time, this is discussed in more detail in Section 11.4, but, from our findings, this is unusual across Europe.³⁶⁶

Legislation

The introduction of various measures in EU legislation has in fact affected employment levels in the road freight industry³⁶⁷. Rulings on access to market, minimum standards for driving, working and resting periods and the establishment of a uniform form of evidence for driver competence has seen these measures exert direct influence on the labour demand and the supply of drivers. Regulation (EC) No 561/2006³⁶⁸ stipulates the maximum number of hours a commercial driver can work for before mandatory rest periods. In addition, this must be considered against the Road Transport (Working Time) Directive³⁶⁹. The industry still considers the Working Time Directive to be a contributory factor towards driver shortages³⁷⁰. This is because restricting the number of hours a driver could work can limit overtime and productivity. This has led to the need to employ more drivers (10-15% extra in the chemical logistics industry)³⁷¹, drivers which, as has been established, are not readily available. It must be conceded that the true impact of any legislation on the driver shortages is not easily and clearly quantifiable³⁷². That said, although there is a recognised shortage of drivers, there has yet to be any legislation from the EU that would help to alleviate the issue³⁷³.

11.4.2 Skills

Employer/Employee Skills Gap

There appears to be varying levels of driver shortages that relate to how skilled the driver is. At the highly skilled end of the road haulage market, there appears to be an issue with being able to recruit people with the correct skills. The European Parliament report on driver shortages identified the important point that driving a freight vehicle is now a highly demanding profession as it has long since developed from a simple driving activity into a far more standardised and codified logistics service³⁷⁴. It is not clear that wages and working conditions have increased in line with the demands on drivers. In the UK, the lack of supply of qualified drivers is pushing up labour costs³⁷⁵. This was confirmed in an interview with an operator which mentioned 'there tends to be more of a shortage of drivers where special qualifications are needed'³⁷⁶. Some companies are reluctant to train their drivers³⁷⁷

³⁶⁴ Interview, Danish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

³⁶⁵ Report of the High Level Group on the Development of the EU Road Haulage Market, June 2012, European Commission

³⁶⁶ Interview, Danish Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

³⁶⁷ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁶⁸ Regulation (EC) No 561/2006 – of the European Parliament and of the Council of 15 March 2006 on the harmonisation of certain social legislation relating to road transport, *OJ L 102, 11.4.2006, p. 1–14*

³⁶⁹ Directive 2002/15/EC - of the European Parliament and of the Council of 15 March 2006 on the organisation of the working time of persons performing mobile road transport activities, *OJ L 80, 23.3.2002, p. 35–39*

³⁷⁰ Recommendations on How to Manage Driver Shortages, 2010, *European Chemical Transport Association*

³⁷¹ Recommendations on How to Manage Driver Shortages, 2010, *European Chemical Transport Association*

³⁷² Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁷³ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁷⁴ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

³⁷⁵ 2011: A Long Hard Road Ahead for UK Haulage Industry, 2011, *Novadata*

³⁷⁶ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

because training is usually a cost for the company to bear and the fear is that the driver will complete their training and then leave³⁷⁸. This lack of training provision is ultimately a self fulfilling prophecy of a shrinking pool of employable drivers. This results in a labour mismatch where the competences and skills required by firms does not tally with those offered by the majority of workers³⁷⁹, with the job posting continuing to be listed as vacant.

Employee Up-Skilling

Work intensity is also cited as a factor as a reason for why people are leaving the industry. No longer is it suitable for an employee to be a “driver”, they are an integrated part of a supply chain, delivering a transport service. This results in a job which is more complicated and demanding³⁸⁰. This has led to increased intensity and with it, an increased potential for stress³⁸¹. Modern logistics operations sometimes require use of the Just-In-Time principle which allows for minimal error. Additional time pressure has been created by the Drivers' Hours regulations which restrict the number of hours driven. Increased work intensity can make a job less attractive. Additionally, the increase in the level of responsibility and number of deliverables has not borne witness to an increase in salaries³⁸².

11.4.3 Social

Type of Work

Truck driving operations are generally split into domestic and international driving. There appears to be driver shortages experienced in some countries for international driving, such as in the Czech Republic³⁸³, Lithuania³⁸⁴ and Slovenia³⁸⁵. This is large part driven by a desire for drivers not to be away from home and family for long periods and to work in the area that they live in.

Sector Demographics

The driver population is aging, 62% of drivers in the EU are over 40³⁸⁶. There is also a shortage of new entrants to replace older drivers. Figure 11.1 gives an example of this based on the experiences of a German Haulier.

³⁷⁷ Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁷⁸ Interview, German Haulier, 2012, AECOM (Opinion of haulier/company, different opinions may exist)

³⁷⁹ Shortage of Qualified Personnel in Freight Transport, 2009, DG for Internal Policies, European Parliament

³⁸⁰ Shortage of Qualified Personnel in Freight Transport, 2009, DG for Internal Policies, European Parliament

³⁸¹ Shortage of Qualified Personnel in Freight Transport, 2009, DG for Internal Policies, European Parliament

³⁸² Shortage of Qualified Personnel in Freight Transport, 2009, DG for Internal Policies, European Parliament

³⁸³ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁸⁴ Analysis of Professional Drivers' Training System in Lithuania, 2011, Vilnius Gediminas Technical University

³⁸⁵ Interview, French Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

³⁸⁶ Eurostat, [bd_9b_sz_cl_r2], 2012, Eurostat

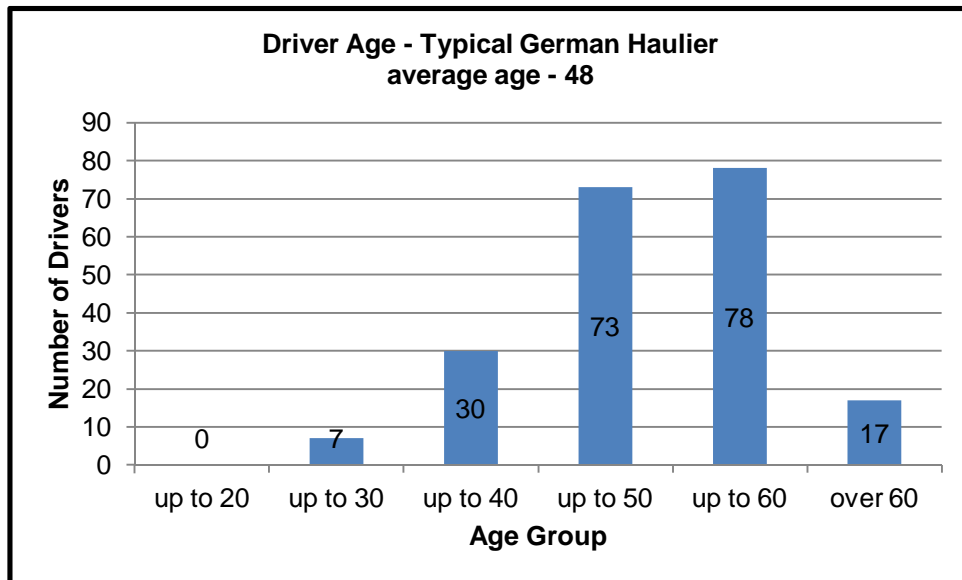


Figure 11.1 – German Haulier Driver Age³⁸⁷

A UK transport training company stated that the lack of new entrants into the industry has meant that the average age of a UK driver has risen to 55³⁸⁸ and research conducted by the European Chemical Transport Association identified that in Germany 30% of drivers are 50 years or older³⁸⁹. One company interviewed by the AECOM study team has started to respond to this by increasing the retirement age of drivers from 65 to 67³⁹⁰, which in theory will alleviate the issue in the short term, however this can only be a stop gap measure as the drivers' ages catch up to the new retirement ceiling. Increasing the retirement age could also bring with it additional problems such as safety and quality issues, as older drivers may not be able to react to developing situations as quickly as their younger peers. An ageing driver population appears to be a serious issue across the EU as Lithuania also mentioned that driver average age is increasing³⁹¹.

Sector Attractiveness

The road haulage industry is not an attractive proposition for many people. It is associated with long periods away from home with long hours, poor conditions and poor remuneration; there is also a lack of clear career progression. Young people are not entering the industry because the industry is not attractive to them, particularly on the social side^{392 393}. Driving a lorry is generally considered to be an unsociable job, there are long hours, working time is not necessarily standardised and drivers can spend long periods away from home sleeping in their vehicle³⁹⁴. This inability to attract 'fresh blood' into the industry³⁹⁵ is becoming a big problem, particularly as new, younger drivers are required to replace existing, older drivers that are approaching retirement. Two of the most important issues to be addressed are described below:

³⁸⁷ AECOM Consultation, 2011

³⁸⁸ 2011: A Long Hard Road Ahead for UK Haulage Industry, 2011, *Novadata*

³⁸⁹ Recommendations on How to Manage Driver Shortages, 2010, *European Chemical Transport Association*

³⁹⁰ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³⁹¹ Analysis of Professional Drivers' Training System in Lithuania, 2011, *Vilnius Gediminas Technical University*

³⁹² Summary of Germany – Market Report, *BAG*

³⁹³ Report of the High Level Group on the Development of the EU Road Haulage Market, June 2012

³⁹⁴ Interview, French Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

³⁹⁵ 2011: A Long Hard Road Ahead for UK Haulage Industry, 2011, *Novadata*

1. Lack of Career Path

There is a lack of an obvious career path which may be discouraging young people to choose driving as a career. The lack of training provision could limit them as it could be considered that a young person would have to put themselves through the relevant training at their own cost. This can be quite expensive as the prospective driver would have to pay for:

- Driver training
- Examinations
- CPC Training

All of which, without funding from a transport operator would have to be funded by the individual. It is not immediately obvious what funding options are available to the individual. As previously mentioned, there are companies that appear to be unwilling to offer training due to the cost and risk involved. Some Member States like the Netherlands are offering an apprenticeship style scheme. The issue of a lack of core training for HGV drivers appears to be a historic and accidental one. Historically, many drivers would gain their HGV driving licenses whilst performing compulsory military service and at the expense of their respective national militaries. Upon being relieved of this compulsory military service, these people would then find employment in the private haulage sector. Many European countries have now abolished compulsory military service and the consequence is that this ready source of young and trained drivers has now disappeared. This training has never really been replaced by a formal education/training course and so the slack created by the disappearance of this source of drivers has not been taken up by an alternative source.

2. Cost of Training

The cost of training is cited as an expense that many employers can't bear, for example it can cost around €3,500 to obtain an initial driver CPC qualification in Germany.³⁹⁶ Employers cannot afford to pay this when there is a risk that drivers could move to another company at any time. Equally, when drivers are younger, they are more likely to be mobile – this further diminishes the return for operators seeking to employ younger staff on an apprenticeship basis. In addition, the attractiveness of the sector is an issue that precludes young people from making front loaded investments in training. The cost of driver training therefore appears to be a significant barrier to entry to the jobs market, with some companies unwilling to bear the cost of driver training³⁹⁷. In order to keep down costs, some less scrupulous hauliers recruit without providing proper training. These companies then compete with reputable companies on cost³⁹⁸.

11.5 Short-Term Responses to Driver Shortages

For the present, the difficult economic situation has meant that the driver shortage problem has been mitigated. Existing job vacancies have been closed without being fulfilled and the rate at which new vacancies appear has been curtailed. This is due to the decreased economic demand for road transport services. There is no inclination that this will continue forever. Transport activity is considered to be closely linked with economic activity. As economic activity picks up, it seems reasonable to think that transport activity will pick up with it and then the driver shortages issue will return to prominence.

³⁹⁶ Cieca 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 or passengers, 2010, *IRU*

³⁹⁷ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

³⁹⁸ Interview, Dutch Haulier, 2011, *AECOM* (Opinion of haulier/company, different opinions may exist)

CASE STUDY – Using Polish Staff to Address Driver Shortages and Competitiveness, AECOM Haulier Interview

A medium sized general haulier based in Humberside, England, addressed two problems, that of driver shortage and secondly cost competitiveness with competitors by employing Polish drivers. The company went to a recruitment agency with an office in Poland and arranged interviews with a number of drivers. The selected staff moved to England where they were paid the minimum wage plus expenses and provided with a shared house to live in. Four drivers were accommodated in each terrace house and this was part of the remuneration. The drivers were also given a free flight back to Poland every four months. The package amounted to around £8/hour in overall payments and this was significantly more than the new staff would have earned in Poland. This compared with a wage of about £12/hour for English drivers. This was accepted by the English drivers as there had been unfilled job vacancies and it meant the company could continue trading competitively. This is legal in the UK as there are few collective agreements still in place and as long as the minimum wage is paid then this is acceptable.

11.6 East to West Migration

The economic crisis of 2008 and ensuing recession collapsed the demand for truck drivers. However, now that the economy is showing signs of recovery and demand is approaching levels of those seen in 2007 the industry is presented with a shortage of truck drivers across the EU. This is detailed in the EU report on driver shortages³⁹⁹. The intensity of the shortage, i.e. the amount of driver vacancies in proportion to the total number of employed professional drivers, has been recorded as particularly high in many EU countries, such as the Netherlands, France, Poland, the Czech Republic, Portugal and Spain as shown in Table 11.1. The shortage has progressively become structural across Europe, although its impacts have not occurred simultaneously and with the same severity and magnitude in all EU Member States.

Country	Estimated number of drivers	Assumed shortage ratio	Estimated driver shortage
EU-27	1,960,000	3.8	74,480
Belgium	44,157	3.6	1,590
Czech Republic	72,360	5	3,618
France	244,269	2	4,885
Germany	216,646	3.3	7,149
Italy	237,585	3.9	9,266
Poland	157,366	5	7,868
Portugal	45,361	4.6	2,087
Romania	53,492	3.2	1,712
Spain	275,160	4.5	12,382
The Netherlands	86,065	4.8	4,131
United Kingdom	208,061	0.7	1,456

Table 11.1 - Estimated Driver Shortage in 2008⁴⁰⁰

³⁹⁹ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

⁴⁰⁰ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

The report outlines that the road freight transport sector is a major employer in the EU (around 2.8 million persons in 2006). Employment in this sector has been increasing at a faster rate than total employment, but is markedly differentiated across EU Member States, being particularly significant in the New Member States and in those countries where the initial employment was lower.

The report also mentions that the accession of the EU-12 Member States has extensively contributed to the changes in the overall sector in Europe as well. The completion of the internal market, the stronger economic growth of the new Member States and the increase in the specialisation of the production processes, inducing larger flows of goods, have led to an increased demand for freight transport in general. It has also led to greater differences in labour costs across the Member States, with the risk of downward pressure on wages, and to stronger competition.

The causes of the driver shortage are mainly due to a considerable and steady increase in the demand for freight transport by road and especially of long-distance haulage. However, it also mentions that there are a number of other factors influencing these shortages namely; lack of attractiveness of profession, the negative image of the sector and of drivers, the changing skill needs determined by organisational and regulatory changes in the sector, and the ageing of the workforce in the sector which implies the exit of skilled and experienced workers.

11.7 Driver Training

Drivers' skill levels were infrequently tested and not continually proven. In 2003 the EU enacted a directive requiring all professional drivers to undergo regular accredited training relating to their work. Directive 2003/59/EC⁴⁰¹ introduced the 'Driver Certificate of Professional Competence' (Driver CPC), which all professional drivers of goods vehicles, buses, coaches and minibuses will eventually be required to hold. In each member state, a variety of training courses have been accredited to the Driver CPC, including such topics as legal requirements on drivers, safe loading of vehicles and in many cases some form of eco-driving training.

Cost estimates for CPC compliance vary but the CNT Observatory on Transport Policies and Strategies in Europe estimates that compulsory training is about €2,000 per employee⁴⁰². Switzerland, despite not being in the EU has adopted similar legislation regarding the CPC and the training has been designated 'Eurocompatible'⁴⁰³.

Driver Certificate of Professional Competence requires that professional road drivers complete 35 hours of training over five years, and that new drivers are required to have completed this. In the UK, the current shortfall in the number of training hours completed by those required to undertake Driver CPC is likely to exceed five million training hours by the end of 2011 and it is predicted there could be as much as a 30% shortfall in the number of qualified drivers of vehicles over 3.5 tonnes before 2014.

11.8 Addressing Qualification and Training

There appears to still be a need to ensure that transport professionals are highly trained in both the technical and regulatory aspects of their job⁴⁰⁴. 62% of road haulage workers in Spain have only a primary education⁴⁰⁵ which is considered the norm throughout Europe. The proportion of workers holding secondary or tertiary level diplomas is only half that of the national average in Spain⁴⁰⁶. The general need for training is acute, but half of firms are not taking any action on the issue⁴⁰⁷.

⁴⁰¹ 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, *OJ L 226, 10.9.2003, p. 4–17*

⁴⁰² Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

⁴⁰³ Bulletin on Transport Policies and Strategies in Europe – Issue 18 Road User Charging, 2006, *CNT*

⁴⁰⁴ Social Dumping in the ECMT Area – Road Haulage Case, 2002, *European Conference of Ministers of Transport*

⁴⁰⁵ Road Freight: An Important Sector with Three Strategic Challenges: Internationalisation, Intermodality and Innovation (El Transporte de Mercancías por Carretera: Un Sector de Peso con Tres Retos Estratégicos: Internacionalización, Intermodalidad, Innovación), 2006, *CETMO Foundation*

⁴⁰⁶ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

⁴⁰⁷ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

Most drivers have compulsory driver qualifications as a result of taking tests which allow them to drive different classes of vehicle. However the routes to qualification vary from country to country and indeed, sometimes within the country. For example in Lithuania the 'classroom based' training programme of a driver for international carriage/forwarding is of two years for students with secondary education and of three years for students with basic education.⁴⁰⁸ Another way to become a professional driver is to choose an educational institution linked to 'on the job' training. There are seven registered 'labour market' programmes that are designed for professional training of drivers and cover the acquisition of initial professional qualification, periodic training and the extension of initial qualifications⁴⁰⁹. Addressing Differing State and Company Aims.

An analysis of routes to professional qualifications for truck drivers is provided in Section 4.5 of the Task B Report. Governments and regulators will necessarily mandate vocational competency requirements whereas transport operators prefer to provide specific training to keep their personnel⁴¹⁰. This conflict of interest could help to explain why many transport operators and drivers have a lag in completing their Certificate of Professional Competence (CPC).

11.9 How to Combat Driver Shortages

The literature researched suggests that driver shortages should and can be tackled. Proposed measures to address driver shortages should be built on a holistic, coordinated and targeted approach directed at both the demand and supply side with coherent and coordinated effort at all institutional levels⁴¹¹. Specific measures to address driver shortages should be targeted at the following main issues:

- The improvement of the sector image
- The attractiveness and working conditions should be improved
- Women's participation should be increased
- Skills and qualifications should be improved
- The logistics and organisation of road transport firms should be improved⁴¹²

In addition to the above, the HLG⁴¹³ is of the opinion that:

- 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
- 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

⁴⁰⁸ Analysis of Professional Drivers' Training System in Lithuania, 2011, *Vilnius Gediminas Technical University*

⁴⁰⁹ Analysis of Professional Drivers' Training System in Lithuania, 2011, *Vilnius Gediminas Technical University*

⁴¹⁰ Bulletin on Transport Policies and Strategies in Europe – Issue 22 Employment and Training, 2008, *CNT*

⁴¹¹ Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

⁴¹² Shortage of Qualified Personnel in Freight Transport, 2009, *DG for Internal Policies, European Parliament*

⁴¹³ Report on the High Level Group on the Development of the EU Road Haulage Market, 2012, *European Commission*

Case Study: Country Examples of Training

Many examples of driver training in the various member states have a focus on energy-efficient driving as a means of CO₂ reduction. These certainly seek to protect the profitability of the employers and the societal benefit of less intrusive HGV driving styles – but they do not seek to address the specific skills gap that employers demand. There remains a gap between, obtaining the minimum standard (licence and DCPC) and that driver gaining the experience and training to transfer technical knowledge and apply it to a service based environment.

Denmark Driver training concerning HGVs is regulated by the EU directive 2003/59/EC which is implemented in national regulation.

Finland At the moment the only existing national HGV regulation regarding driver training and ecodriving is based on the directive on the initial qualification and periodic training of drivers of certain road vehicles. The periodic training (35 hours every five years) based on the Directive 2003/59/EC shall have at least 7 hours of proactive driver training, which contains both traffic safety and eco-driving elements.

Hungary Evaluation and modification of Regulation 60/1992. (IV. 1.) —Fuel and lubricant consumption rates for vehicles, agricultural, forestry and fishing engines]] – affects all vehicle categories in Hungary. The Regulation 60/1992 (modified in 2010) has financial incentives for more efficient driving for all categories of HDVs (and LDVs). The Association of Hungarian Highways Freighters (MKFE) plans to impose such training on drivers for fuel efficient driving.

Sweden Fuel efficient driving is mandatory in driving training and theory for all vehicle classes to get a driving licence.

United Kingdom Although not currently compulsory, the UK Government encouraged bus and coach drivers in England to take up fuel efficiency training by funding a Safe and Fuel Efficient Driving (SAFED) demonstration scheme and publishing case studies. The UK Government recently consulted on options to increase the uptake of such training among drivers of HGVs, including whether it should become a compulsory part of a bus driver's Certificate of Professional Competence (CPC).

Because the Driver CPC applies to both HGVs and PCVs, the consultation also considers the possibility and implications of making the eco-driving training a mandatory part of the Driver CPC for both categories of driver. The result has been not to make eco-driving training compulsory, but to review the voluntary take up of this training in 2012.

A scheme in the Netherlands places drivers in an apprentice style scheme which almost guarantees employment⁴¹⁴. However apprenticeships typically require young candidates at the beginnings of their career. In Germany, the number of applicants for apprenticeships has been dropping significantly⁴¹⁵.

⁴¹⁴ Interview, Dutch Haulier, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

⁴¹⁵ Summary of Germany – Market Report, BAG

Case Study – Using Polish staff to address driver shortages and competitiveness, AECOM Haulier Interview

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11.10 Cross-border employment of drivers

Following the gradual liberalisation of the road freight market across Europe, concerns have been raised about unfair competition created by the employment of drivers based in lower-cost countries. The issue of large companies using self-employed drivers to avoid protective legislation and other costs was raised in the High Level Group hearings. There are concerns that a large pool of foreign workers inevitably forces down pay and conditions. In some debates the term social dumping has been used. Social dumping is frequently cited to arise where there is trade in any good or service between Member States with differing conditions of employment – but the concept has no universal definition amongst industry commentators. It is debatable whether the term dumping should be applied to labour at all as it is difficult to sell labour below cost. However, one useful definition of social dumping is that used by the European Foundation for the Improvement of Living and Working Conditions (“Eurofound”). Eurofound defines social dumping as “the practice of exporting goods from a country where costs are artificially lower to gain an unfair advantage in international trade”. In this context the term “goods” includes the provision of services across borders.

The Eurofound definition of social dumping does not specify what it considered an “artificial” difference in costs. A practical approach to define this could be the following. Where a Member State has a cost advantage in the production of a certain good or service it is clearly to the advantage of EU as a whole if firms in that Member State can supply the good or services throughout the single market. However it would not be acceptable if firms that did not provide a minimum level of labour conditions and social protection to their employees were able to export to other Member States other than their “home” Member State, capturing market share from firms that offer acceptable levels of labour conditions and social protection.

The fragmented structure of the road haulage sector makes it difficult to separate innovative practises and increased productivity from unethical or even illegal activity that may constitute the use of lower cost labour. The majority of allegations of the use of lower cost labour that emerged in the interviews undertaken for this project related to road hauliers in a relatively high cost Member State employing workers from another Member State or from outside the EU at lower than normal wages. In some cases this activity is in breach of existing employment laws.

CASE STUDY – Illegal operations in Poland, AECOM Haulier Interview

A Polish operator reported that several hauliers in Poland are employing drivers from other countries and turning a blind eye to employment documentation and thus saving money. They are undercutting rates by around 30% and it is impossible for them to be offering these rates legally. Examples of Polish operators included employing drivers from Romania, and Bulgaria and the rates of pay could be 50% less than that paid to Polish staff. Similarly there are people employed from Ukraine and Belarus who work for even less money than this and of course this practice is outside the law.

Measures to protect driver' working conditions, in particular the Road Transport Working Time Directive, are considered to have increased costs within the industry but have offered greatly improved conditions for drivers as well as significant improvements in road safety. However, there is anecdotal evidence that social protection measures are being avoided, both legally and illegally. The following points are particularly relevant:

- The provisions of the Road Transport Working Time Directive, and the enforcement activity taking place to secure its enforcement around the EU;
- The "Posting Directive" and its role in the protection of working conditions for freight drivers;
- The role of self-employed drivers in the sector, and the potential use of such drivers to undermine protections for the working conditions of freight drivers.

The details of the Road Transport Working Time Directive and the Posting Directive are explained in Chapter 3.4, whereas the issue of bogus self-employment is explored in more detail in Chapter 8.7. It would appear that the legislation applicable to working time of drivers, posted workers and self-employed workers is not always playing its role in safeguarding working conditions of drivers. The interpretation and application of the Posting Directive is variable across Member States. As the Directive only applies under certain conditions it is therefore not its aim to provide a general framework for all EU-citizens working out of their home country, nor can it provide an answer for all of the social issues in the road haulage sector. In turn the proportion of drivers that are self-employed varies widely between almost none in Latvia to almost half of all drivers in Cyprus.

Amongst some players in the road haulage sector there is a perception that due to these differences, some aspects of competition are unfair, and potentially even illegal. The available evidence suggests that there is at least the potential for such activity in the absence of harmonised practises and improved enforcement. However, the only general certainty with regard to much of the competitive activity in the market is that much of it is legal if unpopular in certain quarters.

Applying the principle of the Posting Directive to international road haulage (regardless of the conditions of scope of the Directive) could help to address these concerns. This would involve finding a mechanism to ensure that when drivers who come from a low cost Member State are working in a high cost Member State (either as part of an international road freight operation or while carrying out cabotage in a "high cost" Member State) that they receive extra remuneration or expenses to make up the difference between driver costs in the two Member States. This would reduce the cost advantage enjoyed by hauliers from "low cost" Member State in carrying out international road haulage and cabotage operations. This in turn would reduce the concern that the cost advantages enjoyed by road hauliers from "low cost" Member States were artificial and that trade based on these cost differences was not socially and economically beneficial.

11.11 Concluding Remarks

The shortage of drivers is a fundamental problem in the road haulage sector in the EU. The economic meltdown of 2008 and ensuing recession collapsed the demand for truck drivers. However, now that the economy is showing signs of recovery and that demand is approaching levels of those seen in 2007, the industry is presented with a shortage of truck drivers across the EU. There are a number of factors influencing these shortages namely; lack of attractiveness of profession, the number of qualified drivers available and high average driver age.

Policy measures have sought to build on minimum legal requirements through training (Driver CPC), however, this alone is not fulfilling the ambitions of a new 'Supply Chain Service' focussed industry, nor is it generating the job benefits that may induce new employees. While the Working Time directive has sought to improve safety within the sector, the industry still perceives it as a barrier to activity and a limit to the higher remuneration of its drivers, similarly, with national service having been rescinded the pipeline of new drivers looks increasingly limited against an aging driver population.

To address the issues, training must reflect the needs of the employers while achieving wider Member States' objectives, but crucially, must seek to address the issue of driver training funding for new recruits – either through apprenticeship, or through an alternative funding mechanism. Ultimately perhaps, as in the past the market will supply sufficient drivers to meet the needs of

the sector, which itself will respond to market forces with improved working conditions and productivity. Instead the barrier to focus on is not of the supply of drivers by the supply of skilled, productive and safe drivers.

Finally, mechanisms could be considered to address the perceived unfair competition that arises from the employment of drivers from lower cost countries in higher cost countries. While legal safeguards exist to ensure that drivers working outside of their country of residence benefit from good working conditions, there is anecdotal evidence that social protection measures are being avoided, both legally and illegally. Applying the principle of the Posting Directive to international road haulage (regardless of the conditions of scope of the Directive) could help to address these concerns, but would require a change of legislation.

12 Vehicle Specification

12 Vehicle Specification

12.1 Introduction

European standards exist that cover a large number of technical aspects including the weight, size and emissions of vehicles. Regulation (EC) No 1230/2012⁴¹⁶ on type-approval of motor vehicles applies to all new vehicles put on the market in the EU, and amends the previous system in place since 2007 which already introduced an EU type-approval system, in addition to national type-approval standards. Directive 1985/3/EC⁴¹⁷ sets weight and dimension standards for vehicles used on international transport. The weights and dimensions in Annex I are binding in national and international transport, unless Member States decide to amend them in national transport (and then only under certain conditions). Member States are still free to set different limit values for vehicles engaged in domestic haulage operations. Examples of differences are discussed later in this chapter.

12.2 Vehicle Productivity

Hauliers constantly seek ways of increasing vehicle productivity. This can be done by increasing the number of loads per day, improving the vehicle fill, and improving the vehicle planning. We discuss the use of technology in the next chapter and there are plenty of case studies available showing operational changes that can be made. One of the step changes operators can make is to double shift vehicles and work with the customer base to persuade them to accept night deliveries. Typically vehicles can be used for customer deliveries during the day and night trunking between distribution centres at night. The positive reasons for this include the economic factors with using a truck efficiently and it means that the vehicle will cover a large mileage in a short space of time and hence reach natural obsolescence (and so be replaced) much quicker than a single shift vehicle. The positive thing with this is that the newer replacement vehicles are less polluting.

Another efficiency measure is to reduce the proportion of empty running which typically is running at about 25% of total movements. A well-known UK operator, Stobart, claim in their 2010 brochure, that as a result of various efficiency measures including computerised vehicle planning, load consolidation and shared user protocols they have cut empty running to just 15%.

The clever use of shift patterns can ensure vehicles are on the road as much as possible. Haulier interviews conducted as part of the study revealed that an English company specified three drivers to two trucks and rotates the staff to ensure that the vehicles are scheduled every day on a seven day rolling pattern. A Polish company again specified three drivers to two trucks on international work and the drivers work away from the country for up to 20 days. Then the drivers have up to ten days off. It means the vehicles only return to Poland every three weeks for a driver change. The drivers will have used their driving hours fully for this period and importantly the trucks are used intensively.

Another method of increasing vehicle productivity is by improving on the vehicle fill rate. A publication by the Chalmers University of Technology in Sweden⁴¹⁸ explores ways in which this can be achieved. Findings from the publication included increasing consolidation, changing the packaging in order to increase stackability and stowability and changes in vehicle and handling equipments. No remarkable change in the fill rate levels can be foreseen in the close future however, unless an external force outside the company, such as regulations, makes new incentives for all parties involved in transportation, to review their operational strategies. Increasing fuel prices and making the share of transportation cost higher in the total price of products, might help in this regard to encourage all parties to perform more efficiently.

12.3 Vehicle Replacement Policy

Eurostat provides data on vehicle age which indicates that the age of vehicles particularly in the EU-12 is reducing with their increasing participation in international transport, where it is beneficial to use more recent, cleaner vehicles⁴¹⁹. The three years

⁴¹⁶ Regulation (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council Text with EEA relevance *OJ L 353, 21.12.2012, p. 31–79*

⁴¹⁷ Directive 1985/3/EC – of the European Parliament and of the Council of 19 Dec 1984 on the weights, dimensions and certain other technical characteristics of certain road vehicles, *OJ L 2, 3.1.1985, p. 14–18*

⁴¹⁸ Department of Technology Management and Economics Division of Logistics and Transportation CHALMERS UNIVERSITY OF TECHNOLOGY - Fill Rate in Road Freight Transport, Göteborg, Sweden 2011

⁴¹⁹ [http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Road_freight_transport_by_vehicle_characteristics_\(road_go_ta_agev\)](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Road_freight_transport_by_vehicle_characteristics_(road_go_ta_agev))

old road freight vehicles have dominated the European market in 2011 with around 255 billion tonne-kilometres (almost 15% of the total tonne-kilometres). Vehicles five years old or less accounted for over 60% of the total tonne-kilometres with those over ten years old performing only 13% of tonne-kilometres. Between 2006 and 2010, in tonne-kilometres, there has been a strong decline of nearly 46% in road freight transport performed by vehicles of less than two years old, but this decline has stopped in 2011 when an increase of 11% was registered as compared to 2010. Transport performed by very old road freight vehicles (over 15 years) has decreased between 2006 and 2010 by 29% and has increased by 6% during the last year to represent only 2% of the total tonne-kilometres. Ten Member States had reached the 60% of total vehicle-kilometres threshold for vehicles five years old or less in 2011, of which only two of the Member States that entered EU in 2004 and 2007 (Latvia and Slovenia).

Traditionally, vehicles would be used for three to seven years by larger operators and then these would enter the second-hand market, perhaps for acquisition by small hauliers. If the bigger companies keep vehicles longer this can negatively impact on the second-hand market meaning only older, less reliable vehicles are available. 70% of Own Account operators have changed their approach to vehicle replacement and specification⁴²⁰. This compares with 65% in the Hire & Reward sector⁴²¹.

12.4 National Allowances to Increase Vehicle Weights and Dimensions

12.4.1 Vehicle Specification Rules

Regulation (EC) No 1230/2012⁴²² and Directive 1996/53/EC⁴²³ permit trucks of maximum 16.5m (one point of articulation) or 18.75m (one or two points) in length, 40 tonnes in weight and 4m in height to circulate across European borders. For intermodal traffic, 44t is the maximum. The directive also sets limits for axle loads and overhangs. Countries are allowed to set the maxima at higher levels, but only on their own territory. The modular concept, with limits of 25.25m and 60t, has been in use for years in Sweden and Finland. Several countries have set their maximum load at 44t instead of 40t.

12.4.2 Longer Heavier Vehicles^{424, 425}

Longer heavier vehicles (LHVs) are typically defined as vehicles composed of several standard modules not exceeding 25.25 meters in overall length and 60 tonnes in total. They are currently used in Sweden, Finland and the Netherlands where they are authorised on a permanent basis. They are also being used in certain regions of Denmark, Germany. The UK is currently trialling longer semi-trailers (see Section 12.4.6). A study was commissioned by the Directorate General for Energy and Transport, to investigate the possible effects of changing the



Figure 12.1 – Abnormal load trailer with rear steer axles

⁴²⁰ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

⁴²¹ The Burns Inquiry – Freight Taxes, 2005, *Freight Transport Association*

⁴²² Regulation (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council Text with EEA relevance *OJ L 353, 21.12.2012, p. 31–79*

⁴²³ Directive 1996/53/EC - of the European Parliament and of the Council of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international Traffic, *OJ L 235, 17.9.1996, p. 59–75*

⁴²⁴ Working Group on Longer and Heavier goods Vehicles (LHVs): a multidisciplinary approach to the issue, 2007, *Belgian Road Research Centre*

⁴²⁵ Longer and Heavier Vehicles for freight transport, 2009, *JRC Scientific and Technical Reports*

directive to allow for longer and/or heavier vehicles (LHVs) in international transport. A number of alternatives were suggested, including the modular concept which has several variants and combinations of rigid vehicles, tractor units and semi-trailers⁴²⁶.

Although accepted in certain European countries such as the Netherlands, it is a controversial subject in others. Longer, Heavier Vehicles (any HGV longer than 18.5m (up to 25.25m) or carrying more than 44 tonnes (up to 60 tonnes) have both advantages and costs.

It should be noted that the proposal to revise Directive 1996/53/EC does not propose to extend the use of LHVs, but instead leaves the decision up to Member States. This position has been further elaborated in a clarification from the Commission in June 2012⁴²⁷.

12.4.3 Advantages and Disadvantages Offered by LHVs

It is widely recognised that introducing vehicles such as LHVs will have both positive and negative effects. There has been a good deal of research into this area which has been summarised by a European Commission Report in 2009.⁴²⁸ The main arguments cited as favourable to an increase of dimensions include:

- They can carry more, often whilst staying within existing, standard weight limits for moving high volume goods, thus decreasing operational costs due to greater load factors
- Ease congestion due to the reduction in the number of vehicles required to deliver the same amount of goods with attendant economic benefits
- Decrease of emissions (CO₂, NO_x, PM) and other externalities on a per tonne km basis
- Positive impact on safety as fewer trucks are needed for the same amount of transported goods although there is uncertainty, as it had not been proven that fewer but longer vehicles
- In widespread use would be safer
- Driver shortages as discussed earlier in this report would be partially alleviated

Supporters of the modular concept additionally claim that the flexibility of the system permit its introduction at a marginal investment from transporters. Other concepts state increased loads without any substantial changes to the current setup of the vehicle are possible as well.

The disadvantages used by opponents depend on the specification and technology used on the vehicle but the following are the main points cited:

- LHVs are seen to incur greater wear and tear on infrastructure particularly at road junctions, and bridge infrastructure could suffer greatly
- They are less manoeuvrable; it is very difficult to reverse them, thereby creating a safety implication. LHVs do pollute more as they use more fuel than conventional trucks so it is important that they are well laden
- LHVs are considered to threaten market share of rail and water due to a change in competitive position, which might cause a transfer from rail and waterborne freight back to road. As rail and water are recognised as having superior externality benefits on average this would have negative impact on environment
- Reduced cost will generate more demand and this in turn could cause increased congestion
- If accidents occur, damage could be higher due to increased mass and energy in the vehicle
- Longer vehicles may induce insecurity to the other road users
- LHVs may block junctions due to their length in the same way as bendy buses do
- The current failure of the market to take into account the external costs of road freight could be exacerbated by the introduction of LHVs without any internalization policies

⁴²⁶ Effects of adapting the rules on weights and dimensions of heavy commercial vehicles as established with Directive 96/53/EC, 2008, *DG Energy and Transport, European Commission*

⁴²⁷ <http://ec.europa.eu/transport/modes/road/doc/2012-06-13-kallas-reply-to-simpson.pdf>

⁴²⁸ Longer and Heavier Vehicles for freight transport, 2009, *Joint Research Centre, European Commission*

CASE STUDY

In the Netherlands, the container transport sector took the initiative to start using LHVs. Koos Overdevest (KOV) Vervoer, a transport company from Nootdorp pioneered this initiative and directly participated in the first trial in 2001. The part of the road network that was used for the trial was limited to a number of designated routes. During the first years this route ran from the port of Rotterdam to Bodegraven. Other companies took up the trial shortly afterwards.

LHV companies in the container transport sector indicated that they saved most on driver costs (around 61% of companies made the largest saving) and subsequently on fuel. Savings on fuel costs through the use of LHVs vary between 10% and 15%. The 'other cost items' usually include a combination of driver costs and fuel costs.

12.4.4 44 Tonnes Instead of 40 Tonnes

In terms of vehicles generally used on international movements there is the standard 40 tonnes Gross Vehicle Weight (GVW) which for example for a German operator interviewed allows a payload of 21/22 tonnes in the bulk tankers but 24 tonnes in curtainsiders. The Dutch Trade Association (TLN) is keen to increase gross vehicle weight (GVW) to 44t for international transport as these are allowed in several countries already. As can be seen in Table 12.1 most semi-trailers in use are plated at the maximum weight which has the capacity to carry over 20 tonnes in most countries. This shows that if weight limits are raised there would be a great deal of interest by operators. The net effect of 44 tonnes compared to 40 tonnes to a three tonnes increase in payload as it is much better to spread the additional weight over six axles and there is a weight penalty of about a tonne due to the extra axle.

The 40 tonne limit is binding in international transport with the exception of three-axle motor vehicles with a two- or three-axle semi-trailer carrying a 40-foot ISO container as part of a combined transport operation (Directive 1996/53/EC). Member States may choose to increase the weight limit on their own territory if infrastructure and transport requirements allow it. This has been the case in a number of Member States (including Germany, the UK, France, Italy, the Benelux). However there are concerns about the impact of moving towards 44 tonnes in international transport (either on traditional vehicles or with LHVs) due to possible consequences on infrastructure and modal split. A 2011 study by CER⁴²⁹ looked at the effects of the introduction of LHVs on combined road-rail transport and single wagonload rail freight traffic. Although both are considerable, it stated the intensity of the downward spiral in single wagonload markets could lead to their complete or partial breakdown in specific regions or countries.

⁴²⁹ Study on the Effects of the Introduction of LHVs on Combined Road-Rail Transport and Single Wagonload Rail Freight Traffic – November 2011, CER

	Proportion of Semi-trailers >20T Load Capacity	Year
Czech Republic	55%	2009
Spain	94%	2009
France	95%	2009
Latvia	97%	2010
Lithuania	46%	2010
Luxembourg	98%	2009
Netherlands	89%	2010
Austria	93%	2010
Poland	86%	2010
Romania	95%	2010
Slovenia	99%	2010
Finland	7%	2010
Sweden	95%	2009

Table 12.1 – Proportion of Semi-Trailers >20 Tonnes Payload Capacity⁴³⁰

12.4.5 Double-deck Trailers

Double deck trailers are predominantly only used in the UK as they are one of the few countries that have the infrastructure to accommodate this size of trailer (twenty of the EU-25 countries have restricted height limits set to four metres). The use of double-deck trailers offers one of the best opportunities for improving the efficiency of the UK freight sector but is not applicable for most of Europe. Goods are loaded on two levels rather than one, effectively doubling volumetric capacity per trailer. Double-deck trailers are becoming increasingly widespread, as 3PLs and retailers see them as a viable distribution option. They offer financial benefits as well as a reduction in environmental impacts. Double-deck trailers could be a key contributor towards the UK's commitment to reducing CO₂ emissions towards 2020. There are many different double-deck solutions available, characterised by the manner in which the top deck is loaded or unloaded ranging from hydraulic moving decks to tail lifts and external lifts. A fixed deck trailer typically has the highest carrying capacity of the designs considered, both in terms of weight and volume. However, the use of an external lift means that the trailer is less flexible; it can only deliver to stores which are equipped with lifts.⁴³¹

Double-deck distribution is possible in the UK as there are fewer vehicle height restrictions than in other European countries. Bridges and tunnels offer sufficient height clearances to accommodate double-deck trailers which are typically between 4.8 and 5 meters tall. In contrast, across most of the European mainland, truck heights are restricted to 4-4.2 metres. Lower bridges or tunnels in the UK require detours that can reduce the efficiency of double-deck trailer use. However, minor detours do not significantly impair this efficiency.

Second, the distribution centre should be able to accept tall double-deck trailers. These trailers can be designed to work with specific loading bay heights, and external lifts can be fitted to overcome access problems.

Third, double-deck trailers are often restricted on payload weight as they are heavier than a single-deck, while operating at the same gross weight limit. Double-deck trailers are thus mostly used for the distribution of light goods. In the UK the maximum gross weight for a 6 axle tractor/trailer combination is 44 tonnes. The typical tare weight of the tractor/trailer is 18.5 tonnes, leaving a net payload of 25.5 tonnes. This limits the average weight of each loading unit, such as a roll-cage or a pallet.

⁴³⁰ Eurostat [road_eqs_semitn], 2012, *Eurostat*

⁴³¹ Double-Deck Trailers: A Cost-Benefit Model Estimating Environmental and Financial Savings, 2010, *Heriot-Watt University*

Assuming a double-deck trailer can take 75 roll cages, the average weight of a cage would be restricted to 340kg. If the same trailer took 54 Euro pallets, the average pallet weight would be limited to 472kg. Consequently, double-deck distribution is suitable for loads within certain weight ranges. Retail goods distribution often falls within the efficient range for double-deck trailers; however much will depend on the characteristics of the products carried.

No data is available on the number of double-deck trailers currently running, as it is not required to register trailers in the UK. However, estimates by trailer manufacturers suggest that there are between 7,000 to 9,000 units currently in use in the UK and this number is growing. Evidence of this growth of double-deck trailer use is provided by the Continuous Survey of Road Goods Transport (CSRGT 2010).

Since 2004 the UK Truck survey (CSRGT – Continuing Survey of Road Goods Transport) has asked operators to record truck fill by pallet, so as to measure truck fill by cube and weight. This indicated a 40% cube fill opportunity and as not all products are suitable for double stacking, the double-deck emerged as an option. On a retailer type of application a double deck increases carrying capacity from 26 to 44 pallets, (an extra 69% capacity). But although there is a 20% additional cost of the specialist trailers, there is a potential cost saving of 29% when the additional truck capacity is utilised.

12.4.6 Longer Semi-Trailers (LST) Trials

In January 2012 a trial of Longer Semi-Trailers was launched by the UK Government (DfT). In order to participate in the trial a Vehicle Special Order (VSO) is required to cover each vehicle used in the trial, and this will allow vehicles to be operated only on roads in Great Britain (i.e. England, Scotland and Wales). The DfT has issued 1,800 permits for the ten year trial of two types of longer semi trailers, with demand outstripping supply, particularly for the full length 15.65 metre trailers. Whilst the permits have not been distributed on a one-company one permit basis, the DfT have ensured that the trial is not dominated by the very large companies. The Road Haulage Association (RHA) was keen on a one-company one permit basis to allow a maximum number of companies to benefit from the derogation; however it is satisfied with the approach taken. In the end there are 180 operators named on permits which equates to around ten trucks per operator on the trial. The reality is that there are some large freight companies with significant numbers of permits for example Wincanton (top 5 logistics company in the UK) has 34 permits for 15.65m trailers which provide 15% extra capacity and 34 for the slightly shorter option. This trial in the UK is for up to 10 years and it will be interesting to monitor the success of the slightly longer vehicles however it is thought that small companies can't afford the change that the rules allowed.

LSTs with special permits are also used throughout Germany and 300 have been in operation since the end of 2005. These trailers are manufactured by Kogel and the specific model is known as The Kögel Euro Trailer. This is a semi-trailer which has been extended in length by 1.3 metres and consequently can carry an additional 3 Euro pallets.

12.5 Industry Operations and Practices

Frustration for hauliers who are based in Member States that have amended Directive 1996/53/EC continues when they operate internationally as the same rules regarding vehicle weights and dimensions do not apply. Companies that operate in different countries tend to specify vehicles for particular markets that are then less competitive in other markets, thereby resulting in loss of flexibility and a sub-optimal operation. For example a Dutch haulier might specify a Euro V articulated vehicle on 5 axles to run at 40 tonnes Gross Vehicle Weight (GVW) for the German market to obtain the best Maut rates, whereas an older Euro II or III would be fine for Belgium or France. This effectively means there is regulatory causal effect of a Road User Charging stipulation causing unintended consequences of a much higher proportion of older, more polluting vehicles being used in France and the Benelux countries. As this response to the Maut system was observed in interviews in the Netherlands, Germany and Poland it is safe to presume that most hauliers are sending new trucks on German work and older ones elsewhere. In the case of Poland the more polluting trucks are mainly sent south and eastwards. Clearly air quality monitoring is outside the scope of this project but an analysis of relative truck age on the motorways of France and Belgium compared to Germany would be quite revealing.

For journeys to and from the UK a six axle 44 tonne truck with lift axles and additional fuel tanks is specified by several non-UK hauliers to remain competitive in that market. It means the truck is carrying around a tonne of additional weight for no purpose

when running in mainland Europe. The payback to the operator is of course without the extra axle the truck would be limited to 40 tonnes whilst in the UK. Additionally due to the fuel price differential between the UK and the Benelux countries hauliers fill up before crossing the Channel/North Sea and generally avoid refuelling at all in the UK.



Figure 12.2 – Extra long plate on rear of trailer

A Dutch operator said, “In the Netherlands our company vehicles runs on five axles (4x2 tractors). But the fleet is geared up for traffic to different countries, so for running to the UK we have twelve 6x4 tractors suitable for 44 tonnes. The vehicles have either a day/rest cab or a full sleeper cab and the drivers sleep out a fair bit. We also fit extra fuel tanks either side of the tractor unit and behind the cab to avoid having to buy expensive fuel.”

Sweden allows HGVs up to 25.25m in length and up to 60t GVW⁴³². A benefit of longer, heavier vehicles in Sweden has been a better turning circle than the older 24m HGVs as well as less road wear⁴³³.

Austria is against a 60t GVW limit⁴³⁴. The current road conditions in Estonia do not allow the safe use of 25.25m HGVs with 60t GVW limits⁴³⁵. Greece and Luxembourg believe their respective road networks would not be able to cope due to

design limitations⁴³⁶.

According to a Polish transport company there is a vehicle dimensions issue with vehicles able to operate at 18.75m long at 4m high in Romania and Bulgaria but in Italy it is 21.5m with a height of 4.2m. In the UK and France there are no height limits (although if a vehicle has an overall height of 3 metres or above, a notice is required and must be displayed in the cab showing its full height). This haulier stated that it could not compete in the UK due to the height limits as UK domestic hauliers can specify taller trailers and achieve better payloads.

Norway conducted an impact assessment on restricting the height of HGVs to 4m and found that it would cost the economy €160 million every year⁴³⁷

12.6 Concluding Remarks

The road freight sector adapts very well to rules and regulations and specifies a wide variety of vehicles to meet the needs of its customers. Regulation (EC) No 1230/2012⁴³⁸ on type-approval of motor vehicles applies to all new vehicles put on the market in the EU, and amends the previous system in place since 2007 which already introduced an EU type-approval system, in addition

⁴³² Report on 60T Vehicles, 2007, *Conference of European Directors of Roads*

⁴³³ Report on 60T Vehicles, 2007, *Conference of European Directors of Roads*

⁴³⁴ Report on 60T Vehicles, 2007, *Conference of European Directors of Roads*

⁴³⁵ Report on 60T Vehicles, 2007, *Conference of European Directors of Roads*

⁴³⁶ Report on 60T Vehicles, 2007, *Conference of European Directors of Roads*

⁴³⁷ The Economic Impact of Regulating Truck Heights to 4 Meters – The Case of Norway, 2011, *Norwegian University of Science and Technology*

⁴³⁸ Regulation (EU) No 1230/2012 of 12 December 2012 implementing Regulation (EC) No 661/2009 of the European Parliament and of the Council with regard to type-approval requirements for masses and dimensions of motor vehicles and their trailers and amending Directive 2007/46/EC of the European Parliament and of the Council Text with EEA relevance *OJ L 353, 21.12.2012, p. 31–79*

to national type-approval standards. In addition to this Directive 1996/53/EC⁴³⁹ superseded Directive 1985/3/EC and the weights and dimensions in Annex I are binding in national and international transport, unless Member States decide to amend them in national transport (and then only under certain conditions). There is a proposal⁴⁴⁰ by the European Parliament to amend Directive 1996/53/EC which lays down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weight in international traffic. The aim of the amendment is to allow more energy efficient, aerodynamic vehicles to be put on the market. The revision of the Directive also offers an opportunity to improve road safety by improving the streamlining of the cab, allowing a reduction of the driver's blind spots, adding an energy-absorbing structure in case of shocks, as well as increasing the driver's safety and comfort.

Hauliers are constantly seeking ways of increasing vehicle productivity. This can be done by increasing the number of loads per day, improving the vehicle fill, and improving the vehicle planning. One particularly effective measure highlighted was to man the vehicles over a double shift and thus have them on the road in operation as much as possible and so covering a large mileage in a short space of time. This would mean the vehicle would be replaced sooner and newer vehicles are less polluting. This was discussed briefly in the report and data collected from Eurostat that this was indeed the case with the age of vehicles particularly in the EU-12 reducing with their increasing participation in international transport. Vehicles of five years old or less were found to be accounting for 60% of the total tonne/kilometre with those over ten years old performing only 13%.

Regulation (EC) No 1230/2012 and Directive 1996/53/EC applies to all new vehicles put on the market in the EU and outlines that trucks should be of maximum 16.5m (one point of articulation) or 18.75m (one or two points) in length, 40 tonnes in weight and 4m in height. For intermodal traffic, 44t was the maximum. The report points out that Directive 1996/53/EC has been amended in some Member States with regards to the modular concept, and limits of 25.25m and 60t are commonplace. Developments suggest that there is growing support for 25.25 metre trailers albeit there will be a limited market for them mainly in motorway trunking. The positive field tests on vehicle use, infrastructure capacity, etc have lessons for Europe. But at the same time the EU has set ambitious targets for a growth in rail freight and this should not be undermined by other interventions without careful thought.

It should be noted that the proposal to revise Directive 1996/53/EC does not propose to extend the use of LHVs, but instead leaves the decision up to Member States.

⁴³⁹ Directive 1996/53/EC – of the European Parliament and of the Council of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international Traffic, *OJ L 235, 17.9.1996, p. 59–75*

⁴⁴⁰ Proposal for a Directive of the European Parliament and of the Council amending Directive 96/53/EC of 25 July 1996 laying down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic.

13 Use of Technology

13 Use of Technology

13.1 Introduction

There is evidence from the World Bank⁴⁴¹ to suggest that greater competition within the European market and the reduction of barriers to entry can promote innovation within the industry and develop competition resulting in increased sales revenue and reducing the rate of cost inflation by between 5 and 15%.



Figure 13.1 – Vehicle Loading Bays

Research has produced significant positive associations between innovations such as ‘Just in Time’ (JIT) logistics and competition levels as well as increases in sales revenues; in addition, significant associations have been found between the hiring of logistics consultancies and reductions in costs, for example one case study found that an Irish manufacturer was able to reduce logistics costs by over 30% when employing a 3PL⁴⁴².

As such this chapter looks to explore the sorts of innovation that are being undertaken within the road freight industry including operational, strategic and technological innovations, in an effort to determine the specifics of how market liberalisation can achieve greater levels of innovation and competition.

13.2 Strategic Innovation

13.2.1 Dynamic Shipping and Subcontracting.⁴⁴³

Large shipping organisations are contracted to provide a full range of supply chain services and consequently transport a wide variety of goods and commodities, often in addition to what might be classed as their core competence. It is therefore becoming increasingly unlikely that a single shipper will handle a consignment from the beginning to the end of its journey, rather transport of a consignment for all or part of its journey will be subcontracted out.

As discussed in Chapter 8, the contracting of shipments to smaller hauliers has become increasingly common as well as larger companies partnering or merging with smaller operations to take advantage of their specific expertise or abilities i.e. high frequency services to particular destinations. One survey conducted in France, found that large hauliers, more than 500 employees, were responsible for the majority, 61.5% of subcontracting between two hauliers.⁴⁴⁴

⁴⁴¹ Downstream Benefits and Policy Implications, World Bank Policy Research Working Paper 3768, 2005, *World Bank*

⁴⁴² An investigation into Outsourcing Practice in Ireland: a New Direction in Logistics and Supply Chain Management, 2007, Aoife O’Riordan & Edward Sweeney, Dublin Institute of Technology

⁴⁴³ Organization and Subcontracting Relationships in French Road Haulage, 2010, *12th WCTR Lisbon, Portugal*

⁴⁴⁴ Organization and Subcontracting Relationships in French Road Haulage, 2010, *12th WCTR Lisbon, Portugal*

As such transport relationships are complex with an industry that invariably self determines the best solution to maintain service levels at lowest cost. As organisations become more reliant on international market the distance between source and destination of their goods increases this leads to a longer supply chain.⁴⁴⁵ In addition, consolidation, just in time logistics and reduced inventory size increase the frequency but reduce the size of consignments. These factors have meant that the nature of transport is changing throughout Europe with the need for consolidation becoming increasingly apparent and therefore the growth of large supply chain organisations.

13.3 Economic Innovation

13.3.1 Logistics Pricing

Pricing responsibility within logistics companies has been found to differ depending on the size of the company. In larger companies, responsibility is often based with the marketing department with aid from accounting, in medium sized and smaller companies this can be split between marketing, accounting and operations – in certain small companies this can be one joint person or department who may or may not be in charge of planning. Strategy or finance departments have been rarely found to be involved in price setting⁴⁴⁶ As such, many operators continue to pursue traditional pricing strategies such as activity based costing or zone based pricing. However, a number of newer, more innovative pricing structures are starting to emerge.

13.3.2 Economies of Density⁴⁴⁷

Traditional pricing strategies have long sought the benefits of economies of scale, an increase in the rate of output greater than the marginal cost of doing so, with a corresponding increase in the size of the network i.e. the number of origins and/or destinations served.

Newer pricing strategies are focusing on the benefits derived from economies of density – increases in output greater than the marginal cost whilst the size of the network remains fixed. This takes account of benefits for example if a transport company alters its route structure within a given network due increased outputs therefore changing attributes such as average trip length. This can be described if for example increases in volumes from one origin enable a direct connection to the destination rather than an indirect to pick up further goods thus reducing the average trip length and overall cost.

In an increasingly competitive market, customers are looking to drive down margins therefore operators have to come up with increasingly accurate and innovative methods of pricing.

13.3.3 Shared Profit – Return to Customer

Profit sharing is a very traditional strategy where management and or employees take a share in profits and are therefore more motivated to do a good job. What isn't traditional is the idea of sharing profits with customers thereby establishing several benefits. These include customer loyalty, much greater levels of flexibility in terms of customer demand and service levels as benefits for the operator will also be benefits for the customer in addition to promoting transparency and a greater relationship.

13.3.4 Supply Chain Integration

Transport companies are increasingly looking to provide a complete supply chain solution including expertise in areas such as procurement and supplier management as well as reverse logistics as well as the traditional roles of transport and warehousing in order to apply its own expertise to add further value to its customers. This can include the adoption and management of existing IT systems as well as reorganisation of staffing structures and contract renegotiation.

⁴⁴⁵ Impact of the globalisation on the logistics service providers in Belgium, 2006, Cornillie and Macharis, Vrije Universiteit Brussel

⁴⁴⁶ Logistics Pricing Innovation, 2003, Industrial Logistics Institute

⁴⁴⁷ Economies of Density, Network Size and Spatial Scope in the European Airline Industry, 2005, *Institute of Transportation Studies University of California at Berkeley*

Case Study - DHL NHS Procurement Supply Chain Case Study

When DHL took over the NHS UK supply chain, they were required to take on more than purely the transport and warehousing functions. DHL were tasked with increasing sales revenue through the ability to offer more products as well as reduce costs through staff structure centred on product expertise and the renegotiation of supply contracts.

13.4 Operational Innovation

13.4.1 Just in Time (JIT) Logistics⁴⁴⁸

Just in Time logistics is not necessarily a new concept, first being pioneered in Japanese Car Manufacturing between 1945 and 1975. The practice requires a step change in thinking, away from the traditional view of stock/inventory as an asset, as per the traditional accounting view to an idea that inventory should be seen as waste. As such, this requires a step change in thinking towards a culture of continuous improvement, developing and managing quality and eliminating inventory – being able to order and have parts delivered (internally or externally) as they are required. This requires the concept to be realised throughout the whole supply chain to be truly beneficial.

It is being further developed through programs such as Six Sigma⁴⁴⁹ which aim to improve accuracy and reduce cycle time variability in manufacturing processes in order to increase productivity and reduce breakeven points. However, such operations can put further pressure on transport and whilst these systems reduce the cost of goods and free up resources within the economy they require greater amounts of transport and a reliable infrastructure and service. Thus these manufacturing techniques are not always consistent with high load factors and vehicle utilisation.

Critical to all of this therefore is the creation of lasting supply chain partnerships with high levels of transparency based in a liberalised regulatory system and able to use well managed and maintained infrastructure in order to create the reliability and predictability required for consistently successful JIT systems.

Further market liberalisation would allow transport operations to compete and cooperate on a European scale therefore making the industry more transparent and competitive, crucial to developing and maintaining the high levels of service and partnerships required in order to operate JIT manufacturing and supply chains.

13.4.2 Freight Exchange & Load Matching

Freight Exchanges and load matching have become popular in recent years as a low cost way of solving a well known and expensive problem in terms of return loads and empty running for road haulage vehicles with members being able to post available loads, their type and origin/destination in order to sell them to other operators that may have spare capacity on their vehicles, thus being able to increase their utilisation and reduce their empty running miles. Their scale of such operations, many of which having an online presence varies from internally within a company to entire businesses set up to provide such a service potentially on a global scale. The study team were unable to obtain any research on the overall scale of the freight exchange market or the impact of road haulage as a whole. However, several hauliers stated that they used them regularly, especially to obtain backloads.⁴⁵⁰

To put a scale on the level of operation of freight exchanges is difficult but they have grown significantly since the introduction of the internet. However they existed before this and the world's first electronic freight exchange, Teleroute, was launched in France on the Minitel system in 1985.

⁴⁴⁸ A study of the Toyota Production System, 1989, *Productivity Press*

⁴⁴⁹ The Six Sigma Way, how GE, Motorola and Other Top Companies are Honing Their Performance, 2000, Pande, Neuman and Cavanagh

⁴⁵⁰ Haulier Interviews, 2011, AECOM (Opinion of haulier/company, different opinions may exist)

An example of the growth of European Freight Exchanges can be found on www.trans.eu. This company called Trans Exchange started in just 2004 and has grown significantly and this company has 100,000 offers a day from 200,000 users.

Another example of the web based load matching services is the market leader TIMOCOM's system⁴⁵¹, *TC Truck&Cargo®* which is enabling companies to optimise their fleet usage by securing backloads and/or cabotage movements. Up to 300.000 international vehicle and freight offers are made daily in this freight exchange available from currently 85.000 users across Europe which vary from large to small enterprises.

There are many companies offering services in the market place now. AECOM expects the market to continue to grow until reaching a saturation level. However, with diversification into debt recovery and legal services there is more growth expected which should help with industry efficiency.

Such innovation is aided through market deregulation. The lifting of geographical restrictions for example, increases the number of potential users i.e. buyers and sellers on the freight exchange and therefore the likelihood of matches being found and reductions in empty running. This drives down the cost of transport as well as reduces transport environmental costs as one vehicle transports two loads as a round trip rather than two vehicles transporting one load each and returning empty.

As such, any moves to improve market policy such as further liberalisation of the market will only help to further innovation and flexibility within supply chains driving costs down by allowing shippers to choose the best transport and logistics services for their particular consignment.

13.5 Technological Innovations

13.5.1 Fuel Management



Figure 13.2 – Tractor Unit Refuelling in Yard

Fuel is increasingly becoming the most critical cost for any haulage operator, representing over a third of their total operating costs. As such, those operators are increasingly looking for ways to manage and reduce their fuel consumption. However, a problem exists in that much of this technology is aimed at operators with multiple vehicles and as such can be quite expensive. Accordingly, smaller operators and owner drivers, which make up a large percentage of the market, adopt such technology on a fairly slow basis, therefore limiting its potential on a Europe wide basis. An effective fuel management program can reduce fuel costs by as much as 5%.⁴⁵²

Recent years have seen an increase in the number of technological solutions available on the market both as manufacture fitted options as well as retrofitted products to enable the better management the latest kit integrates on

board systems with the fuel pump in order to provide real time fuel consumption for performance and often for each driver as well as informing on stock levels and potentially automatically re-ordering supplies as well as alerts regarding maintenance issues such as tyre wear. It also serves as a security feature in that vehicles must 'identify' with the system before fuel can be dispensed. Information can be displayed to a computer or often to any web enabled device, such as a tablet computer or Smartphone.

⁴⁵¹ TimoCom Soft-und Hardware GMBH, 2012, www.timocom.co.uk

⁴⁵² Freight Best Practice, Fuel Management Guide, AECOM/Department for Transport UK

Such data can be analysed and manipulated to provide fuel efficiency data for the fleet, individual vehicles and drivers (often independently of the vehicle they've used) to create performance league tables if the company wishes.

13.5.2 Fuel Reduction

Online tools – part of an existing fuel management package or independently can look at the data and suggest ways to improve fuel consumption such as the introduction of aerodynamic components, computerised navigation, driver training, or tyre selection; along with estimated average savings. Many tools also give an estimate of CO₂ savings.



Figure 13.3 – In-cab Driving Warning Device

A UK system, developed by the Department for Transport also enables companies to sign up to a service that allows them to benchmark their performance against each other on an anonymous basis across a wide range of KPIs (Key Performance Indicators), the most important being miles per gallon and CO₂ emissions. A number of fuel management companies are looking to integrate with the system. Companies can then gauge their performance against others and also see what others are doing to improve their performance.

Other systems reduce fuel consumption through physically stopping and starting the engine automatically when the vehicle reaches a standstill, therefore minimising idling. Sophisticated systems able to anticipate when a vehicle is about to move off, may mean that the driver could not realise the system is in operation.

13.5.3 Monitoring of Driver Behaviour

Similarly to some on board fuel management systems, a number of systems are also able to monitor the behaviour of a driver in terms of acceleration, breaking, idle time,

ancillary systems operation e.g. hazard lights, vehicle speed, gear changes, and time spent in the optimal power zone (known as the green band) All of this data, either taken from the engine systems or independently through the use of accelerometers and GPS fixing. The information is fed to transport operations in order to be given to drivers as part of a structure training and improvement program that will reduce fuel consumption, vehicle wear and tear and accident rates.

An increasing number of systems also allow for in-cab units to directly feedback to drivers often using a traffic light system thereby enabling them to self-improve as they drive and learn the system. Evaluations have proven however that training should be continuous in order to retain the benefits of such a system and the investment that requires.

13.5.4 Computerised Routing, Tracking and Navigation

A great deal of inefficiency can be created in both the planning and execution of transport routes. Computers can be used to find the most efficient routing solution depending on origin, destination and load, which can be particularly useful for routes requiring multiple drop locations. Large transport companies can obtain bigger savings from technology. So for example computer routing and planning systems (CVRS) have traditionally only been cost effective for companies with ten or more vehicles and so small road haulage companies have not been able to benefit from the 10-15% savings in efficiency that these types of system can offer. However internet CVRS systems are now becoming available.

Vehicles can be tracked in real time as well as their speed so operators have full visibility of their fleet and can know in advance their estimated arrival times. If problems occur, customers can be alerted as well as support immediately dispatched in the event of an accident or breakdown. The information can also be linked to the Police should a criminal incident occur, acting as greater security for both the vehicle and the driver. The system can also alert if drivers go off the designated route, allowing them to be contacted if necessary as well as when the vehicle arrives at their destination or at other key waypoints such as fuel stops or less desirable destinations such as roadside cafes.

Navigation devices, an increasing number designed specifically for trucks can also help the driver to find his way on unfamiliar routes and reducing the risk of large vehicles find their way onto unsuitable routes or striking bridges. The latest devices can be

linked to the route planning and tracking software, providing an integrated solution that can be updated and adapted according to traffic conditions.

Case Study – 215215 Transporter AB

With a fleet of over 20 vehicles, Swedish based 215215 Transporter AB had no visibility for them once they left the depot. GPS systems as well as hand held devices were installed to aid distribution, vehicle loading and planning.

Average daily tasks increased by around 3% per driver therefore fewer vehicles and fewer vehicle-km were required in order to fulfil the same level of output.

13.5.5 Traffic Management and Parking

Secure truck parking⁴⁵³ is becoming an increasing issue throughout Europe and a recently adopted proposal for a Regulation⁴⁵⁴ on provision of information on secure parking areas states that road safety is a major subject within the European Union's transport policy. Analysis conducted by the European Centre of Studies on Safety Risk and Analysis estimated that around 44 lives were lost and 1,430 injuries per year were due to unsuitable parking of trucks⁴⁵⁵. The EU is highly committed to reducing the number of road accidents by avoiding unsuitable parking through an information service and ensuring parking optimisation. The proposal for a Regulation of the European Parliament and of the Council on Union guidelines for the development of the Trans-European Transport Network (TEN-T)³ also requires Member States to provide secure parking places for commercial vehicles with a possibility of provision of Union financial aid through the Connecting Europe Facility (CEF)⁴.

One way is to ensure supply is adequate, whilst another arguably more efficient method would be to manage demand through access control and the dissemination of occupancy information to operators as well as the ability to reserve spaces in advance, therefore trucks can travel to appropriate truck parking and know they have a space. This cuts down on additional running to find parking as well as un-authorized parking for example in lay-bys. Willingness to pay for such technology appears low throughout the industry and perceived benefits do not yet outweigh the costs of such systems. However, reservation systems are being offered by a small number of truck parking areas and moves towards the standardisation of capacity information are being created in order to make such data easier to feed to both back office functions as well as inside the cab.

As well as parking areas, the road infrastructure itself is increasingly incorporating systems to help manage demand and smooth the flow of traffic. Technology currently includes:

- Ramp Metering: controlling the flow of traffic on ramps to main highways through the use of traffic signals and road sensors to monitor traffic flow on both the mainline carriageway and slip road. Other instruments use variable signage to alter speed limits to increase traffic capacity as well opening up hard shoulder as an extra lane when necessary
- Other initiatives include narrowband radio to produce traffic information on specific routes as well as message signage displaying traffic problems and journey times to key destinations allowing drivers to adapt their routes where necessary

13.5.6 Lower Emissions and Alternative Fuels

The industry is looking to lower emissions amid increasing political pressure for transport to become more sustainable. The Euro emissions program is also looking to reduce localised emissions throughout Europe such as NO_x and PM₁₀ in order to improve air quality particularly in urban areas. The latest standards for new vehicles are Euro V, which came into force in 2008 with Euro VI due to come into force in January 2013. This looks to reduce hydrocarbon emissions by 0.7g per kWh and half particulate

⁴⁵³ Study regarding secure parking places for trucks and commercial vehicles, telematics-controlled parking and reservation systems, 2011, *European Commission*

⁴⁵⁴ Commission Delegated Regulation (EU) No .../.. of 15.5.2013 supplementing ITS Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of information services for safe and secure parking places for trucks and commercial vehicles

⁴⁵⁵ Analysis led by CEESAR (European centre of studies on safety and risk analysis) on a basis of 624 road accidents involving at least one HGV (722 trucks with 433 trailers involved). The accidents happened between May 2004 and March 2006. All accidents involved at least one injured person. Of these 624 road accidents, 12 involved a parked HGV.

emissions. A number of methods have been used to achieve such emissions, for example fuel additives, and exhaust gas recirculation.

The Clean Power for Transport Strategy⁴⁵⁶ aims to facilitate the development of a single market for alternative fuels for transport in Europe. Alternative fuels are urgently needed to break the over-dependence of European transport on oil. Transport in Europe is 94% dependent on oil, 84% of it being imported, with a bill up to EUR 1 billion per day, and increasing costs to the environment. Research and technological development have led to successful demonstrations of alternative fuel solutions for all transport modes. Market take-up, however, requires additional policy action.

Alternative fuels that lower emissions and/or decrease the reliance on fossil fuels are being developed. A proposal for a directive on the deployment of alternative fuels infrastructure outlines that these are in operation throughout Europe⁴⁵⁷ and include bio-diesel (mixed into diesel on a 5% mix). Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG), and Liquefied Petroleum Gas (LPG) are also being utilised.

Electric vehicles are also being developed, though their performance often limits them to short range delivery, but makes them suitable for urban delivery. Their environmental performance however, depends on their source of the electricity. If from a renewable source such as wind, or hydro electric, they are truly zero carbon, zero emission vehicles, if from more traditional sources, then they may be less polluting but cannot be said to be zero emission. Another key issue with electric vehicles is the availability of charging points⁴⁵⁸, which are encompassed in a catch-22 situation, in that private industry is unwilling to invest in charging points due to the small number of vehicles on the road; however few vehicles are being purchased due to the lack of charging points. It may therefore be down to the public sector to provide an initial level of points in order to get the market moving.

Hydrogen vehicles are another solution, powered by fuel cells, they have a longer range, and though they face a load penalty due to the weight of the fuel cell ultimately they still require hydrogen fuel and so face the same problems with infrastructure. Hydrogen itself is also costly and energy intensive to produce.

Bio-diesel is an alternative to all of these and will run in conventional diesel engines. There are a wide number of sources being developed though not without some controversy. The largest sources of bio-diesel come from plantation of special crops such as rapeseed. Whilst sustainable in one sense, large amounts of farmland have to be sacrificed, leading to problem with food supplies and pushing up global crop prices. Later generation bio fuels however, produced from sources such as Algae and waste matter offer a more sustainable but nevertheless more expensive solution.⁴⁵⁹

13.6 Barriers to Adoption of Innovation

The uptake of new technology by the road freight market tends to be patchy and as a general rule is more likely to be adopted by the bigger companies. The reasons for this include time, knowledge and resources. The fact that large companies can afford to employ project managers to investigate new products and conduct cost-benefit analysis for their business means that relevant technology is adopted where justifiable which further benefits the business. Small to medium companies may read of new developments in the trade press but struggle to find time to investigate the products and even if they do it can be difficult to reach the point of deciding to acquire new technology. The payback period for justifying the investment is often more than one year and it can be difficult to fund immediate investment. The tendency is that specific innovation connected to changes is most likely to be adopted either if it is mandatory, contractual with customers or is included in new vehicle standard specifications. With the cascade of second-hand vehicles that have technology features to smaller hauliers, over time the industry does gradually adopt modern technology. However, if the European Commission wants to see a more widespread and rapid uptake of technology and

⁴⁵⁶ http://ec.europa.eu/transport/themes/urban/cpt/index_en.htm

⁴⁵⁷ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the deployment of alternative fuels infrastructure

⁴⁵⁸ Will charging infrastructure be the electric car's speed bump?, 2010, *Venture Beat*
<http://venturebeat.com/2010/12/27/will-charging-infrastructure-be-the-electric-cars-speed-bump/>

⁴⁵⁹ Appendix State of the Market Analysis - Biofuels Technical Note, 2010, AECOM

logistics systems then there may be a requirement to provide education and potentially some funding to assist smaller companies with modernisation.

13.7 Concluding Remarks

Competition has seen an increase in innovation in a number of sectors in the road haulage market, particularly in relation to Just in Time logistics. There are opportunities to improve fleet efficiency in a variety of ways such as load matching, vehicle scheduling systems, fuel management systems and newer, more efficient vehicles. However, uptake of these technologies is not universal with a lack of access to finance or ability to scope out and implement improvements particularly hampering small and medium sized hauliers. Larger, more cash-rich companies are generally better able to gain a competitive advantage over smaller organisations for the introduction of new technology and innovation, therefore further increasing the efficiency of their fleets.

14 Other Comments and Observations

14 Other Comments and Observations

14.1 Introduction

This chapter has been developed to highlight issues relevant to the EU haulage market that have not been addressed elsewhere in the report. The topics that are addressed in this chapter detail Low Emission Zones (LEZs), parking fines and goods vehicle bans. All three can have a significant impact on road freight operations and inconsistencies in approach from the various states across the EU can cause issues for transport managers.

This chapter provides a number of examples from countries across the EU to highlight the variety of approaches to implementing and managing Low Emission Zones, parking fines and goods vehicle bans, the impact of each intuitive on hauliers and a conclusion on the overall effect of each of the EU Haulage industry.

14.2 Low Emission Zones (LEZs)

14.2.1 Background

LEZs have been introduced across Europe in an effort to reduce pollution levels in certain (usually urban) areas. A study carried out by the European Commission in 2010 on Urban Access Restrictions⁴⁶⁰ investigated the state of Access Restriction Schemes (ARS) in Europe. It identified ways in which the European Union could engage to promote better awareness of the ARS concept, the implementation options and of their effects, and the dissemination and exchange of best practice in this field.

A Low Emission Zone (LEZ) is an area in which only vehicles that meet a specific emission standard are permitted to drive. Vehicles with high emissions are banned from a LEZ, usually incorporating HGV. The main aim of a LEZ is to either reduce traffic congestion or reduce the level of vehicle emissions that are harmful to health. It improves the air quality, thus reducing the health risk for those living and working in the area.⁴⁶¹

Whilst European Union directives limit exhaust emissions from new vehicles (defining Euro emission standards for carbon monoxide (CO), hydrocarbons (HC), nitrogen oxide (NOx) and particulate matter (PM10)), road traffic remains a significant contributor to overall emission levels and road freight is no exception. For example in the UK in 2010, 22.2% of PM10 and 34% of NOx emissions were attributable to road transport.⁴⁶² Since 1997, partly as a result of fuel duty concessions for ultra low sulphur diesel, the level of sulphur dioxide (SO₂) emissions from road freight transport has significantly decreased. However, SO₂ emissions still pose an environmental hazard.

The establishment of Low Emission Zones in European cities has helped reduced pollution and encourage the use of vehicles more appropriate in urban environments.⁴⁶³ Around 50 such schemes are operating in Italy, Germany and the Netherlands, and London already possesses an established, effective LEZ.

14.2.2 London Low Emission Zone

A number of cities have looked to limit access to HGVs, with a focus on encouraging less polluting vehicles. London is one such city, which charges entrants to its Low Emission Zone (comprising the majority of the Greater London area) which do not meet the required emissions standards (see Table 14.1).

⁴⁶⁰ Study on Urban Access Restrictions, Dec 2010, European Commission

⁴⁶¹ Low Emission Zones in Europe, <http://www.lowemissionzones.eu> Sadlers Consultants on behalf of Low Emission Zone in Europe Network

⁴⁶² UK National Atmospheric Emissions Inventory, 2012, maintained by AEA on behalf of Defra

⁴⁶³ Low Emission Zones in Europe, <http://www.lowemissionzones.eu> Sadlers Consultants on behalf of Low Emission Zone in Europe Network

Vehicle Type	Weight	Does not meet the current LEZ standards (Euro IV for PM)
Lorries Motor caravans Motorised horseboxes Breakdown and recovery vehicles Snow ploughs Gritters Refuse collection vehicles Road sweepers Concrete mixers Fire engines Tippers Removal lorries and other specialist vehicles	More than 3.5 tonnes gross vehicle weight	Vehicles registered as new before 1 October 2006
Buses Coaches (with more than 8 passenger seats)	More than 5 tonnes gross vehicle weight	

Table 14.1 – Diesel Vehicles That Do Not Meet The LEZ Emissions Standards⁴⁶⁴

The London Low Emission Zone (LEZ) operates 24 hours a day, every day of the year, including weekends and public and Bank Holidays. Cameras read the vehicles number plate as it enters the zone and checks it against a database of registered vehicles. This system automatically informs Transport for London whether a vehicle meets LEZ emissions standards, is exempt, is registered for a discount or if the relevant daily charge has already been paid.

If a vehicle does not meet the emissions standards, the daily charge is £100 for larger vans, minibuses and other specialist vehicles, and £200 for lorries, buses, coaches and other specialist heavy vehicles.

⁴⁶⁴ London Low Emission Zone, vehicles affected, 2012, *Transport for London*



Figure 14.1 – Extent of London LEZ⁴⁶⁵

14.2.3 Low Emission Zones (E-Zones) in Germany

Following amendments to Road Traffic Licensing regulations in June 2007, many German cities are now creating E-zones. These E-Zones are designed to improve air quality and meet EU targets for particulate matter. The first E-Zones started in January 2008 and there are now over 40 throughout Germany. Vehicles are permitted or excluded on the basis of windscreen stickers which are required to show the vehicle's emissions class. Figure 14.2 shows the sticker system in operation at the outset of the scheme.

⁴⁶⁵ LEZ Map, 2011, *Transport for London*

Pollutant Class	1	2	3	4
Sticker	Not eligible for a sticker			
Emissions Requirement (Diesel Vehicles)	Euro 1 or older	Euro 2 or Euro 1 + Particulate Filter	Euro 3 or Euro 2 + Particulate Filter	Euro 4 or Euro 3 + Particulate Filter

Figure 14.2 – German E-zone Sticker⁴⁶⁶

The yellow and red stickers will eventually be phased out, after which all vehicles permitted in the environmental zones will need a green sticker. The stickers are hard to counterfeit and would be destroyed in any effort to remove them from the windshield. Petrol and diesel-powered vehicles without catalytic converters are unable to get any kind of a sticker and will not be permitted in the environmental zones. All gasoline-powered cars with catalytic converters will get a green sticker.

14.2.4 Amsterdam Milieuzone

In 2008, Amsterdam introduced an LEZ that applies to heavy-duty diesel-engine lorries with a Gross Vehicle Weight over 3.5 tonnes.

Vehicles not meeting the emissions standards can be made to do so by modifying them to meet the relevant Euro standard for particulate matter. Retrofitting can be done by fitting a diesel particulate filter (DPF) to a vehicle with an earlier Euro standard. Dutch vehicles need to have a particulate trap certified by the Department of Road Transport (RDW) of the Netherlands.

The Milieuzone is in operation throughout the year, and the fine for non-compliance at the outset of the scheme was €150.

Exemptions in the Netherlands are nationally agreed. There are two types of exemption, national exemptions which are centrally administered and local exemptions which are administered by the municipality.

National Exemptions:

- The vehicle older than 13 years, counted from the date of first registration
- Crane / Crane Vehicle
- Work Platforms Mixer / concrete mixer / concrete pump
- Fire engine
- Mobile shops
- Street cleaners
- Armoured vehicles
- Exceptional transport
- Fairground or circus vehicle
- Removal lorries
- Euro III vehicles 100% bio-diesel as they cannot be retrofitted

⁴⁶⁶ Produced by Eminox, 2012 <http://www.eminox.com/german-environmental-zones/>

- Euro III vehicles with an uncertified diesel particulate filter fitted before 1/10/2006
- Euro III vehicles where no filter is available, or certified or technically not able to be fitted

Municipal exemptions:

- Daily exemption if vehicle visits each LEZ fewer than 12 times a year
- Exemption if a new vehicle has been ordered
- Hardship exemptions on a case-by-case basis, if the company is financially unable in the short term to afford a filter or cleaner vehicle and the business's livelihood depends on having this cleaner vehicle



Figure 14.3 – Amsterdam LEZ Area⁴⁶⁷

Effect of Low Emission Zones on Road Haulage in the EU

⁴⁶⁷ Low emission zones in Europe, 2012, *Sadler Consultants Ltd* <http://www.lowemissionzones.eu/countries-mainmenu-147/netherlands-mainmenu-88/amsterdam>

With many major urban centres across the EU now having introduced LEZs, this has had a significant impact on many hauliers. For those required to operate within LEZs, this has necessitated the purchase of new vehicles, or a reassignment of the more polluting vehicles in the fleet away from LEZs, in favour of cleaner/smaller vehicles. Alternatively, operators have looked to fit particulate filters to older vehicles to ensure they can still operate in the areas required, with associated cost impacts.

A further option available to hauliers is the hiring of a compliant vehicle for occasional trips into the zone.

Of course, vehicles are generally not physically restricted from entering an LEZ and operators may simply choose to pay the charge and continue as before. However, given the high rates currently charged for entering a number of LEZs (e.g. London) this would more than likely have a significant impact on profitability.

Overall, the introduction of LEZs, in conjunction with the associated Euro Engine standards, has had a significant impact on emissions associated with the road haulage industry. Operators have been required to upgrade their fleets and modify their operations to meet the stringent emissions standards of LEZs.

14.2.5 Future Developments

It is likely that the success of LEZs in reducing localised (and potentially wider) emissions will result in the introduction of additional schemes across Europe. Therefore, an increasing number of hauliers are likely to have to undertake the modifications to their fleet and associated working practices described above.

14.3 Lorry Bans

The presence of HGVs on certain parts of the highway network can result in a number of issues relating to excessive noise, increased congestion, a negative impact on highway infrastructure and pollution. Lorry routes and bans may help combat such problems and help prevent damage to existing infrastructure

Heavy goods vehicles are an important contributor towards total traffic noise. Bans would reduce traffic noise on the roads covered by the bans. In addition many people suffer from high exposure to pollutants emitted by road traffic. Although lorry bans may reduce the amount of air pollution, benefits would be confined to specific places and specific pollutants.

HGVs can contribute to congestion, especially in terms of breakdowns, accidents, spilled loads, illegal parking and loading and unloading and a ban can help relieve some of the congestion.⁴⁶⁸ Some countries, such as France, have restrictions in place at weekends, often to assist tourism.

Trucks can be very heavy, and apply severe forces on road surfaces and infrastructure. Where bridges are weak or low or merely where a particular network cannot cope with the sheer volume of traffic, road section restrictions may be appropriate.

In addition, vibrations caused by trucks may affect historic buildings located in close proximity to a road. Again, consideration may be given to implementing a truck ban where it can be proven that trucks are having a negative impact on the integrity of a building.

Urban areas can experience pollution from a variety of sources; however emissions associated with transport often form a significant proportion of overall emissions⁴⁶⁹. Where pollution exceeds acceptable levels, consideration may be given to introducing a temporary ban until the issue abates, or a ban focused on the most polluting trucks.

Restricting large trucks in cities has been one of the most popular measures in developing countries due to road capacity limitations. Large trucks are perceived as slow-moving and hindering the free-flow movement of traffic particularly during peak hours. In addition, trucks intimidate motorists and restrict their field of vision apparently because of their large sizes⁴⁷⁰.

⁴⁶⁸ Lorry routes and bans, 2012, Institute for Transport Studies, University of Leeds

http://www.konsult.leeds.ac.uk/private/level2/instruments/instrument038/l2_038b.htm

⁴⁶⁹ Low Emission Zones in Europe, <http://www.lowemissionzones.eu> Sadlers Consultants on behalf of Low Emission Zone in Europe Network

⁴⁷⁰ Impacts of large truck restrictions in freight carrier operations in metro manila, Jun T. Castro & Hirohito Kuse, Journal of the Eastern Asia Society for Transportation Studies, Vol. 6, pp. 2947-2962,2005 http://www.easts.info/on-line/journal_06/2947.pdf

Dependent on the type of road, trucks can form a significant proportion of overall road traffic. A relatively small drop in traffic can have the effect of freeing up junctions and enabling the smooth flow of all vehicles. Therefore, truck bans may be considered where congestion is an issue. This would likely represent a timed ban at peak hours. An example of this occurs in France⁴⁷¹ and the restriction is mainly related to the start and finish of the holiday season in the French Alps. Restrictions apply in February, March, July and August.

As discussed, inclement weather such as high winds or thick fog can have a particular impact on trucks, which are high sided and have increased stopping distances in comparison to smaller vehicles⁴⁷². Clearly communicated, focused, temporary restrictions could be considered in specific circumstances.

Lorry bans can be implemented and enforced in a number of different ways. There are generally advance warning signs on the approach to an affected area and bans are enforced via a variety of CCTV, number plate recognition systems and highway patrols. Where enforcement is automated, violations are processed and vehicle databases are used to contact those responsible.

In Europe, there is much variation in the nature and extent of bans across the member states. A study by the European Commission on driving restrictions for heavy goods vehicles in the European Union⁴⁷³ highlights the different types of bans countries might impose. These are broken down into two types (see Fig 14.4) 1) fixed date and 2) non-fixed-date restrictions. Fixed date restrictions include night bans, weekend bans, holiday bans (for both holiday traffic in winter and summer and public holidays) and miscellaneous bans (road section restrictions and planned road works). Non-fixed-date restrictions include commodity group bans, extreme weather bans, congestion related bans and “ad hoc” bans (occur as a result of traffic accidents).

Figure 14.4 demonstrates the different types of bans in operation across Europe.

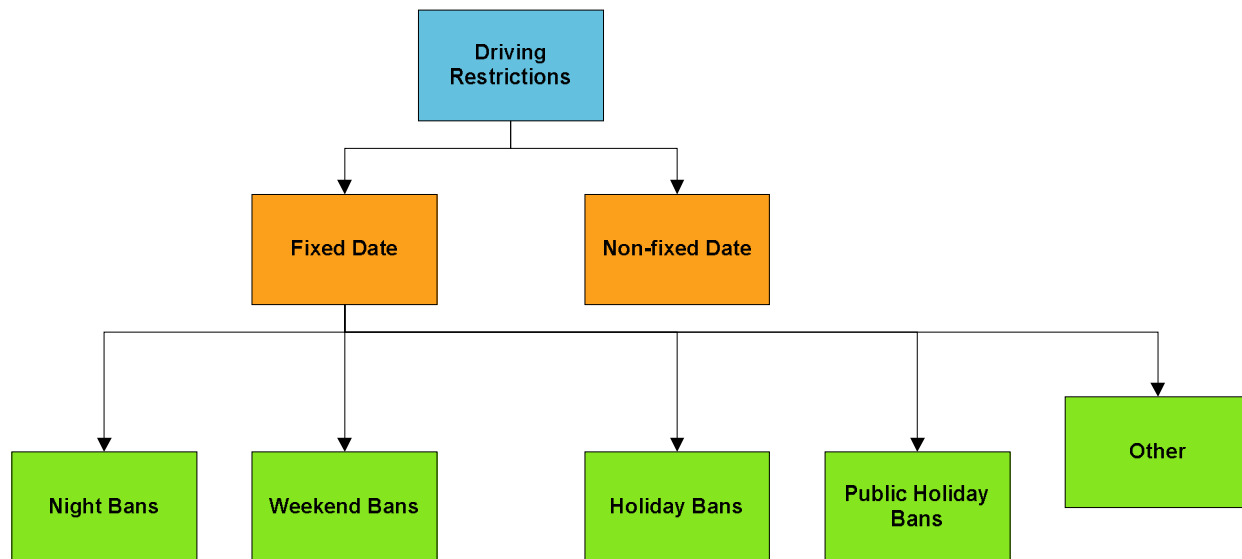


Figure 14.4 – Main Classification fixed (calendar) date restrictions

As discussed, there is significant variation in the number of bans across Europe. Figure 14.5 shows the number of weekend days with restrictions for HGVs across Europe during the course of a year. France and a number of Central European countries have

⁴⁷¹ Driving Restrictions for Heavy Goods Vehicles in the European Union, July 2010, *European Commission*

⁴⁷² Truck Braking Systems and Stopping Distances, 2012, *The Royal Society for the Prevention of Accidents*

⁴⁷³ Driving Restrictions for Heavy Goods Vehicles in the European Union, July 2010, *European Commission*

over 100 weekend days a year with restrictions, whilst the UK, Belgium and the Netherlands have none, demonstrating the lack of harmonisation across Europe.

Similar variations are demonstrated when comparing night bans, and holiday and public holiday bans.

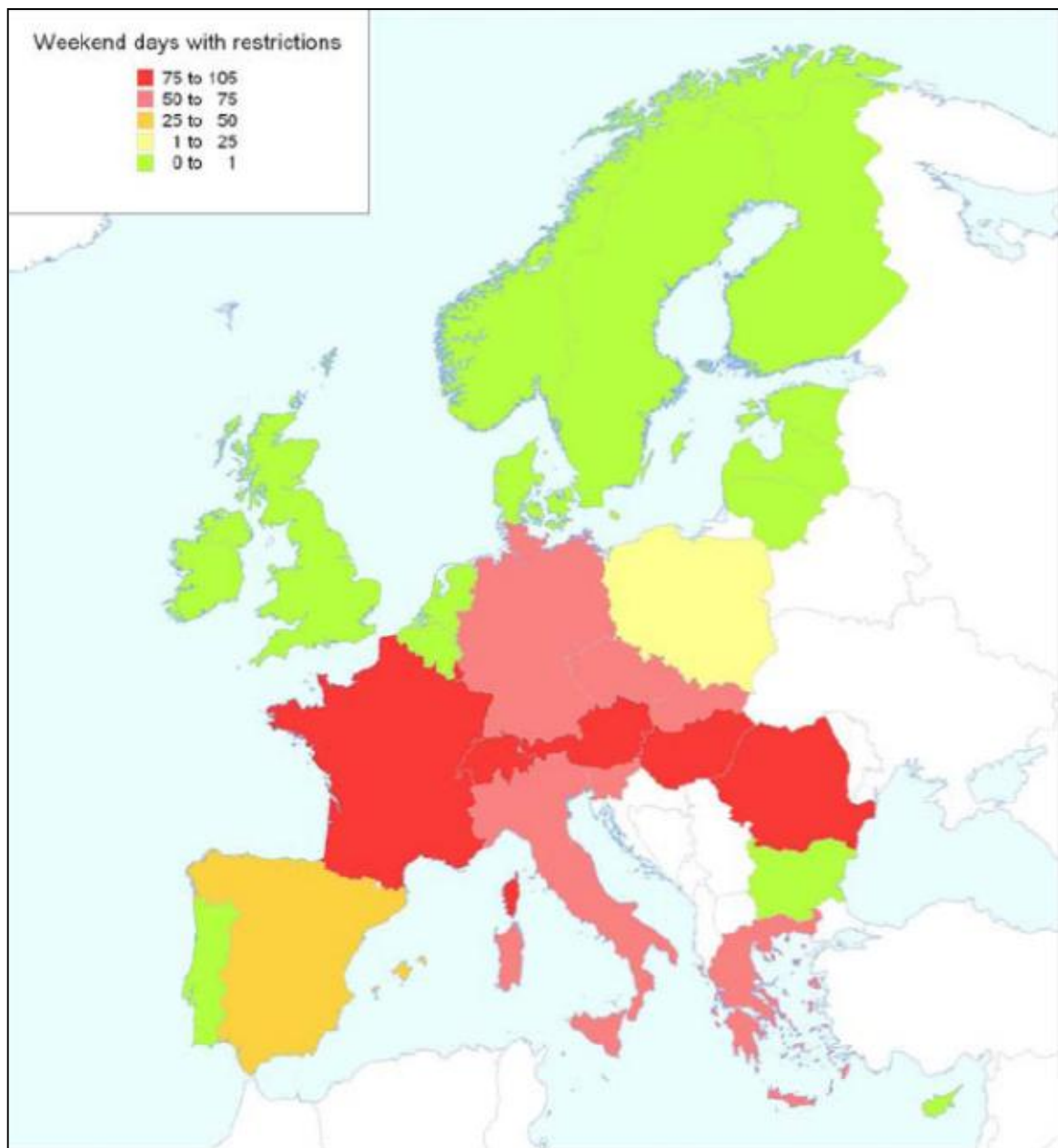


Figure 14.5 – Weekend Days With HGV Restrictions in Europe⁴⁷⁴

⁴⁷⁴ Cartographical Representation of HGV Driving Restrictions, 2012, *Croner*

The next section describes specific examples of the restrictions in place across Europe in order to further elaborate on how HGV bans operate in practice, and the impact different types of ban have on hauliers.

14.3.1 London Lorry Control

London Lorry Control is often mistakenly referred to as the Lorry Ban. Restrictions are in place on the use of heavy goods vehicles to help minimise noise pollution in residential areas during unsocial hours through restricted use of these roads. The Lorry Control Scheme takes the form of controls on the movement of any heavy goods vehicles over 18 tonnes maximum gross weight at night and weekends within the red boundary on the site map.

The restricted roads are often referred to as the "Excluded Roads" or the "Excluded Route Network" (ERN). The Scheme is administered by London Councils and failure to have exemption or breaching the permission conditions (for example, using the wrong route) are contraventions for which an operator could receive a penalty charge notice (PCN), and using an unapproved route within the area during the period of restriction is also a contravention.

The operator of any vehicle over 18 tonnes within the restricted area (excluding the bold highlighted roads) within the time restrictions below is required to apply for exemption for the vehicle:

- Monday - Friday: 9pm - 7am (including 9pm Friday night to 7am Saturday morning)
- Saturday: 1pm - 7am Monday morning

Journeys off the highlighted route network (ERN) within the restricted area and within the restriction times above must comply with the permission conditions. Routes can be submitted within the application or soon online once the new routing application has been released.

If part of a journey needs to be made on restricted roads then use of these roads must be kept to a minimum. In general, this will mean travelling to the closest point on the ERN than using the shortest direct route to the destination. The penalty charge is currently £550 for hauliers and £130 for drivers. These charges are reduced by 50% if paid within 14 days.⁴⁷⁵

14.3.2 Luxembourg

In Luxembourg, HGVs weighing over 7.5 tonnes are not permitted to drive on Sunday's until 9.45pm and on any public holiday until the same time. A fine of €250 is imposed for any vehicle breaking the law and parking in public areas is also prohibited.

14.3.3 France

Most heavy goods vehicles over 7.5 tonnes are banned from the French road and motorway network every weekend between the hours of 10pm Saturday and 10pm Sunday. This weekend truck ban is longer from early July to mid August, when HGVs are banned from Saturday 7am to Sunday 10pm. HGVs are also banned on public holidays, from 10pm the night before until 10pm on the holiday itself. The two big summer public holidays in France are 14th July and 15th August.

Further restrictions apply for HGV access to the Paris area, (Mondays and day following a public holiday, from 6 am to 10 am), and for HGVs leaving the Paris area (Fridays and days preceding a public holiday, usually from 4 pm). This means that trucks cannot transit via the inner ring road of Paris (Boulevard Périphérique) during these hours.

There are also extra weekend HGV bans on Alpine motorways in February.⁴⁷⁶

14.3.4 Germany

Truck bans can also be introduced as a result of their external impact on the surrounding area. In 2010 Germany re-imposed a night ban on trucks across Hesse as traffic noise has exceeded night-time limits of 62 decibels.

The previous truck ban for New Waldeck-Frankenberg, Schwalm-Eder, Marburg-Biedenkopf lapsed but was reintroduced for trucks weighing more than 3.5 tonnes on the federal highways B3 and B252 between 10pm and 6am.

⁴⁷⁵ About the London Lorry Control Scheme, 2012, *PIE Mapping* <http://www.londonlorrycontrol.com/llcs/aboutllcs>

⁴⁷⁶ Driving in France and French roads, <http://about-france.com/travel.htm#hgv>

The Federal Association of Road Haulage, Logistics, and Disposal (BGL) voiced its opposition to the ban along with businesses working in the area that must make lengthy detours which it claims will adversely impact the environment.⁴⁷⁷

Table 14.2 shows the variation in HGV restrictions across Europe.

Country	HGV Restriction
Austria	15h Saturday to 22h Sunday and holidays from 0h to 22h. Traffic ban on truck trailers weighing + 3.5t, and trucks and tractor-trailers weighing + 7.5t. Night traffic ban (on the A12 between Kufstein and Zirl) on pollutant combinations 0, 1 and 2 and on solo truck pollutants 0 and 1. Note: Exempt from night traffic ban on this route – Euro 5 vehicles. No longer exempt – Euro 4 vehicles.
Croatia	Sundays from 6h to 22h and eves of public holidays from 15h to 23h Vehicles +7.5t or + 14m long are prohibited from moving on the RN 2 between Varazdin and Dubrava Krizovljanska and on a dozen other roads.
Czech Republic	Sundays and public holidays from 13h to 22h. Ban on vehicles of + 5t PTA and trucks without trailers of over 3.5 tonnes from using highways, national roads and other roads classified 1st class.
France	From 22 pm Saturday or eves of public holidays to 22 am Sunday or public holiday Driving ban for heavy-load vehicles weighing over 7.5 tonnes. Mosel These vehicles may operate during the blackout periods to let them reach the Bettembourg terminal on the day of departure or arrival. Paris area Fridays from 16 am to 21 pm, day before public holidays from 16 am to 22 pm, Saturdays from 10 am to 18 pm, Sundays and holidays from 22 am to 24 pm Bans on certain portions of access to and exit from Paris, the Paris-Province, on the A6, A6b and A106, the A6a and A10, the A13, A12 Sundays and public holidays from 22h to 24h, Monday from 6 pm to 10 pm Vehicles may operate in the direction Paris-Province Saturdays February 13, 20, and 27 from 7 am to 18 pm and 22 pm to 24 pm (traffic allowed between 18 and 22h) and Sundays February 14, 21 and 28 at midnight 22h Additional prohibitions from using the Rhone-Alpes network.
Germany	Sundays and holidays from 0h to 22h Lorries weighing 7.5 tonnes and road trains (regardless of weight and even when empty) are banned on all roads and motorways.
Hungary	From September 1 to June 30, Saturday (or eve of public holiday) to Sunday 22h to 22h Traffic ban applies, but does not apply to Euro 3 vehicles and abroad between November 4 and March 1.
Italy	Sundays and holidays from 8 to 22h Driving ban on vehicles weighing more than 7.5 t. For vehicles from abroad or Sardinia, the ban is extended to 4 hours. It ends two hours earlier for vehicles bound for abroad.
Luxemburg	Saturday or eve of public holidays from 21h30 until Sunday or holiday at 21:45 Driving bans for trucks with the PTA that exceeds 7.5t, driving in the direction of France. For trucks driving towards Germany, the bans include Saturdays and eves of public holidays from

⁴⁷⁷ Hesse-wide night truck ban, Hess Transport Ministry, March 2010, reported by Hong Kong Trade Development Council (HKTDC) <http://www.hktdc.com/info/mi/a/spgz/en/1X06OYSE/1/Shipping-Gazette/Germany-Enforces-Hesse-Wide-Night-Truck-Ban.htm>

Country	HGV Restriction
	23:30 to Sunday or holiday at 21:45. Carriers travelling in Luxembourg are not affected.
Poland	Holidays from 8h to 22h and eves of public holidays from 18h to 22h Driving bans for trucks and road trains of + 12t.
Portugal	All year and, for some other areas, on Fridays, Sundays, public holidays from 18h to 21h Driving ban on vehicles transporting hazardous materials of over 3.5 t through the tunnels Gardunha of Barracao and Ramel (A 23). Every day from 17h to 2h the next day Traffic ban on the transport of dangerous goods on the April 25 Bridge (bridge over the Tagus River). However, the routes to Lisbon and Porto (towards the city) can be used on Mondays from 7h to 10h.
Romania	Weekdays between 5h and 22h and Saturdays, Sundays and holidays from 0h to 24h Driving ban for vehicles carrying hazardous goods. For vehicles of more than 7.5t, the driving ban on the roads is on holidays from 6h to 22h and, on the Bucharest-Ploiesti-Brasov route, Saturdays and Sundays from 0h to 24h. Vehicles of more than 5 tons can travel in the centre of Bucharest from 8h to 19h.
Slovakia	Year round on Sundays and holidays from 0h to 22h Traffic ban for vehicles of more than 7.5 tons on motorways, international and national roads classified 1st class.
Slovenia	Sundays and holidays from 8h to 21h, Saturdays from 6h to 16h, and Sundays and public holidays from 22h to 8h on some sections Driving ban for trucks and road trains of + 7.5 t on a number of roads.
Spain	Sundays and holidays from 8h to 24h and day before a holiday (not Saturday) from 13h to 24h Vehicles carrying hazardous materials or are empty and unclean can operate on all routes. Basque Region Eve of Saturday or holiday from 22h to Sunday or public holiday 22h Vehicles weighing more than 7.5 tons are banned from travel on most roads. However, for vehicles travelling in the France-to-Spain direction, movement of over 3.5 tonnes is allowed on Sundays and holidays on major traffic corridors, in particular, lines A8 and N11 in the wake of the Franco-Spanish Biriadou. Sundays and holidays from 20h to 24h and day before a holiday (except on Saturday) from 13h to 24h Driving ban for vehicles with hazardous materials of more than 3.5 t. Ask when traffic is open for sections of the corridor set up on roads A8, A15, AP68, N1, N1A, N240, N622, A1 and B1625. Catalonia Traffic ban hours are different on Saturdays and Sundays. On Saturdays from 22h to 24h, the + 7.5 t-vehicles and the sets can take the AP-7 between Agullana and the French border in the direction of France.
Switzerland	Sundays and holidays from 0h to 24h and every night from 22h to 5h Driving ban on the entire territory for trucks without trailer of + 3.5t PTA and articulated vehicles weighing more than 5t.
United Kingdom	Monday to Friday from 7h to 21h and Saturday from 13h to Monday 7h Driving bans for lorries of + 18t PTA on most roads in London.

Table 14.2 – HGV Restrictions in 17 European States⁴⁷⁸⁴⁷⁸ European Transport Registry, 2012, [http://www.europeantransportregistry.eu/annexe.php?inter#United Kingdom](http://www.europeantransportregistry.eu/annexe.php?inter#United%20Kingdom)

14.3.5 Impact of truck bans on hauliers

Truck bans on Europe's highways can have a significant detrimental impact on hauliers. For example, a driver of an HGV which has transported a consignment from the UK to Spain on a Saturday may find themselves obliged to remain in France for an extra day as opposed to returning on the Sunday. This has associated cost implications in order to both observe French highway regulations and EU Driver's Hours regulations.

The inconsistencies in truck bans across Europe (e.g. UK and the Netherlands do not have network-wide truck use restrictions at any time) also leads to confusion and can result in designated parking facilities becoming unable to cope with the number of trucks while they wait for the restriction to finish. The A1/A50 Motorway Netherlands/German border is one such location, which experiences HGVs queuing along it to access driver rest facilities on the Netherlands side of the border to avoid German HGV restrictions. These are often drivers of vehicles originating from Eastern Europe, who are obliged to wait in order to return through Germany.

14.3.6 Future Developments

The current economic climate has resulted in Governments proving less inclined to introduce measures that affect commerce and therefore it is unlikely that there will be further significant restrictions on the movement of road freight across Europe. There may, however be moves to introduce harmonization of the existing HGV bans in place across Europe, in order to prevent instances such as those on the Dutch-German border occurring.

14.4 Concluding Remarks

The growing awareness of the environmental impact of road transport, in terms of climate change and pollution has led to initiatives being introduced to encourage modal-shift from road to more sustainable transport modes and restrictions on vehicles entering the most polluted areas. Truck bans and LEZs have both been introduced at various locations in the EU to restrict the operation of trucks in certain areas and times for a variety of reasons, including noise, pollution, carbon emissions, and congestion.

This naturally has a significant impact on hauliers, who are required to revise their fleet of vehicles, accommodate higher operating costs due to tariffs and rerouting, amend work schedules, and reassign deliveries. And whilst these measures impact on all operators serving a particular market, they can have significant cost implications and thus a wider economic impact and there can be secondary effects, such as the displacement of older more polluting vehicles to other locations and operations. Thus when authorities are planning curfews and restrictions the totality of their affects must be fully considered.

Similarly, the requirement of local authorities to manage scarce highway space in urban areas has resulted in a plethora of parking and loading restrictions and effective enforcement regimes. This ensures that delivering consignments to urban areas by road can be difficult and in some cases costly, affecting profitability and delivery times.

In addition, the lack of harmonisation across the EU makes it difficult to effectively plan deliveries when operating internationally, affecting cross-border operations.

15 Conclusions

15 Conclusions

15.1 Introduction

In this Task A report on Collection and Analysis of Data on the Structure of the Road Haulage Market we have sought not only to identify the nature of the European road haulage market through an analysis of activity, structure and operational issues, but also to identify and comment on the causal factors that influence the market, in either a positive or detrimental manner. Many of these themes have been identified through the direct engagement of the industry, as well as via the work of the High Level Group and its investigation of shipper, forwarder and haulier issues. They will be pursued through to the next project phase (Task B Analysis of the State of the EU Road Haulage Market, including an Evaluation of the Effectiveness of Controls and the Degree of Harmonisation) and ultimately form the basis of the development of policy interventions going forward.

15.2 Market Situation

The European road freight sector enjoyed spectacular growth between 1995 and 2007, with activity as measured by tonne/km almost tripling within the period. Growth was faster in the EU-12 compared to the EU-15, although the vast majority of activity in road transport still remains within Western Europe.

The economic crisis of 2007/8 precipitated a sharp decline in activity that brought the road haulage sector into a situation of overcapacity. There was a fall of 2% in 2008 and another 10% drop in 2009 as measured in tonne/km. In general, the road freight industry is now a demanding environment across the EU due to such factors as rising fuel prices, disparate cost structures and rising customer power in contracting.

In 2010, road freight transport activity in Europe recovered slightly and rose 3%. Nevertheless activity in the EU is still about 9% below pre-crisis levels of 2007.

Furthermore, the modest recovery has not been uniform as the last few years have seen a significant difference in the fate of those hauliers within the EU-15 compared to the EU-12: EU-15 hauliers were on average still 13% below 2007 levels in 2010, but their colleagues from the EU-12 were on average already 8% above pre-crisis levels by 2010.

Romania has experienced the sharpest fall in activity of all states (50% between 2007 and 2010), but it is atypical. Those EU Member States that were most successful in recent years have been other EU-12 States such as Poland, Bulgaria, Slovakia and the Czech Republic. The vast majority of countries that saw a decline were Western European countries such as Austria, the Netherlands, Denmark, Ireland, Belgium, France, Spain, and Portugal. The newer Member States that have been winning market share in international activity, especially with Austria, the Netherlands, Denmark, France and Belgium.

The largest market segments within the EU are the national markets (i.e. transport that does not involve a border crossing) that are carried by domestic hauliers. These national markets (that exclude cabotage undertaken within that country) account for 67% of all road freight transport in the EU. In the EU-15 the proportion is 78%, and the national markets of Germany, France, Spain, Italy and the United Kingdom account for 80% of all national markets within the EU. Not surprisingly, protecting these markets from competition from domestic hauliers and foreign firms that seek to address the markets through cabotage is a key concern of hauliers.

In line with the overall project plan, further discussion on the market situation is developed in Task B. Our review here has shown that whilst the road freight haulage industry provides a cost effective service that serves a wide range of markets and sectors and extensive sub-contracting practices provide a responsive resource, the level of fragmentation in the market leads to an imbalance in the ability of small operators to fully recover costs such as fuel price increases and make long term investment in the professional development of staff and technical innovations.

Labour is a significant proportion of total haulage costs and varies significantly between the EU-12 and EU-15. Hauliers can exploit this differential in both domestic markets and cross-trade markets if foreign drivers are employed at below market rates. However collective bargaining labour laws prevent this from happening in certain countries, for example the Netherlands but not in others, such as the UK.

Low levels of investment, a long hours culture, extended periods away from home and poor career progression mean that international haulage is an increasingly unattractive profession and despite EU enlargement and the economic downturn driver shortages are widely reported.

Ultimately, the cost difference between Member States can mean that vehicles, labour and fuel resources are not always used in the most economically efficient way but in the cheapest way – this is bad for sustainability and can lower quality. It may be cheaper to use one haulier but in practice it would be more efficient to organise through load sharing.

15.3 Enforcement

There is a wide ranging set of legislation that affects the sector, referring comprehensively to vehicles, drivers, operations and the overall market place. However, some legislation is quite dated and is applied to an industry sector that has evolved rapidly in terms of both structure and technology.

Hauliers are naturally reticent to comment on the likely levels of illegal running. Comments from German hauliers suggest that the authorities clamp down hard on illegality and hence it is reasonably uncommon, however in other territories, including Poland and the UK commentators have stated that illegal action was quite widespread. Anecdotal evidence presented to the study team suggests that it may constitute about 10% of haulage activities although most of the larger logistics companies are tightly controlled and have 'tidied their act up'.

The issue of 'chain of command responsibility' remains unresolved, in particular with regard to the forwarding industry where hauliers feel pressured into breaking regulations through short delivery deadlines set by forwarders that cannot be currently held responsible.

Lack of harmonisation in enforcement across Member States remains a considerable issue for hauliers and the Commission is indeed advocating a standardised approach to the training of enforcement officers across Member States in order to facilitate a standardised application of legislation. The Commission is also advocating the exchange and distribution of information more systematically across enforcement agencies.

However, the interpretation of EU rules needs revisiting across the EU-27 and the use of case study examples of how the various laws should be factored is important. The margins for error need to be agreed if there are any. For example; 'Is three minutes over on a Drivers' Hours time infringement acceptable or not?' Evidence suggested that whilst this might be given a verbal warning in Germany it would command a hefty fine in France.

Similarly there needs to be agreement on an acceptable and appropriate level of fines. In some countries there are five levels of fines with serious overloading being a Level 5 offence and hence would incur the highest level of fines, whereas a neighbouring state would attach a much lower fine. A common system of recording infringements by operators across Europe and full transparency to check haulier records for details of offences regardless of which country the incident happened is currently not available.

15.4 Driver Rest Areas and Vehicle Crime

Lorry parks provide an essential service to the road freight industry. They are important in terms of road safety, preserving local amenities, reducing crime, and addressing the general needs of HGV drivers' dignity. They also help to ensure seamless compliance with the European Union (EU) Drivers' Hours Rules. Research has indicated that drivers who choose to park overnight in lay-bys often do so in order to save on the cost of parking in a lorry parking facility, either because the use of secure parking is not reimbursed, because the decision is in the drivers' hands or because a suitable TPA is unavailable. There appears to be disparity between Member States' perceptions of these issues. The availability of widely available, good and secure parking varies on a Member State basis and a shortage was reported in Germany, Poland and southern England.

15.5 Costs

Hauliers face many costs as a result of their operation, with drivers and fuel being the two largest expenses. Both fuel and driver costs can vary throughout the Member States and can often vary significantly enough to compel hauliers to flag out from their original base in one Member State to the cheaper Member State.

Hauliers pay direct and indirect taxes. Direct taxation of a haulage operation includes vehicle excise duty whereas indirect taxation includes taxes that are paid by hauliers but are not directly targeted at the road haulage industry, such as fuel duty and road user charging. Taxation is usually set by individual Member States and like fuel and driver costs is not yet harmonised throughout the European Union.

It should be noted that Member States that have higher fuel costs tend to have higher driver wages. For example Denmark has higher than average driver wages as well as higher than average fuel costs. Conversely, Poland has lower than average driver wages and also lower than average fuel costs. By way of comparison, Denmark has a higher than average GDP whereas Poland has a lower than average GDP. This suggests that there is a link between the level of transport costs and the level of wealth of a Member State.

Hauliers in the hire and reward market are often price takers rather than price makers for highly competitive work that yields low profit margins. For this reason, hauliers are always looking at ways to improve margins by reducing operational cost. Efforts have been made in areas such as reducing empty running, outsourcing unprofitable work and sourcing cheaper fuel.

However, the fragmented structure of the road haulage sector makes it difficult to separate innovative practises and increased productivity from unethical or even illegal activity that constitutes the use of lower cost labour. The potential for the use of lower cost labour exists where operators are leveraging the difference in pay costs and conditions between Member States' labour markets to gain competitive advantage.

15.6 Contracting

Recent years has seen the rise in size and importance of pan European logistics providers such as DHL, Schenker and Norbert Dentressangle. Companies such as this provide complete transport solutions but most rely heavily on subcontracting work to smaller entities and owner-drivers who provide low margin traction only services. There are several types of relationship and dependencies, including small hauliers that work exclusively for the larger company, others that do a significant amount and those that do an occasional load on the 'spot' market.

Subcontracting in transport is done for many reasons including; cost saving; covering a peak in demand; a particular service not suited to the main operation; a specialised cargo requirements and; serving a particular destination or region, particularly where there is little prospect of a backload. Companies will out-source non-profitable work to smaller companies, particularly in Eastern Europe. They are able to do this because these companies may have lower operating costs which in turn allow them to turn a profit on the cheaper job. Whilst extensive subcontracting practices provide a responsive resource, this level of fragmentation in the market can lead to an imbalance in the ability of small operators to fully recover costs such as fuel price increases. Fuel surcharge agreements are on some contracts but they can be difficult to action. Payment terms, where the buyer takes longer to pay the carrier, has been a feature of the industry in the last decade, and this situation has been exacerbated by the economic recession.

It is difficult to establish the exact extent of sub-contracting in the road haulage industry, it can be seen from interviews conducted by the study team with hauliers that some are entirely reliant on the outsourcing of traction, whilst others entirely win their own work directly from shippers and carry out the work with their own vehicles and drivers. From this 'snap shot' of operations we can estimate that overall perhaps 30% of European haulage business is sub-contracted. The freight forwarding sector suggests that it is responsible for two-thirds of all European road cargo.

Whilst terms and conditions between the shipper and carrier are laid down by the international CMR Convention, and evidenced during transport by a CMR consignment note, much 'business' (up to 40% in countries like the Netherlands) is conducted 'on trust' and without contract. Where there is a contract, most are relatively short term – typically for one year and there is a general trend towards shorter term contracts. Although the lack of a long term contract or indeed any contract at all may generally be alright because most business relationships work on trust, the ability to obtain a formal, longer contract could enable the transport company to secure funding to invest in more modern systems, new warehousing and equipment. This lack of certainty for the future is inhibiting investment in innovation.

15.7 Cabotage

There is a major difference in opinion on the way forward with cabotage and even though it depends on the haulier and the type of niche market the company is in, some general conclusions are apparent. French, German and Danish haulage interests are amongst those wishing to keep the cabotage rules as they are. Polish, Romanian and Hungarian operators are amongst those that would be happy with further deregulation to potentially remove restrictions completely. Opinion is thus divided between member states and even within the haulage community within a country.

The “three in seven” rule introduced in 2010 has not been operating very long and has been interpreted differently in various countries. It is too early to decide if this derogation will have the desired effect of making sure operators are as efficient as possible and are not taking too much work away from domestic operators. Several examples of the interpretation of the new rules show that it is unclear. A car transporter company moving just one load of nine cars to three different dealers is judged as needing to revert to international work. The reason for this is that the driver will have three different consignment/delivery notes and hence, if the vehicle did any more, an enforcement officer could say it was the fourth load and a contravention of the rules.

Similarly the movement of empty trailers or containers to the border or port would be counted as a load even though it was not a revenue earning movement. There is a need to spell out what is acceptable so that hauliers and enforcement officers interpret the law correctly.

Without full liberalisation of the market, the addressable cabotage market will remain limited in most instances to traffic suited to carriage by standard international freight vehicles. However, the volume of cabotage operations has increased substantially in the last 10 years.

Whilst cabotage operations can help hauliers to improve their fleet and vehicle efficiency, it can in certain cases have a negative impact on domestic road haulage markets. Not only do foreign hauliers exert market influence by capturing market share from domestic operators, but that their very presence in the marketplace can to some extent also depress haulage rates on particular routes. Many of our haulier interviewees recounted instances of alleged illegal cabotage operations and indeed the current rules do seem to present enforcement challenges.

15.8 Road User Charging

The lack of interoperability between systems is a major issue and is costing operators time and money. The need to have more than one recording system on the dashboards of vehicles is sub-optimal. Even the new systems being introduced as recently as July 2011 in Poland are using different technology and have varying levels of charges depending on ownership of the roads. It is known that the new charging system is prompting some hauliers to continue to use the old roads which is counterproductive.

It is suggested that the varying introduction of charges based on Euro engine is also causing an unforeseen reaction by operators as many of the older vehicles are used on Belgian and French work leaving the newer vehicles to be used on German work. In the longer time it is clear that a technology distance based charging system that is fair is the most likely to be acceptable across Europe.

15.9 Drivers and Staff

Driver shortages are a fundamental problem in the road haulage sector in the EU. There are latent skills and age gaps that threaten to seriously distort the future market. In addition, the market itself is currently unattractive to new, younger entrants. Policy measures have sought to build on minimum legal requirements through training (Driver CPC); however this is not generating the job benefits that may induce new employees. While the Working Time directive has sought to improve safety within the sector, the industry still perceives it as a barrier to activity and a limit to the higher remuneration of its drivers, similarly, with national service having been rescinded the pipeline of new drivers looks increasingly limited against an aging driver population.

To address the issues, training must reflect the needs of the employers whilst achieving wider Member States' objectives, but crucially, must seek to address the issue of driver training funding for new recruits – either through apprenticeship, or through an alternative funding mechanism.

Only a small number of countries offer incentives to mitigate the cost of obtaining a C+E Driving Licence which typically costs 2,000-3,000 Euros to obtain. There is pressure at the Eastern side of Europe to recruit drivers from outside of the EU. This is understandable but is short-sighted as there is severe unemployment in many parts of Europe. Allocating a moderate sum of money from the unemployment payment budgets to facilitate training of drivers is likely to offer dividends in the medium term.

In the same way as Transport Managers have to study an extra syllabus for international operations compared to national, it seems appropriate that international truck drivers also have to study extra information in order to give them a level of professionalism when visiting other countries. This training could be as part of the Driver CPC and lead to an additional qualification such as C+E+I where I equals the international licence. This could be phased in using grandfather rights to those who have been driving in Europe for years. The proposal is likely to be beneficial in reducing the number of incidents on the roads.

Whilst education is an effective way of reducing the level of accidents, it is also a good way of giving additional status and marketability to an international lorry driver. In the longer term this should help enhance the average wage of an international driver and make the job more attractive as a result thus partially stemming the exodus of drivers from the sector. Currently some drivers choose to work in warehouses or retail stores as the pay is better and they are at home every day.

Cross-border employment of drivers is an important trend with regard to drivers and staff. There is a perception that some aspects of competition induced by cross-border employment of drivers are unfair, and potentially even illegal. The available evidence suggests that there is at least the potential for such activity however the only general certainty with regard to much of the competitive activity in the market is that much of it is legal if unpopular in certain quarters.

The 'Posted Workers Directive' may provide a model for addressing a particular issue of lower cost labour. This would reduce the cost advantage enjoyed by hauliers from "low cost" Member States in carrying out international road haulage and cabotage operations. It was anticipated that this important piece of Commission's policy framework could support the concept of a cabotage system based on controls for the driver rather than the vehicle. However, it is apparent for this Directive that in terms of its scope and national application the Directive does not actually adequately facilitate this measure.

15.10 Vehicle Specification and Technology

The road freight sector adapts well to rules and regulations and specifies a wide variety of vehicles to meet the needs of its customers. On reflection, it is probably time that Directive 1996/53/EC⁴⁷⁹ on weights and dimensions in road transport should be reviewed, including an evaluation of the aspect of eco-combi and transport on 44 tonnes trucks in all cross-border transport, as permitted in the Benelux countries for many years. Developments suggest that there is growing support for 25.25 metre trailers albeit there will be a limited market for them mainly in motorway trunking. The positive field tests on vehicle use, infrastructure capacity, etc have lessons for Europe. But at the same time the EU has set ambitious targets for a growth in rail freight and this should not be undermined by other interventions without careful thought.

There are plenty of other ways of using the vehicles more efficiently in terms of improving the percentage of time vehicles are on the road actually moving goods rather than being in yards waiting for tipping or just not in service. The dissemination of "Best Practice" case studies in operational matters should help industry to share improvements.

Competition has seen an increase in innovation in a number of sectors in the road haulage market, particularly in relation to Just in Time logistics. There are opportunities to improve fleet efficiency in a variety of ways such as load matching, vehicle scheduling systems, fuel management systems and newer, more efficient vehicles. However, uptake of these technologies is not universal with a lack of access to finance or ability to scope out and implement improvements particularly hampering small and medium sized hauliers.

⁴⁷⁹ Directive 1996/53/EC - laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international Traffic.

15.11 Other Comments and Observations

The awareness of the environmental impact of road transport has led to initiatives being established. Truck bans and LEZs have both been introduced at various locations in the EU to restrict the operation of trucks in certain areas and times. This can have a significant impact on hauliers, who are required to revise their fleet of vehicles, accommodate higher operating costs due to tariffs and rerouting, amend work schedules, and reassign deliveries.

Similarly, the requirement of local authorities to manage scarce highway space in urban areas has resulted in a plethora of parking and loading restrictions and effective enforcement regimes. This ensures that delivering consignments to urban areas by road can be difficult and in some cases costly, affecting profitability and delivery times.

The lack of harmonisation across the EU makes it difficult to effectively plan deliveries when operating internationally, affecting cross-border operations.

15.12 Closing Remarks

The work undertaken in this Task A stage of the project research is an important step in the work towards the completion of Task B where AECOM will further analyse the state of the EU road haulage market, including an evaluation of the effectiveness of controls and the degree of harmonisation. This analysis will include an assessment of:

- The market situation
- The evolution of the effectiveness of controls in the road haulage sector, in particular checks of compliance with the cabotage rules
- The evolution of employment conditions in the road haulage profession
- The level of harmonisation in enforcement
- The level of harmonisation in road user charges
- The level of harmonisation in social legislation
- The level of harmonisation in safety legislation

Much of the analysis carried out for Task B will be based on the information gathered for Task A and reported here. The supplementary data gathering required for Task B is being carried out in parallel with Task A. The research database produced to carry out the Task A research also contains the topics and questions that are specifically relevant to Task B. The database now contains all of the material relevant to Task B from the documents reviewed to date. In addition to this significant amount of desk research, the consultation interviews carried out as part of Task A and the HLG Survey provide industry feedback relevant to Task B. The remaining work in Task B is a gap analysis followed by targeted research to fill any gaps in our knowledge. The analysis and evaluation of this data will be completed in parallel with this data gathering.

The results of this Task will allow the Commission to make an obligatory report to the European Council and European Parliament. It is clear that there are many dynamic forces at work and as a major stakeholder the Commission has a pivotal role in influencing the conditions within which industry operates. It does of course have a wide range of policy interventions available to it, ranging from the 'soft' measures aimed at bringing about a shift in behaviours through persuasion and facilitation, through to the means to pressure or require changes by imposing prices or using regulations.

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Appendices

Appendix 1: Statistical Tables

Load/Unload	Belgium	Bulgaria	Czech Republic	Denmark	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Cyprus	Latvia	Lithuania	Luxembourg	Hungary	Malta	Netherlands	Austria	Poland	Portugal	Romania	Slovenia	Slovakia	Finland	Sweden	United Kingdom	Total
Belgium	:	:	865	288	7,367	:	29	:	2,771	9,020	1,913	:	75	287	666	359	:	3,294	502	2,556	451	476	121	360	:	130	556	32,086
Bulgaria	:	:	:	:	1,307	:	:	614	:	421	674	:	:	:	:	173	:	:	:	:	271	:	:	:	:	:	:	3,460
Czech Republic	527	:	:	119	5,587	:	:	:	1,066	1,191	1,795	:	89	95	:	591	:	616	885	1,803	:	304	212	1,491	104	293	751	17,519
Denmark	204	:	144	:	2,391	:	:	:	491	374	518	:	:	46	:	108	:	476	124	1,117	:	:	47	:	57	762	92	6,951
Germany	6,773	316	4,992	2,617	:	267	91	693	9,205	13,135	10,465	3	467	1,097	942	2,885	:	10,058	8,321	16,078	1,883	1,852	942	2,139	111	1,232	3,067	99,631
Estonia	75	:	:	:	322	:	:	:	:	120	164	:	168	184	:	:	:	104	:	163	:	:	:	:	83	57	:	1,440
Ireland	:	:	:	:	60	:	:	:	79	156	117	:	:	:	:	:	:	52	:	139	:	:	:	:	:	:	572	1,175
Greece	:	561	:	:	285	:	:	:	:	:	198	9	:	:	:	54	:	:	96	304	:	338	:	:	:	38	:	1,883
Spain	1,842	:	1,060	552	10,298	:	:	:	:	14,233	5,814	:	187	289	:	458	:	3,136	749	3,665	5,970	226	213	375	266	376	3,032	52,741
France	7,029	:	1,118	469	11,279	:	129	:	13,018	:	7,859	:	158	476	551	509	:	2,718	806	3,968	1,716	1,024	481	643	:	95	2,250	56,296
Italy	1,308	171	1,536	458	11,330	81	97	307	4,738	8,849	:	1	206	604	141	1,028	:	1,177	2,553	3,911	1,130	1,203	883	820	:	251	2,301	45,084
Cyprus	:	:	:	:	2	:	:	2	:	:	:	:	:	:	:	:	:	:	1	:	:	:	:	:	:	2	3	10
Latvia	152	:	60	40	775	240	:	:	111	330	471	:	:	295	:	:	:	239	:	411	:	:	:	:	:	62	:	3,186
Lithuania	130	:	87	119	1,041	210	:	:	:	398	423	:	259	:	:	87	:	318	73	594	:	:	:	:	33	72	131	3,975
Luxembourg	294	:	:	:	711	:	:	:	187	664	165	:	:	:	:	34	:	158	66	182	:	:	:	:	:	:	72	2,533
Hungary	235	93	522	92	2,406	:	:	35	519	578	1,724	:	:	99	26	:	:	381	657	962	77	644	298	488	:	88	359	10,283
Malta	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	-
Netherlands	3,754	:	977	764	12,430	77	62	84	2,491	4,864	2,240	16	148	368	169	589	:	:	786	3,463	370	405	211	286	101	679	1,072	36,406
Austria	383	88	712	80	6,799	:	:	77	611	1,027	3,848	:	:	:	35	566	:	507	:	936	:	271	412	404	:	201	311	17,268
Poland	1,914	:	1,701	922	15,150	321	120	326	2,265	4,308	3,204	:	365	862	81	970	:	2,381	975	:	274	836	259	1,029	183	992	3,207	42,645
Portugal	345	:	209	:	2,329	:	:	:	5,047	2,344	896	:	:	:	:	49	:	519	:	294	:	:	:	:	:	:	250	12,282
Romania	274	264	127	:	1,861	:	:	244	303	1,064	1,311	:	:	:	:	462	:	353	376	465	:	:	46	54	:	65	531	7,800
Slovenia	124	:	162	46	992	:	:	:	114	497	1,057	:	:	:	:	343	:	197	391	268	:	63	:	194	:	:	189	4,637
Slovakia	273	:	1,265	:	2,286	:	:	:	301	832	1,434	:	:	:	:	639	:	394	603	951	:	193	115	:	:	70	227	9,583
Finland	:	:	:	150	111	88	:	:	125	55	:	:	19	58	:	:	:	68	:	150	:	:	:	:	:	1,389	:	2,213
Sweden	106	:	282	623	1,197	48	:	:	342	114	288	:	36	96	:	111	:	554	172	1,160	:	:	:	99	1,219	:	6,447	
United Kingdom	472	:	450	43	1,846	:	531	:	1,348	1,492	1,148	1	:	287	15	357	:	544	243	2,006	204	283	84	190	:	38	:	11,582
Total	26,214	1,493	16,269	7,382	100,162	1,332	1,059	2,382	45,132	66,066	47,726	30	2,177	5,143	2,626	10,372	-	28,244	18,379	45,546	12,075	8,389	4,324	8,572	2,157	6,892	18,973	489,116

Table A.1 - International – Bilateral Trade between EU-27 Member States, 2010, Million Tonne Kilometres⁴⁸⁰

⁴⁸⁰ Eurostat, [road_go_ia_tc] 2012, Eurostat

Load/Unload	Belgium	Bulgaria	Czech Republic	Denmark	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Cyprus	Latvia	Lithuania	Luxembourg	Hungary	Malta	Netherlands	Austria	Poland	Portugal	Romania	Slovenia	Slovakia	Finland	Sweden	United Kingdom	Total
Belgium	:	:	818	321	19,293	:	31	:	1,782	31,109	1,674	:	40	161	3,873	241	:	19,305	476	2,115	226	252	95	258	:	137	1,054	83,261
Bulgaria	:	:	:	:	550	:	:	1,084	:	159	500	:	:	:	:	183	:	:	:	:	:	742	:	:	:	:	:	3,218
Czech Republic	511	:	:	111	12,013	:	:	:	479	1,004	1,690	:	64	75	:	1,088	:	605	2,972	4,628	:	269	317	5,096	58	246	472	31,698
Denmark	219	:	120	:	5,840	:	:	:	208	283	323	:	:	45	:	68	:	652	93	1,033	:	:	32	:	56	1,957	73	11,002
Germany	19,850	167	9,959	5,918	:	140	70	361	5,306	25,620	12,406	2	285	736	5,582	2,797	:	37,320	19,429	23,111	781	1,210	1,072	2,126	107	1,622	3,198	179,175
Estonia	36	:	:	:	177	:	:	:	:	49	60	:	502	308	:	:	:	47	:	147	:	:	:	:	270	129	:	1,725
Ireland	:	:	:	:	55	:	:	:	45	166	69	:	:	:	:	:	:	48	:	61	:	:	:	:	:	:	2,429	2,873
Greece	:	932	:	:	141	:	:	:	:	:	204	19	:	:	:	40	:	:	65	151	:	289	:	:	:	17	:	1,858
Spain	1,160	:	480	239	5,607	:	:	:	:	18,296	4,061	:	56	93	:	194	:	1,699	354	1,470	10,466	76	104	160	82	141	1,592	46,330
France	22,435	:	933	367	21,318	:	158	:	18,292	:	10,500	:	66	206	2,463	316	:	4,963	738	2,557	1,037	475	366	434	:	64	3,420	91,108
Italy	1,171	126	1,434	294	13,202	30	51	326	3,400	11,711	:	1	87	281	156	1,083	:	888	4,647	2,675	498	784	2,508	755	:	150	1,369	47,627
Cyprus	:	:	:	:	1	:	:	8	:	:	:	:	:	:	:	:	:	:	-	:	:	:	:	:	:	1	1	11
Latvia	78	:	44	36	458	847	:	:	37	144	198	:	:	1,272	:	:	:	125	:	484	:	:	:	:	:	116	:	3,839
Lithuania	76	:	72	78	705	346	:	:	:	190	197	:	922	:	:	65	:	182	46	963	:	:	:	:	35	136	58	4,071
Luxembourg	1,899	:	:	:	3,032	:	:	:	124	3,060	186	:	:	:	:	26	:	477	76	140	:	:	:	:	:	:	82	9,102
Hungary	158	98	976	59	2,385	:	:	27	209	365	1,982	:	:	85	20	:	:	260	2,486	1,483	24	1,661	797	2,244	:	56	180	15,555
Malta	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	-
Netherlands	22,180	:	957	988	35,779	36	69	33	1,450	8,251	1,770	5	79	221	485	390	:	:	745	3,037	149	192	158	196	107	689	1,667	79,633
Austria	381	58	2,252	61	14,389	:	:	59	300	998	7,498	:	:	:	45	1,981	:	487	:	1,151	:	279	1,576	1,426	:	133	226	33,300
Poland	1,551	:	4,769	925	24,003	317	54	135	877	2,801	2,169	:	423	1,701	74	1,432	:	2,143	1,301	:	89	748	303	2,547	157	1,358	1,881	51,758
Portugal	180	:	76	:	1,007	:	:	:	8,873	1,479	397	:	:	:	:	16	:	240	:	104	:	:	:	:	:	:	114	12,486
Romania	152	470	111	:	1,134	:	:	157	103	492	820	:	:	:	:	1,410	:	169	323	430	:	:	43	72	:	31	212	6,129
Slovenia	95	:	224	30	1,118	:	:	:	58	388	3,205	:	:	:	:	682	:	148	1,707	287	:	60	:	317	:	:	105	8,424
Slovakia	180	:	4,563	:	2,289	:	:	:	130	541	1,257	:	:	:	:	3,001	:	300	1,943	2,447	:	271	181	:	:	52	116	17,271
Finland	:	:	:	98	116	242	:	:	51	43	:	:	30	67	:	:	:	79	:	120	:	:	:	:	:	2,725	:	3,571
Sweden	107	:	235	1,585	1,530	110	:	:	132	78	161	:	60	148	:	71	:	592	116	1,609	:	:	:	67	2,089	:	:	8,690
United Kingdom	937	:	279	36	1,918	:	2,180	:	756	2,528	693	-	:	128	20	174	:	901	163	1,133	94	112	47	97	:	25	:	12,221
Total	73,356	1,851	28,302	11,146	168,060	2,068	2,613	2,190	42,612	109,755	52,020	27	2,614	5,527	12,718	15,258	-	71,630	37,680	51,336	13,364	7,420	7,599	15,795	2,961	9,785	18,249	765,936

Table A.2 - International – Bilateral Trade between EU-27 Member States, 2010, Thousand Tonnes⁴⁸¹

⁴⁸¹ Eurostat, [road_go_ia_tc] 2012, Eurostat

Load/Unload	Belgium	Bulgaria	Czech Republic	Denmark	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Cyprus	Latvia	Lithuania	Luxembourg	Hungary	Malta	Netherlands	Austria	Poland	Portugal	Romania	Slovenia	Slovakia	Finland	Sweden	United Kingdom	Total
Belgium	15,797	62	1,703	2,551	32,026	234	109	689	5,034	23,054	11,806	2	301	742	835	1,667	2	8,293	8,309	1,025	481	870	308	1,322	233	1,513	6,413	125,381
Bulgaria	51	2	94	251	6,586	6	2	48	271	5,602	689	0	0	25	190	35	0	1,177	336	55	30	81	13	70	4	107	616	16,341
Czech Republic	0	0	0	0	7	0	0	23	0	0	12	0	0	0	0	37	0	1	6	7	0	0	0	0	0	0	0	93
Denmark	66	2	0	14	943	39	2	0	37	111	350	0	29	0	0	160	0	105	380	13	3	43	32	72	12	20	58	2,491
Germany	162	9	24	2	867	1	1	0	169	169	259	0	0	1	2	35	0	290	73	12	0	15	2	0	8	250	54	2,405
Estonia	6,839	11	623	814	155	23	8	231	1,503	8,041	3,663	0	46	204	196	580	0	3,081	4,102	160	166	178	51	448	44	553	1,896	33,616
Ireland	0	0	5	0	33	0	0	0	10	20	8	0	21	37	0	4	0	0	4	0	0	0	0	0	13	5	0	160
Greece	0	2	0	0	6	4	0	5	0	9	0	0	0	0	0	2	0	14	0	7	0	0	0	0	0	0	14	63
Spain	0	12	4	11	53	0	0	0	10	12	159	2	0	0	0	6	0	5	56	14	0	194	0	3	0	3	5	549
France	245	0	31	164	1,588	15	0	33	18	1,605	484	0	18	30	3	20	0	244	198	163	41	21	5	42	33	28	295	5,324
Italy	5,232	0	125	273	6,723	0	50	10	1,825	31	1,909	0	31	32	227	61	2	1,788	484	96	91	26	33	103	1	47	2,060	21,260
Cyprus	492	7	218	257	4,371	4	6	236	423	2,220	91	0	14	57	55	187	0	366	1,424	224	112	67	35	77	10	108	842	11,903
Latvia	23	2	0	11	119	21	0	0	16	35	62	0	0	7	0	14	0	22	9	18	0	5	0	4	12	2	6	388
Lithuania	4	0	0	0	24	38	0	0	4	11	0	0	6	0	0	0	0	0	0	17	0	0	0	0	5	10	0	119
Luxembourg	227	0	0	16	195	0	0	0	9	203	39	0	0	1	0	0	0	46	49	12	0	0	0	0	0	5	38	840
Hungary	18	2	78	14	244	10	0	0	22	23	323	0	25	61	0	5	0	64	150	18	3	56	7	110	0	17	22	1,272
Malta	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Netherlands	1,174	0	143	331	4,054	3	2	13	228	2,338	456	0	26	65	96	116	0	19	369	22	5	28	14	35	12	157	265	9,971
Austria	208	4	140	43	3,320	24	0	41	156	738	2,278	0	0	64	32	113	0	243	90	57	0	58	71	177	6	72	153	8,088
Poland	48	5	39	17	228	22	0	2	33	53	64	0	52	39	2	36	0	95	64	5	5	15	10	41	17	18	16	926
Portugal	7	0	3	1	36	0	0	0	18	60	15	0	0	0	0	0	0	5	3	2	0	0	0	0	0	2	4	156
Romania	11	5	9	8	116	0	0	24	4	3	35	0	0	0	0	22	0	0	78	18	1	1	0	16	0	4	2	357
Slovenia	12	0	22	3	46	0	0	0	2	3	108	0	0	0	0	33	0	4	52	4	0	0	0	49	0	0	2	340
Slovakia	24	0	74	16	464	4	0	7	29	78	196	0	6	38	0	131	0	98	200	41	11	64	11	5	4	38	10	1,549
Finland	3	0	0	12	29	12	0	0	4	7	2	0	12	23	0	11	0	5	0	0	0	3	0	19	0	37	0	179
Sweden	76	0	33	268	634	3	0	0	53	42	113	0	11	9	18	25	0	188	44	38	4	7	17	37	51	8	18	1,697
United Kingdom	872	0	34	24	1,184	5	37	16	191	1,635	495	0	4	52	17	34	0	428	131	19	7	11	2	15	0	22	36	5,271
Total	31,593	125	3,402	5,101	64,051	468	217	1,378	10,069	46,103	23,616	4	602	1,487	1,673	3,334	4	16,581	16,611	2,047	960	1,743	611	2,645	465	3,026	12,825	250,741

Table A.3 - International – Cross-Trade between EU-27 Member States, 2010, Thousand Tonnes⁴⁸²

⁴⁸² Eurostat, [road_go_cta_gtt] 2012, Eurostat

caboteur/territory	Belgium	Czech Republic	Denmark	Germany	Estonia	Ireland	Greece	Spain	France	Italy	Latvia	Lithuania	Luxembourg	Hungary	Netherlands	Austria	Poland	Portugal	Slovenia	Slovakia	Finland	Sweden	United Kingdom	Total	EU15	EU12
Belgium	:	:	:	217,344	:	:	:	:	894,111	18,121	:	:	:	:	141,265	:	:	:	:	:	:	:	70,493	1,341,334	1,341,334	-
Bulgaria	:	:	:	170,590	:	:	50,545	:	:	223,795	:	:	:	:	:	:	:	:	:	:	:	:	:	444,930	444,930	-
Czech Republic	17,620	:	:	327,874	:	:	:	:	71,157	29,286	:	:	:	:	14,358	38,742	:	:	:	18,884	:	:	10,428	528,349	509,465	18,884
Denmark	:	:	:	72,392	:	:	:	:	44,370	6,204	:	:	:	:	:	:	:	:	:	:	:	107,040	4,429	234,435	234,435	-
Germany	59,174	22,661	255,378	:	:	:	59,453	68,216	503,529	363,401	:	:	9,086	:	143,055	110,627	22,395	:	:	:	:	177,647	136,456	1,931,078	1,886,022	45,056
Estonia	:	:	3,366	31,338	:	:	:	:	:	:	4,081	:	:	:	:	:	17,401	:	:	:	56,944	56,315	:	169,445	147,963	21,482
Ireland	:	:	:	:	:	:	:	:	7,884	9,505	:	:	:	:	:	:	:	:	:	:	:	:	311,705	329,094	329,094	-
Greece	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	-	-	-
Spain	:	:	:	137,320	:	:	:	:	1,415,440	31,632	:	:	:	:	:	:	40,580	:	:	:	:	:	:	1,624,972	1,624,972	-
France	68,041	:	:	63,230	:	:	:	35,071	:	45,274	:	:	:	:	:	:	:	:	:	:	:	:	129,140	340,756	340,756	-
Italy	:	:	:	264,249	:	:	:	:	210,293	:	:	:	:	:	:	:	:	:	:	:	:	:	:	474,542	474,542	-
Latvia	:	:	11,948	60,818	:	:	:	:	73,553	:	:	:	:	:	:	:	:	:	:	:	:	46,615	:	192,934	192,934	-
Lithuania	:	:	:	21,414	:	:	:	:	30,131	:	:	:	:	:	:	:	:	:	:	:	:	:	6,260	57,805	57,805	-
Luxembourg	339,005	:	22,832	461,227	:	:	:	10,747	1,172,025	21,209	:	:	:	:	19,110	1,554	:	:	:	:	:	6,707	7,400	2,061,816	2,061,816	-
Hungary	3,365	:	:	177,714	:	:	:	10,607	83,925	37,636	:	:	:	:	8,361	70,089	:	:	:	8,270	:	:	9,408	409,375	401,105	8,270
Netherlands	523,584	:	878	1,129,076	:	:	:	34,508	278,257	84,433	:	:	:	:	:	9,893	:	:	:	:	:	83,732	259,850	2,404,211	2,404,211	-
Austria	:	:	:	432,324	:	:	78,592	:	26,895	50,196	:	:	:	:	:	:	:	:	:	:	:	:	:	588,007	588,007	-
Poland	130,973	8,165	75,747	2,328,356	:	:	:	71,620	868,685	197,265	:	:	:	6,183	146,946	:	:	:	:	:	:	198,201	187,165	4,219,306	4,204,958	14,348
Portugal	:	:	:	44,531	:	:	:	324,908	267,138	:	:	:	:	:	:	:	:	:	:	:	:	:	:	636,577	636,577	-
Romania	6,255	:	:	18,850	:	:	:	:	9,349	16,557	:	:	:	:	:	:	:	:	:	:	:	:	:	51,011	51,011	-
Slovenia	:	:	:	179,194	:	:	:	:	19,638	127,736	:	:	:	:	:	58,297	:	:	:	:	:	:	:	384,865	384,865	-
Slovakia	30,384	12,751	23,817	135,954	:	:	:	38,817	121,809	77,235	:	:	:	:	20,935	23,835	:	:	:	:	:	:	:	485,537	472,786	12,751
Finland	:	:	:	28,620	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	102,692	:	131,312	131,312	-
Sweden	:	:	:	114,569	:	:	:	:	:	6,488	:	:	:	:	:	:	:	:	:	:	:	:	:	121,057	121,057	-
United Kingdom	2,441	:	:	11,436	:	98,371	:	:	25,769	:	:	:	:	:	2,613	:	:	:	:	:	:	:	:	140,630	140,630	-
Total	1,180,842	43,577	393,966	6,428,420	-	98,371	188,590	594,494	6,123,958	1,345,973	4,081	-	9,086	6,183	496,643	313,037	39,796	40,580	-	27,154	56,944	778,949	1,132,734	19,303,378		
EU15	992,245	22,661	279,088	2,976,318	-	98,371	138,045	473,450	4,845,711	636,463	-	-	9,086	-	306,043	122,074	22,395	40,580	-	-	-	477,818	919,473	12,359,821		
EU12	188,597	20,916	114,878	3,452,102	-	-	50,545	121,044	1,278,247	709,510	4,081	-	-	6,183	190,600	190,963	17,401	-	-	27,154	56,944	301,131	213,261	6,943,557		

Table A.4 - Cabotage Performed By Caboteur and Local of Movement, 2010, Thousand Tonne Kilometres⁴⁸³

⁴⁸³ Eurostat, [road_go_ca_c] 2012, Eurostat

Member State	2008	2009	2010
Belgium	249,624	233,589	237,049
Bulgaria	168,591	136,857	118,090
Czech Republic	382,385	324,978	301,390
Denmark	179,252	137,872	156,757
Germany	2,895,948	2,625,513	2,595,193
Estonia	36,231	25,612	22,391
Ireland	241,452	134,152	115,640
Greece	625,086	641,305	
Spain	2,053,346	1,651,674	1,502,338
France	2,144,378	1,891,983	1,964,948
Italy	1,481,023	1,434,162	1,487,437
Cyprus	41,601	28,493	32,216
Latvia	49,310	35,101	43,062
Lithuania	46,325	32,749	30,912
Luxembourg	26,718	23,539	27,803
Hungary	241,136	210,179	179,540
Netherlands	484,580	494,272	404,416
Austria	332,084	303,060	299,971
Poland	994,493	1,053,989	1,122,942
Portugal	267,998	237,173	200,549
Romania	347,634	283,723	163,604
Slovenia	70,773	57,019	59,734
Slovakia	168,323	133,246	112,182
Finland	417,791	345,442	390,884
Sweden	367,912	329,308	316,159
United Kingdom	1,755,350	1,442,918	

Table A.5 - National Transport conducted within Member States, Thousand Tonnes⁴⁸⁴

⁴⁸⁴ Eurostat, [road_go_ta_tot] 2012, Eurostat

Member State	2008	2009	2010
Belgium	21,657	20,978	21,345
Bulgaria	7,139	6,334	6,146
Czech Republic	15,746	13,479	14,761
Denmark	10,719	10,006	10,574
Germany	255,869	237,140	243,606
Estonia	1,935	1,417	1,400
Ireland	12,887	8,061	7,896
Greece	24,346	23,549	:
Spain	175,180	151,056	146,190
France	181,896	156,036	164,343
Italy	151,819	145,605	149,243
Cyprus	1,296	944	1,067
Latvia	2,482	2,094	2,490
Lithuania	2,546	2,618	2,272
Luxembourg	603	530	574
Hungary	12,962	12,075	11,243
Netherlands	32,007	31,335	32,003
Austria	13,976	12,960	13,352
Poland	71,913	79,204	86,150
Portugal	17,047	14,386	12,853
Romania	23,174	20,861	12,094
Slovenia	2,608	2,252	2,267
Slovakia	6,259	5,462	5,156
Finland	27,616	24,395	25,157
Sweden	33,704	29,324	29,987
United Kingdom	152,552	133,599	:

Table A.6 - National Transport conducted within Member States, Million Tonne Kilometres⁴⁸⁵

⁴⁸⁵ Eurostat, [road_go_ta_tot] 2012, Eurostat

Appendix 2: List of Documents Referenced

Document titles accompanied by source and source type.

Academic

DOCUMENT NAME	SOURCE
COST EFFECTS OF DELIVERY FREQUENCY FROM LOGISTICS SERVICE PROVIDER'S PERSPECTIVE	ASSOCIATION FOR EUROPEAN TRANSPORT
EFFECT OF UNITISED FREIGHT FLOWS AND LOGISTICS STRATEGIES ON SCOTLAND'S EXTERNAL TRADE	ASSOCIATION FOR EUROPEAN TRANSPORT
FLAGGING OUT AS A POPULAR STRATEGY OF ROAD FREIGHT TRANSPORT COMPANIES	ASSOCIATION FOR EUROPEAN TRANSPORT
LOGISTICS COSTS IN NORWAY, SURVEY RESULTS, CALCULATIONS AND INTERNATIONAL COMPARISON	ASSOCIATION FOR EUROPEAN TRANSPORT
INDUSTRIAL RELATIONS IN TRANSPORT SECTOR IN NETHERLANDS	AMSTERDAM INSTITUTE FOR ADVANCED LABOUR STUDIES
IMPACTS OF ROAD TRANSPORT PRICING REFORM ON SUPPLY CHAINS	BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
SOCIAL PROTECTION, ECONOMIC INTEGRATION AND TRANSPORT	CENTRAL EUROPEAN UNIVERSITY
HOW LARGE IS THE GAP BETWEEN PRESENT AND EFFICIENT TRANSPORT PRICES IN EUROPE	CENTRE FOR ECONOMIC STUDIES, LEUVEN
INTRODUCTION OF ENVIRONMENTAL COST CALCULATIONS IN THE PLANNING AND TRACING OF COMPANIES' FREIGHT TRANSPORT	CHALMERS UNIVERSITY GOTHENBURG
HANDBOOK ON ESTIMATION OF EXTERNAL COSTS IN THE TRANSPORT SECTOR	DELFT
THE PRICE OF TRANSPORT	DELFT
AN ANALYSIS OF FREIGHT LOGISTICS REQUIREMENTS FOR THE ISLAND OF IRELAND	DUBLIN INSTITUTE OF TECHNOLOGY
AN INVESTIGATION OF THE IRISH ROAD HAULAGE INDUSTRY'S EXTERNAL ENVIRONMENT	DUBLIN INSTITUTE OF TECHNOLOGY
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FREIGHT TRANSPORT AND LOGISTICS - CHARGING	EINDHOVEN UNIVERSITY OF TECHNOLOGY
VISION - ROAD TRANSPORT IN EUROPE 2025 HUNGARY	FEHRL
PRODUCTIVITY IN THE IRISH ROAD FREIGHT INDUSTRY	FORFAS
ACCEPTABILITY OF GERMAN ROAD USER CHARGING SCHEME FOR HGVS	GERMAN INSTITUTE FOR ECONOMIC RESEARCH
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ROAD TOLLS - HOW WILL IT AFFECT MODAL SPLIT	GOTHENBURG UNIVERSITY
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INCREASING FUEL PRICES AND MARKET DISTORTION IN THE DOMESTIC ROAD HAULAGE MARKET - UK	HERIOT WATT UNIVERSITY
INTERNALISING THE EXTERNAL COSTS OF ROAD FREIGHT TRANSPORT IN THE UK	HERIOT WATT UNIVERSITY

DOCUMENT NAME	SOURCE
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SCOTTISH FREIGHT STRATEGY SCOPING STUDY	HERIOT WATT UNIVERSITY
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ANNUAL REPORT 2007 HUNGARY	INSITUTE FOR TRANSPORT SCIENCES
ANNUAL REPORT 2009 HUNGARY	INSITUTE FOR TRANSPORT SCIENCES
ANNUAL REPORT FOR HUNGARY TRANSPORT 2002	INSITUTE FOR TRANSPORT SCIENCES
COORDINATION OF ROAD USER CHARGING OPERATIONAL ISSUES	INSTITUTE FOR TRANSPORT STUDIES, LEEDS
LIBERALISATION IN MARITIME TRANSPORT	INTERNATIONAL TRANSPORT FORUM
HUNGARY SUSTAINABLE ROADS - NATIONAL REPORT	ISTVAN UNIVERSITY
COMPETITIVENESS OF THE LITHUANIAN FREIGHT TRANSPORT SECTOR IN THE EU	KAUNAS UNIVERSITY
CAN POLICIES CAUSE COMPANIES TO ADOPT RESPONSIBLE BEHAVIOUR	LEONARDO DA VINCI UNIVERSITY
INTERNATIONAL ROAD FREIGHT TRANSPORT IN FRANCE - DRIVER COST ANALYSIS	LUMIERE UNIVERSITY
A CLOSER LOOK AT ROAD FREIGHT TRANSPORT AND ECONOMIC GROWTH IN SWEDEN	LUND UNIVERSITY
FREIGHT TRANSPORTATION ACTIVITY, BUSINESS CYCLES AND TREND GROWTH	LUND UNIVERSITY
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INTERNATIONAL ROAD FREIGHT TRANSPORT IN GERMANY & NETHERLANDS	LYON UNIVERSITY
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VOLUME AND DISTRIBUTION OF CABOTAGE IN EUROPEAN ROAD FREIGHT TRANSPORT	MICHEL SAVY
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ANALYSIS OF POSSIBLE USE OF LONG COMBINATION VEHICLES	RIGA TECHNICAL UNIVERSITY
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ACCEPTABILITY AND POLITICAL COORDINATION OF ROAD USER CHARGES	SWEDISH NATIONAL ROAD AND TRANSPORT RESEARCH INSTITUTE

DOCUMENT NAME	SOURCE
DEVELOPMENT OF AN ACTIVITY-BASED COST METHODOLOGY FOR THE ROAD FREIGHT PUBLIC SECTOR (DESENVOLVIMENTO DE UMA METODOLOGIA DE CUSTEIO BASEADO NAS ACTIVIDADES PARA O SECTOR DO TRANSPORTE PÚBLICO RODOVIÁRIO DE MERCADORIAS)	UNIVERSIDADE TÉCNICA DE LISBOA - INSTITUTO SUPERIOR DE ECONOMIA E GESTÃO
IMPACT OF WORKING TIME DIRECTIVE ON ROAD TRANSPORT IN IRELAND	UNIVERSITY COLLEGE, DUBLIN
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SCHEDULING FLEXIBILITY AND PRICING IN ROAD FREIGHT TRANSPORT	UNIVERSITY OF ANTWERP
REGULATION IN THE ROAD FREIGHT TRANSPORT SECTOR	UNIVERSITY OF BATH
ROAD FREIGHT IN CASTILE AND LEON (EL TRANSPORTE DE MERCANCIAS POR CARRETERA EN CASTILLA Y LEÓN)	UNIVERSITY OF LEON
ROAD PRICING AND FREIGHT	UNIVERSITY OF NEWCASTLE
GET THE PRICE RIGHT - AN OVERVIEW OF THE SWEDISH FREIGHT TRANSPORT SYSTEM	UNIVERSITY OF OREBRO
SOFTICE - SURVEY ON FREIGHT TRANSPORT COSTS IN EUROPE (INC. POLAND)	UNIVERSITY OF ROME
IMPACT OF MARKET STRUCTURE ON ROAD FREIGHT SAFETY AND SECURITY IN THE BALTIC	UNIVERSITY OF TURKU
WHAT IS IMPORTANT FOR TRAFFIC SAFETY OF HGVS	UNIVERSITY OF TURKU
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UTILISATION OF TRANSPORT CAPACITIES AND OPPORTUNITY TO MITIGATE NEGATIVE ENVIRONMENTAL IMPACT OF LOGISTICS OPERATIONS	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
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AECOM

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European Commission

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FREIGHT TRANSPORT RESEARCH SUMMARY	DG ENERGY AND TRANSPORT
ROAD FREIGHT TRANSPORT VADEMECUM	DG ENERGY AND TRANSPORT
ROAD TRANSPORT WORKING TIME DIRECTIVE SELF EMPLOYED AND NIGHT TIME PROVISIONS	DG ENERGY AND TRANSPORT
ROAD TRANSPORT WORKING TIME DIRECTIVE SELF EMPLOYED AND NIGHT TIME PROVISIONS - ANNEXES	DG ENERGY AND TRANSPORT
STUDY ON FEASIBILITY OF ORGANISING A NETWORK OF SECURE PARKING AREAS ACROSS EUROPE	DG ENERGY AND TRANSPORT
SHORTAGE OF QUALIFIED PERSONNEL IN FREIGHT TRANSPORT	DG FOR INTERNAL POLICIES
EU ACCESSION ISSUES	DG MOBILITY AND TRANSPORT
FINANCING, PRICING AND TAXATION OF TRANSPORT SECTOR	DG MOBILITY AND TRANSPORT
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ANALYSIS OF THE IMPACT OF OIL PRICES ON THE SOCIO-ECONOMIC SITUATION IN THE TRANSPORT SECTOR	DG TREN
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STRATEGIC PLAN FOR IMPULSING RAILWAY FREIGHT TRANSPORT (PLAN ESTRATÉGICO PARA EL IMPULSO DEL TRANSPORTE FERROVIARIO DE MERCANCÍAS EN ESPAÑA)	MINISTRY OF PUBLIC WORKS OF SPAIN
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ORGANISATION AND SUBCONTRACTING RELATIONSHIPS IN FRENCH ROAD HAULAGE	MINISTRY OF SUSTAINABLE DEVELOPMENT
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REPORT FROM THE GENERAL SECRETARY	ETF
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SAFETY MONITOR - ETSC NEWSLETTER 54	ETSC

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GUIDELINES ON SUBCONTRACTING OF CHEMICAL ROAD TRANSPORT	EUROPEAN CHEMICAL TRANSPORT ASSOCIATION
RECOMMENDATIONS ON HOW TO MANAGE DRIVER SHORTAGES	EUROPEAN CHEMICAL TRANSPORT ASSOCIATION
ECSLA ANNUAL REPORT 2005	EUROPEAN COLD STORAGE AND LOGISTICS INDUSTRY
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EUROPEAN SOCIAL CHARTER	EUROPEAN COMMITTEE ON SOCIAL RIGHTS
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A PRICE WORTH PAYING - GUIDE TO EU RULES ON ROAD TOLLS FOR HGVS	EUROPEAN FEDERATION FOR TRANSPORT & ENVIRONMENT
EU ROAD FREIGHT TRANSPORT SECTOR - WORK AND EMPLOYMENT CONDITIONS	EUROPEAN FOUNDATION FOR THE IMPROVEMENT OF LIVING AND WORKING CONDITIONS
EU ROAD FREIGHT TRANSPORT SECTOR: WORK AND EMPLOYMENT CONDITIONS	EUROPEAN FOUNDATION FOR THE IMPROVEMENT OF WORKING AND LIVING CONDITIONS
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DEVELOPMENT REPORT 2007	INSTITUTE OF MACROECONOMIC ANALYSIS AND DEVELOPMENT
SOCIAL DIALOGUE PERSPECTIVES IN ROMANIAN ROAD TRANSPORT	INTERNATIONAL LABOUR OFFICE
IRU RESPONSE TO EU WHITE PAPER	INTERNATIONAL ROAD TRANSPORT UNION

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MAXIMISING NETWORK PRODUCTIVITY AND THE CASE FOR ROAD PRICING	INTERNATIONAL TRANSPORT FORUM
ROAD TRANSPORT IN EU OVERVIEW	INTERNATIONAL TRANSPORT FORUM
REPORT ON LOGISTICS SECTOR	INVESTMENT AND DEVELOPMENT AGENCY OF LATVIA
INTERNALISATION OF EXTERNAL COSTS - DIRECT IMPACT ON THE ECONOMIES OF THE INDIVIDUAL EU MEMBER STATES, AND THE CONSEQUENCES ON THE EUROPEAN ROAD HAULAGE INDUSTRY	IRU
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FREIGHT PRIZES BY MODES (PRECIOS DEL TRANSPORTE DE MERCANCIAS POR MODOS)	OBSERVATORY FOR SUSTAINABILITY
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PAYING FOR THE USE OF ROADS IS ALREADY DONE IN MANY EUROPEAN COUNTRIES (PAGAR POR EL USO DE LAS CARRETERAS SE HACE YA EN MEDIA EUROPA)	PERIODISTADIGITAL.COM
ECONOMICS, MEASUREMENT AND FUTURE OUTLOOK OF THE EXTERNAL COSTS OF TRANSPORT IN ITALY	PROMETEIA
LOGISTICS SECTOR PROFILE - ENGLAND	SKILLS FOR LOGISTICS
ROAD USER CHARGING - A ROAD MAP	SOCIAL MARKET FOUNDATION
HIGH PRICES IN SWEDEN - A RESULT OF POOR COMPETITION?	SWEDISH COMPETITION AUTHORITY
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CASE STUDY OF A ROAD USER CHARGING DEVELOPMENT PROJECT	TRANSPORT RESEARCH ARENA
REVIEW OF THE INTERNAL MARKET IN ROAD FREIGHT TRANSPORT	UK TRANSPORT IN EUROPE
DIRECTIVE ON SERVICES IN THE INTERNAL MARKET	WIKIPEDIA
FINANCING AND MANAGING THE MAINTENANCE AND EXPANSION OF ROAD NETWORKS	WORLD BANK
GREECE: FIRST REVIEW UNDER THE STANDBY ARRANGEMENT	WORLD BANK
POLAND - TOWARD A SUSTAINABLE LAND TRANSPORT SECTOR - SUMMARY	WORLD BANK
ROAD FREIGHT LOGISTICS, COMPETITION AND INNOVATION: DOWNSTREAM BENEFITS AND POLICY IMPLICATIONS	WORLD BANK
STATUS OF TRANSPORT SECTOR RESTRUCTURING IN THE BALTIC STATES	WORLD BANK

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THE ROAD CHARGING SYSTEM OF SCUT ROADS FAVOURS FOREIGNERS (SISTEMA DE COBRANÇA DAS SCUT FAVORECE ESTRANGEIROS)	JORNAL DE NEGÓCIOS (JOURNAL)
ROAD TRANSPORT WILL HAVE A SPECIFIC LABOR LEGISLATION (TRANSPORTE RODOVIÁRIO TERÁ LEGISLAÇÃO LABORAL ESPECÍFICA)	REVISTA TRANSPORTES (MAGAZINE)
CONTRACT FOR NATIONAL ROAD TRANSPORT OF GOODS: INFORMATIVE AND LEGISLATIVE REVIEW (CONTRATO DE TRANSPORTE RODOVIÁRIO NACIONAL DE MERCADORIAS_ RESENHA INFORMATIVA E LEGISLATIVA)	VIDA ECONÓMICA (ISBN: 9789727883233)
THE "LOCKOUT" CONTROL OF ROAD FREIGHT BY PRIVATE COMPANIES (O DOMÍNIO DOS TRANSPORTES RODOVIÁRIOS DE MERCADORIAS PELOS PRIVADOS, O "LOCKOUT")	WWW.EUGENIOROSA.COM

Private Business

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INTERVIEW – GEFCO	AECOM
A PRACTICAL APPROACH TO ROAD USER CHARGING	ARENA
ASECAP - TOLLING IN EUROPE	ASECAP
TRANSPORT CORRIDORS IN EUROPE - IRISH SPATIAL STRATEGY	ATKINS MCCARTHY
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LATVIA LOSING ITS COMPETITIVENESS IN LOGISTICS	BALTIC NEWS NETWORK
ECONOMIC AND FINANCIAL CHARACTERISTICS OF THE FRENCH ROAD TRANSPORT FLEET	BANQUE DE FRANCE
ROAD CABOTAGE IN THE FREIGHT TRANSPORT MARKET - OPPORTUNITIES AND OBLIGATIONS	BERGMANN ATTORNEYS AT LAW
CABOTAGE COMPROMISE	BUSINESS EASTERN EUROPE
SWOT ANALYSIS OF THE SLOVAK REPUBLIC	CHEMLOG
DOCUMENT ON TRAINING, JOURNEY PLANNING AND INTERNATIONAL AGREEMENTS	CRONER
FRANCE GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
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EUROPEAN DISTRIBUTION REPORT 2008	CUSHMAN & WAKEFIELD

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THE IMPACTS OF THE 2004 ENLARGEMENT IN THE AREA OF TRANSPORT	DG TREN
DRIVING FLEET FUEL EFFICIENCY - THE ROAD TO 2020	DUNLOP GOODYEAR
MINIMUM CONTRACT CLAUSES IN ROAD FREIGHT TRANSPORT	ECORYS
BRANCH SURVEY ON WORKING CONDITIONS IN FREIGHT ROAD TRANSPORT FOR AUSTRIA	FORBA
THE GOODS TRANSPORTATION AND LOGISTICS MARKET IN ROMANIA	FRD CENTER MARKET ENTRY SERVICES
FREIGHT TRANSPORT REPORT FOR THE ISLAND OF IRELAND	INTER TRADE IRELAND
FRENCH TRUCKERS HIT OUT OVER CABOTAGE EXPANSION	INTERNATIONAL FREIGHT WEEKLY
MEGATRUCKS CAN BRING BENEFITS	INTERNATIONAL FREIGHT WEEKLY
REPORT NO 1: HUNGARIAN DATA	JENNINGS CONSULTANCY
FREIGHT MODELLING AND POLICY ANALYSIS IN THE UK	JOHN BATES (INDEPENDENT CONSULTANT)
POLISH MOTOR INDUSTRY REPORT 2011	KPMG
SUPPLY CHAIN COMPLEXITY: MANAGING CONSTANT CHANGE	KPMG
HUNGARY-ROMANIA CROSS BORDER COOPERATION	MEGAKOM CONSULTANTS
GENERAL CONDITIONS OF NORDIC ASSOCIATION OF FREIGHT FORWARDERS	NORDIC ASSOCIATION OF FREIGHT FORWARDERS
NEWS ARTICLE - EU DIRECTIVE ON TEMPORARY WORKERS COULD REDUCE SOCIAL DUMPING	NORDIC LABOUR JOURNAL
2011: A LONG HARD ROAD AHEAD FOR UK HAULAGE INDUSTRY	NOVADATA
A FAIRER WAY OF PAYING TO DRIVE - MAKING FUEL DUTY MORE INTELLIGENT	PHIL CAREY
EUROPEAN ROAD HAULAGE BROCHURE	PLIMSOLL ANALYSIS
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FIRST QUARTER 2011 TRANSPORTATION INDUSTRY M&A ACTIVITY	PRICE WATERHOUSE COOPERS
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MOVING ON - FAIRER MOTORING TAXES AND INVESTMENT FOR GROWTH JOBS	THE ROAD AHEAD GROUP

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ACTIONS FOR AN EFFICIENT EUROPEAN TRANSPORT POLICY	TRANSPORT ANALYSIS
EUROPEAN ROAD FREIGHT 2010	TRANSPORT INTELLIGENCE
MARKET INTELLIGENCE FOR THE TRANSPORT & LOGISTICS INDUSTRY	TRANSPORT INTELLIGENCE

List of documents by topic

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ACEA COMMENTS ON ROADMAP TO A SINGLE EUROPEAN TRANSPORT AREA WHITE PAPER	ACEA
HAULIER INTERVIEWS	AECOM
TOWARDS REGULATION OF HISTORICALLY GROWN MONOPOLIES: MARKET MODELS FOR THE DUTCH WEST FRISIAN ISLAND FERRIES	ASSOCIATION FOR EUROPEAN TRANSPORT
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 18 ROAD USER CHARGING	CNT
COMPETITIVENESS OF THE FRENCH ROAD TRANSPORT FLEET	COMITE NATIONAL ROUTIER
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FREIGHT TRANSPORT RESEARCH SUMMARY	DG ENERGY AND TRANSPORT
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ROAD FREIGHT TRANSPORT VADEMECUM - 2010 REPORT: MARKET TRENDS AND STRUCTURE IN EU	DG MOBILITY AND TRANSPORT
DECREE-LAW 136-2009 (DECRETO-LEI 1362009)	DIÁRIO DA REPÚBLICA
STUDY ON CABOTAGE IN THE ROAD FREIGHT INDUSTRY	EC - DG TREN
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WHITE PAPER - ROADMAP TO A SINGLE EUROPEAN TRANSPORT AREA	EUROPEAN COMMISSION
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THE BURNS INQUIRY - FREIGHT TAXES	FREIGHT TRANSPORT ASSOCIATION
FREIGHT CABOTAGE TRANSPORT - FRENCH REGULATION	FRENCH MINISTRY OF TRANSPORT
NEWSLETTER - HEAVY TALK - UNLAWFUL CABOTAGE IN UK	HEAVY TRANSPORT ASSOCIATION
INCREASING FUEL PRICES AND MARKET DISTORTION IN THE DOMESTIC ROAD HAULAGE MARKET - UK	HERIOT WATT UNIVERSITY
SCOTTISH FREIGHT STRATEGY SCOPING STUDY	HERIOT WATT UNIVERSITY
ROAD HAULAGE INDUSTRY - COSTS & TAXES	HOUSE OF COMMONS LIBRARY
FRENCH TRUCKERS HIT OUT OVER CABOTAGE EXPANSION	INTERNATIONAL FREIGHT WEEKLY
IRU RESPONSE TO EU WHITE PAPER	INTERNATIONAL ROAD TRANSPORT UNION
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LORRY ROAD USER CHARGING - A WAY FORWARD FOR THE UK	METROPOLITAN TRANSPORT RESEARCH UNIT
INTERNATIONAL ROAD FREIGHT MADE BY SPANISH HEAVY VEHICLES (EL TRANSPORTE INTERNACIONAL DE MERCANCIAS POR CARRETERA REALIZADO POR LOS VEHÍCULOS PESADOS ESPAÑOLES)	MINISTRY OF PUBLIC WORKS OF SPAIN
STRATEGIC PLAN OF ACTION FOR ROAD FREIGHT (PLAN ESTRATÉGICO DE ACTUACIÓN PARA EL TRANSPORTE DE MERCANCIAS POR CARRETERA)	MINISTRY OF PUBLIC WORKS OF SPAIN

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DOCUMENT NAME	SOURCE
HAULIER INTERVIEWS	AECOM
LOGISTICS COSTS IN NORWAY, SURVEY RESULTS, CALCULATIONS AND INTERNATIONAL COMPARISON	ASSOCIATION FOR EUROPEAN TRANSPORT
ROAD FREIGHT TRANSPORT VADEMECUM - 2010 REPORT: MARKET TRENDS AND STRUCTURE IN EU	DG MOBILITY AND TRANSPORT
ANALYSIS OF THE IMPACT OF OIL PRICES ON THE SOCIO-ECONOMIC SITUATION IN THE TRANSPORT SECTOR	DG TREN
DECREE-LAW 145-2008 (DECRETO-LEI-145-2008)	DIÁRIO DA REPÚBLICA
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LEGAL REGIME OF THE CONTRACT FOR NATIONAL ROAD TRANSPORT OF GOODS (REGIME-JURIDICO-DO-CONTRATO-DE-TRANSPORTE-RODOVIARIO-NACIONAL-DE-MERCADORIAS)	DIÁRIO DA REPÚBLICA
MODIFICATION OF THE LEGAL REGIME OF THE NATIONAL ROAD FREIGHT CONTRACT (ALTERAÇÃO-AO-REGIME-JURIDICO-DO-CONTRATO-DE-TRANSPORTE-RODOVIARIO-NACIONAL-DE-MERCADORIAS)	DIÁRIO DA REPÚBLICA
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INTERNATIONAL ROAD FREIGHT TRANSPORT IN FRANCE - DRIVER COST ANALYSIS	LUMIERE UNIVERSITY
ORGANISATION AND SUBCONTRACTING RELATIONSHIPS IN FRENCH ROAD HAULAGE	MINISTRY OF SUSTAINABLE DEVELOPMENT
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TRANSPORT AND LOGISTICS IN BELGIUM	ABH-ACE
ACEA COMMENTS ON ROADMAP TO A SINGLE EUROPEAN TRANSPORT AREA WHITE PAPER	ACEA
HAULIER INTERVIEWS	AECOM
UPDATE OF THE TAX ON CONTAINER TRANSPORT (ACTUALIZAÇÃO DA TAXA NO TRANSPORTE DE CONTENTORES)	ANTRAM
WHY IS EUROVIGNETTE NEEDED? (¿POR QUÉ ES NECESARIA LA EUROVIÑETA?)	ASETA
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FLAGGING OUT AS A POPULAR STRATEGY OF ROAD FREIGHT TRANSPORT COMPANIES	ASSOCIATION FOR EUROPEAN TRANSPORT
LOGISTICS COSTS IN NORWAY, SURVEY RESULTS, CALCULATIONS AND INTERNATIONAL COMPARISON	ASSOCIATION FOR EUROPEAN TRANSPORT
MODELLING VEHICLE UTILISATION, OPERATING COSTS AND EFFICIENCY OF THE LOGISTICS SERVICES SECTOR	ASSOCIATION FOR EUROPEAN TRANSPORT
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ECONOMIC AND FINANCIAL CHARACTERISTICS OF THE FRENCH ROAD TRANSPORT FLEET	BANQUE DE FRANCE
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TRANSPORT IN SPAIN, A STRATEGIC SECTOR (EL TRANSPORTE EN ESPAÑA, UN SECTOR ESTRATÉGICO)	CETMO FOUNDATION
INTRODUCTION OF ENVIRONMENTAL COST CALCULATIONS IN THE PLANNING AND TRACING OF COMPANIES' FREIGHT TRANSPORT	CHALMERS UNIVERSITY GOTHENBURG
SWOT ANALYSIS OF THE SLOVAK REPUBLIC	CHEMLOG
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AN INVESTIGATION OF THE IRISH ROAD HAULAGE INDUSTRY'S EXTERNAL ENVIRONMENT	DUBLIN INSTITUTE OF TECHNOLOGY
DRIVING FLEET FUEL EFFICIENCY - THE ROAD TO 2020	DUNLOP GOODYEAR
LIGHT GOODS VEHICLES IN THE ROAD TRANSPORT MARKET OF THE EUROPEAN UNION	EC - DG MOVE
STUDY ON CABOTAGE IN THE ROAD FREIGHT INDUSTRY	EC - DG TREN
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SOCIAL DUMPING IN THE ECMT AREA - ROAD HAULAGE CASE	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
RELOCATION - CHALLENGES AND OPPORTUNITIES	EUROPEAN ECONOMIC AND SOCIAL COMMITTEE
COMPETITIVENESS IN EU ROAD FREIGHT TRANSPORT	EUROSTAT

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BRANCH SURVEY ON WORKING CONDITIONS IN FREIGHT ROAD TRANSPORT FOR AUSTRIA	FORBA
PRODUCTIVITY IN THE IRISH ROAD FREIGHT INDUSTRY	FORFAS
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REDUCING ENVIRONMENTAL IMPACT OF FREIGHT TRANSPORT SECTOR: CASE OF THE CZECH REPUBLIC	LUND UNIVERSITY
INTERNATIONAL ROAD FREIGHT TRANSPORT IN GERMANY & NETHERLANDS	LYON UNIVERSITY
ANALYSIS OF THE PROPOSED REVISION OF THE "EUROVIGNETTE" DIRECTIVE (ANÁLISIS DE LA PROPUESTA COMUNITARIA DE REVISIÓN DE LA DIRECTIVA "EUROVIÑETA")	MINISTRY OF PUBLIC WORKS OF SPAIN
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TRANSPORT COMMITTEE COMMENTS ON TAXES AND CHARGES ON ROAD USERS	PARLIAMENT
ASSESSMENT OF ENVIRONMENTAL AND SECURITY COSTS IN ROAD FREIGHT (EVALUACIÓN DE LOS COSTES MEDIOAMBIENTALES Y DE SEGURIDAD EN EL TRANSPORTE DE MERCANCIAS POR CARRETERA)	PUBLIC UNIVERSITY OF NAVARRE
HIGH PRICES IN SWEDEN - A RESULT OF POOR COMPETITION?	SWEDISH COMPETITION AUTHORITY
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REGULATION IN THE ROAD FREIGHT TRANSPORT SECTOR	UNIVERSITY OF BATH
SOFTICE - SURVEY ON FREIGHT TRANSPORT COSTS IN EUROPE (INC. POLAND)	UNIVERSITY OF ROME
INTERNALISATION OF FREIGHT TRANSPORT EXTERNAL COSTS IN THE PARIS-AMSTERDAM CORRIDOR	VOIES NAVIGABLES DE FRANCE
FINANCING AND MANAGING THE MAINTENANCE AND EXPANSION OF ROAD NETWORKS	WORLD BANK
THE "LOCKOUT" CONTROL OF ROAD FREIGHT BY PRIVATE COMPANIES (O DOMINIO DOS TRANSPORTES RODOVIÁRIOS DE MERCADORIAS PELOS PRIVADOS, O "LOCKOUT")	WWW.EUGENIOROSA.COM

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DOCUMENT NAME	SOURCE
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ROAD FREIGHT IN CASTILE AND LEON (El Transport de Mercanias por carretera en Castilla y Leon), 2008	UNIVERSITY OF LEON
INTERVIEW WITH AEBTRI – BULGARIAN ROAD HAULAGE ASSOCIATION, 2012	AECOM
DEVELOPMENT AND IMPLEMENTATION OF EU ROAD CABOTAGE, 2013	EUROPEAN PARLIAMENT
SOCIAL DUMPING IN THE ECMT AREA – ROAD HAULAGE CASE, 2002	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
INTERNATIONAL ROAD FREIGHT TRANSPORT IN FRANCE – DRIVER COST ANALYSIS, 2008	LUMIERE UNIVERSITY
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE – ISSUE 22 EMPLOYMENT AND TRAINING, 2008	CNT
FREIGHT TRANSPORT REPORT FOR THE ISLAND OF IRELAND, 2008	INTER TRADE IRELAND

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REPORT OF THE HIGH LEVEL GROUP ON THE DEVELOPMENT OF THE EU ROAD HAULAGE MARKET, 2012	EUROPEAN PARLIAMENT
HAULIER INTERVIEW UNDERTAKEN IN 2012	AECOM

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HAULIER INTERVIEWS	AECOM
SWOT ANALYSIS OF THE SLOVAK REPUBLIC	CHEMLOG
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TRANSPORT OF DANGEROUS GOODS IN FINLAND	MINISTRY OF TRANSPORT AND COMMUNICATIONS

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DOCUMENT NAME	SOURCE
HAULIER INTERVIEWS	AECOM
MODELLING VEHICLE UTILISATION, OPERATING COSTS AND EFFICIENCY OF THE LOGISTICS SERVICES SECTOR	ASSOCIATION FOR EUROPEAN TRANSPORT
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ROAD TRANSPORT WORKING TIME DIRECTIVE SELF EMPLOYED AND NIGHT TIME PROVISIONS	DG ENERGY AND TRANSPORT
SHORTAGE OF QUALIFIED PERSONNEL IN FREIGHT TRANSPORT	DG FOR INTERNAL POLICIES
THE IMPACTS OF THE 2004 ENLARGEMENT IN THE AREA OF TRANSPORT	DG TREN
RECOMMENDATIONS ON HOW TO MANAGE DRIVER SHORTAGES	EUROPEAN CHEMICAL TRANSPORT ASSOCIATION

DOCUMENT NAME	SOURCE
EU ROAD FREIGHT TRANSPORT SECTOR: WORK AND EMPLOYMENT CONDITIONS	EUROPEAN FOUNDATION FOR THE IMPROVEMENT OF WORKING AND LIVING CONDITIONS
FREIGHT TRANSPORT REPORT FOR THE ISLAND OF IRELAND	INTER TRADE IRELAND
SOCIAL OBSERVATORY OF ROAD FREIGHT (OBSERVATORIO SOCIAL DEL TRANSPORTE POR CARRETERA)	MINISTRY OF PUBLIC WORKS OF SPAIN
2011: A LONG HARD ROAD AHEAD FOR UK HAULAGE INDUSTRY	NOVADATA
5 YEARS OF POLAND IN THE EU	OFFICE OF COMMITTEE FOR EUROPEAN INTEGRATION
ANALYSIS OF PROFESSIONAL DRIVERS' TRAINING SYSTEM IN LITHUANIA	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

Enforcement discrimination

DOCUMENT NAME	SOURCE
SAFETY DOCUMENT	AECOM
FRANCE GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
GERMANY GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
NETHERLANDS GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
STUDY ON CABOTAGE IN THE ROAD FREIGHT INDUSTRY	EC - DG TREN
FREIGHT CABOTAGE TRANSPORT - FRENCH REGULATION	FRENCH MINISTRY OF TRANSPORT
ROAD TRANSPORT IN EU OVERVIEW	INTERNATIONAL TRANSPORT FORUM
EVALUATION OF THE DEGREE OF INFLUENCE OF THE SAFETY REGULATORY ISSUES ON INTERNATIONAL ROAD FREIGHT TRANSPORT	LATVIAN TRANSPORT DEVELOPMENT AND EDUCATION ASSOCIATION
THE CONSTRUCTION AND OPERATION OF THE ROAD FREIGHT TRANSPORT MARKET IN EUROPE	LET
IMPACT OF MARKET STRUCTURE ON ROAD FREIGHT SAFETY AND SECURITY IN THE BALTIC	UNIVERSITY OF TURKU
ROAD TRANSPORT POLICY OF EU AND FAIR COMPETITION IN EUROPEAN ROAD TRANSPORT SECTOR	UNIVERSITY OF TWENTE

Legislation

DOCUMENT NAME	SOURCE
TRANSPORT AND LOGISTICS IN BELGIUM	ABH-ACE
SAFETY DOCUMENT	AECOM
FLAGGING OUT AS A POPULAR STRATEGY OF ROAD FREIGHT TRANSPORT COMPANIES	ASSOCIATION FOR EUROPEAN TRANSPORT
SUMMARY OF GERMANY - MARKET REPORT	BAG

DOCUMENT NAME	SOURCE
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 20 ROAD USER CHARGING	CNT
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 22 EMPLOYMENT AND TRAINING	CNT
HANDBOOK ON ESTIMATION OF EXTERNAL COSTS IN THE TRANSPORT SECTOR	DELFT
EUROPEAN SECTORAL SOCIAL DIALOGUE	DG EMPLOYMENT
SHORTAGE OF QUALIFIED PERSONNEL IN FREIGHT TRANSPORT	DG FOR INTERNAL POLICIES
STUDY ON CABOTAGE IN THE ROAD FREIGHT INDUSTRY	EC - DG TREN
BRIEFING POSTED WORKER DIRECTIVE EC/71/1996	EUROPEAN COMMISSION
DRIVING RESTRICTIONS FOR HEAVY GOODS VEHICLES IN THE EUROPEAN UNION	EUROPEAN COMMISSION
WHITE PAPER - ROADMAP TO A SINGLE EUROPEAN TRANSPORT AREA	EUROPEAN COMMISSION
SOCIAL DUMPING IN THE ECMT AREA - ROAD HAULAGE CASE	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
FREIGHT CABOTAGE TRANSPORT - FRENCH REGULATION	FRENCH MINISTRY OF TRANSPORT
CURRENT SITUATION OF THE TRANSPORT SECTOR (SITUACIÓN ACTUAL DEL SEGMENTO TRANSPORTE)	GAIA
HARMONISATION AND CONVERGENCE - NATIONAL RESPONSES TO COMMON TRANSPORT POLICY	GERMAN POLICY STUDIES
IRU RESPONSE TO EU WHITE PAPER	INTERNATIONAL ROAD TRANSPORT UNION
THE CONSTRUCTION AND OPERATION OF THE ROAD FREIGHT TRANSPORT MARKET IN EUROPE	LET
EFFICIENT CHARGING OF HEAVY GOODS VEHICLES - A CRITICAL REVIEW OF THE COMMISSION'S PROPOSAL FOR AMENDING THE EUROVIGNETTE DIRECTIVE	SWEDISH INSTITUTE FOR TRANSPORT AND COMMUNICATION ANALYSIS
ACTIONS FOR AN EFFICIENT EUROPEAN TRANSPORT POLICY	TRANSPORT ANALYSIS
UTILISATION OF TRANSPORT CAPACITIES AND OPPORTUNITY TO MITIGATE NEGATIVE ENVIRONMENTAL IMPACT OF LOGISTICS OPERATIONS	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY
DIRECTIVE ON SERVICES IN THE INTERNAL MARKET	WIKIPEDIA

Road user charging

DOCUMENT NAME	SOURCE
SAFETY DOCUMENT	AECOM
A PRACTICAL APPROACH TO ROAD USER CHARGING	ARENA
IMPACTS OF ROAD TRANSPORT PRICING REFORM ON SUPPLY CHAINS	BUDAPEST UNIVERSITY OF TECHNOLOGY AND ECONOMICS
TRANSPORT AND PORTS POLICY IN THE EUROPEAN UNION	COREPOINT INTERREG

DOCUMENT NAME	SOURCE
FRANCE GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
HUNGARY GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
NETHERLANDS GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
POLAND GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
PORTUGAL GENERAL FREIGHT TRANSPORT INFORMATION	CRONER
THE PRICE OF TRANSPORT	DELFT
FREIGHT TRANSPORT RESEARCH SUMMARY	DG ENERGY AND TRANSPORT
FINANCING, PRICING AND TAXATION OF TRANSPORT SECTOR	DG MOBILITY AND TRANSPORT
REGULATION AND DEREGULATION OF TRANSPORT SECTOR	DG MOBILITY AND TRANSPORT
A PRICE WORTH PAYING - GUIDE TO EU RULES ON ROAD TOLLS FOR HGVS	EUROPEAN FEDERATION FOR TRANSPORT & ENVIRONMENT
VISION - ROAD TRANSPORT IN EUROPE 2025 HUNGARY	FEHRL
THE BURNS INQUIRY - FREIGHT TAXES	FREIGHT TRANSPORT ASSOCIATION
ACCEPTABILITY OF GERMAN ROAD USER CHARGING SCHEME FOR HGVS	GERMAN INSTITUTE FOR ECONOMIC RESEARCH
ROAD TOLLS - HOW WILL IT AFFECT MODAL SPLIT	GOTHENBURG UNIVERSITY
NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY - HUNGARY	GOVERNMENT OF HUNGARY
LORRY ROAD USER CHARGING - A REVIEW OF THE UK GOVERNMENT PROPOSALS	HERIOT WATT UNIVERSITY
SCOTTISH FREIGHT STRATEGY SCOPING STUDY	HERIOT WATT UNIVERSITY
ROAD HAULAGE INDUSTRY - COSTS & TAXES	HOUSE OF COMMONS LIBRARY
COORDINATION OF ROAD USER CHARGING OPERATIONAL ISSUES	INSTITUTE FOR TRANSPORT STUDIES, LEEDS
IRU RESPONSE TO EU WHITE PAPER	INTERNATIONAL ROAD TRANSPORT UNION
MAXIMISING NETWORK PRODUCTIVITY AND THE CASE FOR ROAD PRICING	INTERNATIONAL TRANSPORT FORUM
THE CONSTRUCTION AND OPERATION OF THE ROAD FREIGHT TRANSPORT MARKET IN EUROPE	LET
INTERNATIONAL ROAD FREIGHT TRANSPORT IN FRANCE - DRIVER COST ANALYSIS	LUMIERE UNIVERSITY
LORRY ROAD USER CHARGING - A WAY FORWARD FOR THE UK	METROPOLITAN TRANSPORT RESEARCH UNIT
PAYING FOR THE USE OF ROADS IS ALREADY DONE IN MANY EUROPEAN COUNTRIES (PAGAR POR EL USO DE LAS CARRETERAS SE HACE YA EN MEDIA EUROPA)	PERIODISTADIGITAL.COM
THE ACCEPTABILITY OF ROAD PRICING	RAC FOUNDATION

DOCUMENT NAME	SOURCE
ROAD USER CHARGING - A ROAD MAP	SOCIAL MARKET FOUNDATION
EFFICIENT CHARGING OF HEAVY GOODS VEHICLES - A CRITICAL REVIEW OF THE COMMISSION'S PROPOSAL FOR AMENDING THE EUROVIGNETTE DIRECTIVE	SWEDISH INSTITUTE FOR TRANSPORT AND COMMUNICATION ANALYSIS
ACCEPTABILITY AND POLITICAL COORDINATION OF ROAD USER CHARGES	SWEDISH NATIONAL ROAD AND TRANSPORT RESEARCH INSTITUTE
ROAD PRICING AND FREIGHT	UNIVERSITY OF NEWCASTLE
INTERNALISATION OF FREIGHT TRANSPORT EXTERNAL COSTS IN THE PARIS-AMSTERDAM CORRIDOR	VOIES NAVIGABLES DE FRANCE

Social dumping

DOCUMENT NAME	SOURCE
ROAD CABOTAGE IN THE FREIGHT TRANSPORT MARKET - OPPORTUNITIES AND OBLIGATIONS	BERGMANN ATTORNEYS AT LAW
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 22 EMPLOYMENT AND TRAINING	CNT
ECSLA ANNUAL REPORT 2005	EUROPEAN COLD STORAGE AND LOGISTICS INDUSTRY
SOCIAL DUMPING EUROFOUND	EUROPEAN COMMISSION
SOCIAL DUMPING IN THE ECMT AREA - ROAD HAULAGE CASE	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
CAN POLICIES CAUSE COMPANIES TO ADOPT RESPONSIBLE BEHAVIOUR	LEONARDO DA VINCI UNIVERSITY
SOCIAL-ECONOMIC STUDY OF ROAD FREIGHT IN SPAIN (ESTUDIO SOCIO-ECONOMICO DEL TRANSPORTE POR CARRETERA EN ESPAÑA)	MINISTRY OF PUBLIC WORKS OF SPAIN
DIFFERENCES IN TAXATION ON HEAVY GOODS VEHICLES IN EUROPE	MINISTRY OF TRANSPORT AND COMMUNICATIONS
NEWS ARTICLE - EU DIRECTIVE ON TEMPORARY WORKERS COULD REDUCE SOCIAL DUMPING	NORDIC LABOUR JOURNAL
POSTING IN SWEDEN - FOREIGN EMPLOYEES WHO WORK FOR A LIMITED PERIOD	SWEDISH WORK ENVIRONMENT AUTHORITY
DIRECTIVE ON SERVICES IN THE INTERNAL MARKET	WIKIPEDIA

Training

DOCUMENT NAME	SOURCE
SWOT ANALYSIS OF THE SLOVAK REPUBLIC	CHEMLOG
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 18 ROAD USER CHARGING	CNT
BULLETIN ON TRANSPORT POLICIES AND STRATEGIES IN EUROPE - ISSUE 22 EMPLOYMENT AND TRAINING	CNT
ORDINANCE 1017-2009 (PORTARIA 10172009)	DIÁRIO DA REPÚBLICA

DOCUMENT NAME	SOURCE
SOCIAL DUMPING IN THE ECMT AREA - ROAD HAULAGE CASE	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
EU ROAD FREIGHT TRANSPORT SECTOR: WORK AND EMPLOYMENT CONDITIONS	EUROPEAN FOUNDATION FOR THE IMPROVEMENT OF WORKING AND LIVING CONDITIONS
ORIENTATIONS COURSES MAR2011 (ORIENTAÇÕES CURSOS MAR2011)	IMTT
ORIENTATIONS FOR TRAINING CENTERS (ORIENTACOES CENTROS FORMACAO_DL126-2009-B)	IMTT
ROAD FREIGHT TRAINING INSTITUTIONS MANUAL (MANUAL ENTIDADE FORMADORA TRANSPORTE RODOVIÁRIO MERCADORIAS)	IMTT
SOCIAL OBSERVATORY OF ROAD FREIGHT (OBSERVATORIO SOCIAL DEL TRANSPORTE POR CARRETERA)	MINISTRY OF PUBLIC WORKS OF SPAIN
STRATEGIC PLAN OF ACTION FOR ROAD FREIGHT (PLAN ESTRATÉGICO DE ACTUACIÓN PARA EL TRANSPORTE DE MERCANCÍAS POR CARRETERA)	MINISTRY OF PUBLIC WORKS OF SPAIN
STRENGTHENING FINLAND'S LOGISTICS POSITION	MINISTRY OF TRANSPORT AND COMMUNICATIONS
ANALYSIS OF PROFESSIONAL DRIVERS' TRAINING SYSTEM IN LITHUANIA	VILNIUS GEDIMINAS TECHNICAL UNIVERSITY

Other

DOCUMENT NAME	SOURCE
HAULIER INTERVIEWS	AECOM
SAFETY DOCUMENT	AECOM
FLAGGING OUT AS A POPULAR STRATEGY OF ROAD FREIGHT TRANSPORT COMPANIES	ASSOCIATION FOR EUROPEAN TRANSPORT
MODELLING VEHICLE UTILISATION, OPERATING COSTS AND EFFICIENCY OF THE LOGISTICS SERVICES SECTOR	ASSOCIATION FOR EUROPEAN TRANSPORT
TOWARDS REGULATION OF HISTORICALLY GROWN MONOPOLIES: MARKET MODELS FOR THE DUTCH WEST FRISIAN ISLAND FERRIES	ASSOCIATION FOR EUROPEAN TRANSPORT
INDUSTRIAL RELATIONS IN TRANSPORT SECTOR IN NETHERLANDS	AMSTERDAM INSTITUTE FOR ADVANCED LABOUR STUDIES
TRANSPORT IN SPAIN, A STRATEGIC SECTOR (EL TRANSPORTE EN ESPAÑA, UN SECTOR ESTRATÉGICO)	CETMO FOUNDATION
FREIGHT TRANSPORT RESEARCH SUMMARY	DG ENERGY AND TRANSPORT
EU ACCESSION ISSUES	DG MOBILITY AND TRANSPORT
REGULATION AND DEREGULATION OF TRANSPORT SECTOR	DG MOBILITY AND TRANSPORT
ROAD FREIGHT TRANSPORT VADEMECUM - 2010 REPORT: MARKET TRENDS AND STRUCTURE IN EU	DG MOBILITY AND TRANSPORT
AN INVESTIGATION OF THE IRISH ROAD HAULAGE INDUSTRY'S EXTERNAL ENVIRONMENT	DUBLIN INSTITUTE OF TECHNOLOGY
DRIVING FLEET FUEL EFFICIENCY - THE ROAD TO 2020	DUNLOP GOODYEAR

DOCUMENT NAME	SOURCE
BRIEFING POSTED WORKER DIRECTIVE EC/71/1996	EUROPEAN COMMISSION
HGV TRAFFIC SAFETY BASIC FACTS 2010	EUROPEAN COMMISSION
IMPACT ASSESSMENT ON COMMON RULES FOR CONDITIONS OF OCCUPATION FOR A ROAD TRANSPORT OPERATOR AND ACCESS TO THE INTERNATIONAL ROAD HAULAGE MARKET	EUROPEAN COMMISSION
REPORT ON THE CONSEQUENCE OF EXCLUDING SELF EMPLOYED DRIVERS FROM THE WORKING TIME DIRECTIVE	EUROPEAN COMMISSION
WHITE PAPER - ROADMAP TO A SINGLE EUROPEAN TRANSPORT AREA	EUROPEAN COMMISSION
SOCIAL DUMPING IN THE ECMT AREA - ROAD HAULAGE CASE	EUROPEAN CONFERENCE OF MINISTERS OF TRANSPORT
RELOCATION - CHALLENGES AND OPPORTUNITIES	EUROPEAN ECONOMIC AND SOCIAL COMMITTEE
COMPETITIVENESS IN EU ROAD FREIGHT TRANSPORT	EUROSTAT
METHODOLOGIES USED IN SURVEYS OF ROAD FREIGHT TRANSPORT IN MEMBER STATES	EUROSTAT
BRANCH SURVEY ON WORKING CONDITIONS IN FREIGHT ROAD TRANSPORT FOR AUSTRIA	FORBA
THE BURNS INQUIRY - FREIGHT TAXES	FREIGHT TRANSPORT ASSOCIATION
NATIONAL SUSTAINABLE DEVELOPMENT STRATEGY - HUNGARY	GOVERNMENT OF HUNGARY
TRANSPORT OPERATIONAL PROGRAMME - HUNGARY	GOVERNMENT OF HUNGARY
HEALTH AND SAFETY IN ROAD HAULAGE	HEALTH AND SAFETY EXECUTIVE
IRU RESPONSE TO EU WHITE PAPER	INTERNATIONAL ROAD TRANSPORT UNION
LIBERALISATION IN MARITIME TRANSPORT	INTERNATIONAL TRANSPORT FORUM
ROAD TRANSPORT IN EU OVERVIEW	INTERNATIONAL TRANSPORT FORUM
HUNGARY SUSTAINABLE ROADS - NATIONAL REPORT	ISTVAN UNIVERSITY
CAN POLICIES CAUSE COMPANIES TO ADOPT RESPONSIBLE BEHAVIOUR	LEONARDO DA VINCI UNIVERSITY
THE CONSTRUCTION AND OPERATION OF THE ROAD FREIGHT TRANSPORT MARKET IN EUROPE	LET
INTERNATIONAL ROAD FREIGHT TRANSPORT IN FRANCE - DRIVER COST ANALYSIS	LUMIERE UNIVERSITY
LORRY ROAD USER CHARGING - A WAY FORWARD FOR THE UK	METROPOLITAN TRANSPORT RESEARCH UNIT
POLAND YOUR BUSINESS PARTNER	MINISTRY OF ECONOMY
SOCIAL-ECONOMIC STUDY OF ROAD FREIGHT IN SPAIN (ESTUDIO SOCIO-ECONOMICO DEL TRANSPORTE POR CARRETERA EN ESPAÑA)	MINISTRY OF PUBLIC WORKS OF SPAIN
STRATEGIC PLAN OF ACTION FOR ROAD FREIGHT (PLAN ESTRATÉGICO DE ACTUACIÓN PARA EL TRANSPORTE DE MERCANCÍAS POR CARRETERA)	MINISTRY OF PUBLIC WORKS OF SPAIN

DOCUMENT NAME	SOURCE
DIFFERENCES IN TAXATION ON HEAVY GOODS VEHICLES IN EUROPE	MINISTRY OF TRANSPORT AND COMMUNICATIONS
EUROPEAN ROAD HAULAGE BROCHURE	PLIMSOLL ANALYSIS
ASSESSMENT OF ENVIRONMENTAL AND SECURITY COSTS IN ROAD FREIGHT (EVALUACIÓN DE LOS COSTES MEDIOAMBIENTALES Y DE SEGURIDAD EN EL TRANSPORTE DE MERCANCÍAS POR CARRETERA)	PUBLIC UNIVERSITY OF NAVARRE
EUROPEAN ROAD TRANSPORT & LOGISTICS MARKETS	RESEARCH AND MARKETS
MARKET INTELLIGENCE FOR THE TRANSPORT & LOGISTICS INDUSTRY	TRANSPORT INTELLIGENCE
REVIEW OF THE INTERNAL MARKET IN ROAD FREIGHT TRANSPORT	UK TRANSPORT IN EUROPE
ROAD FREIGHT IN CASTILE AND LEON (EL TRANSPORTE DE MERCANCÍAS POR CARRETERA EN CASTILLA Y LEÓN)	UNIVERSITY OF LEON
SOFTICE - SURVEY ON FREIGHT TRANSPORT COSTS IN EUROPE (INC. POLAND)	UNIVERSITY OF ROME
WHAT IS IMPORTANT FOR TRAFFIC SAFETY OF HGVS	UNIVERSITY OF TURKU
INTERNALISATION OF FREIGHT TRANSPORT EXTERNAL COSTS IN THE PARIS-AMSTERDAM CORRIDOR	VOIES NAVIGABLES DE FRANCE
GREECE: FIRST REVIEW UNDER THE STANDBY ARRANGEMENT	WORLD BANK
POLAND - TOWARD A SUSTAINABLE LAND TRANSPORT SECTOR - SUMMARY	WORLD BANK
ROAD FREIGHT LOGISTICS, COMPETITION AND INNOVATION: DOWNSTREAM BENEFITS AND POLICY IMPLICATIONS	WORLD BANK