Transport

10

An efficient and well-functioning passenger and freight transport system is vital for European Union (EU) enterprises and inhabitants. The EU's transport policy aims to foster clean, safe and efficient travel throughout Europe, underpinning the internal market for goods (transferring goods between their place of production and consumption) and the right of citizens to travel freely throughout the Union (for work or for pleasure).

No other sector of the European economy has seen its greenhouse gas emissions grow as rapidly as that of transport. This may be linked to a sizeable increase in transport volumes, as a result of (among others), trade liberalisation, globalisation, higher motorisation rates, and an increase in the number of holidays and short breaks that are taken by Europeans. Such changes have resulted in an increase in the relative share of greenhouse gas emissions accounted for by the transport sector.

On the other hand, some progress has been made in reducing air pollution within the transport sector: for example, through the application of stricter Euro emission standards. Furthermore, the energy efficiency of the transport sector has improved: for example, through the development of more efficient and hybrid vehicles, or a shift in freight transport to alternative modes such as short sea shipping. Generally, these efficiency gains have failed to outweigh the increased volume of transport. More recently, the EU has established a binding target for Member States, whereby 10 % of the fuel used within their transport sectors should be derived from sustainable and renewable energy sources by 2020.

The European Commission's Directorate-General for Mobility and Transport is responsible for developing transport policy within the EU. Its remit is to ensure mobility in a single European transport

area, integrating the needs of the population, environmental policy, and competitiveness. It aims to do so by:

- completing the European internal market: so as to ensure the seamless integration of all modes of transport into a single, competitive transport system, while protecting safety and security, and improving the rights of passengers;
- developing an agenda for innovation: promoting the development of a new generation of sustainable transport technologies, in particular for integrated traffic management systems and low-carbon vehicles;
- building a trans-European network as the backbone of a multimodal, sustainable transport system capable of delivering fast, affordable and reliable transport solutions;
- projecting these mobility and transport objectives and defending EU political and industrial interests on the world stage, within international organisations, and with strategic partners.

The European Commission's White paper titled, 'European transport policy for 2010: time to decide' (COM(2001) 370 final) is the foundation of the EU's sustainable transport policy; it was supplemented in June 2006 by a mid-term review in the form of a Communication to the Council and the European Parliament, titled 'Keep Europe moving – sustainable mobility for our continent' (COM(2006) 314 final). The key conclusions of this mid-term review proposed that each transport

mode should be: optimised to help ensure competitiveness and prosperity; more environmentally-friendly and energy-efficient; safe and secure; used efficiently on its own and in combination to achieve an optimal and sustainable utilisation of resources. The Communication proposed a wide range of implementing measures including:

- environmental commitments – such as those under the Kyoto Protocol, as well as air quality, noise pollution, and land use;
- a greater focus on technology – including further research and development into areas such as intelligent transport systems (such as Galileo, SESAR and ERTMS, involving communication, navigation and automation, and engine technology that could improve fuel efficiency), as well as the modernisation of air traffic systems, improvements in safety and security, urban mobility and the decongestion of transport corridors;
- consolidation within the transport sector – especially in aviation and maritime transport, but also with the creation of large logistics enterprises with worldwide operations;
- enlargement – allowing the possibility to expand trans-European networks to corridors that are particularly suitable for rail and waterborne transport;
- changes in the international context, such as the threat of terrorism, or globalisation that have affected trade

flows and increased demand for international transport services.

The European Commission has launched a range of action plans on key transport policy issues, among which: a Green paper on urban transport (COM(2007) 551 final); a proposal for a Directive on the charging of heavy goods vehicles for the use of certain infrastructures (COM(2008) 436 final); a Communication to the European Parliament and Council titled 'Greening transport' (COM(2008) 433 final); and a freight transport logistics action plan (COM(2007) 607 final).

As the ten-year period covered by the White paper was drawing to an end, the European Commission adopted a Communication in mid-2009, titled, 'A sustainable future for transport: towards an integrated, technology-led and user friendly system' (COM(2009) 279 final); this was aimed at identifying policy options to be tested and eventually included in the next White paper. The Communication was both consultative and strategic in nature, and underlined the challenges of reducing greenhouse gas emissions, the growing demand for – but increasing scarcity of – fossil fuels, and increasing levels of congestion in many cities, airports and ports. The new transport policy White paper is, at the time of writing, under preparation and will is expected to be adopted in the spring of 2011.

Eurostat's transport statistics describe the most important features of transport, not only in terms of the quantities of freight and numbers of passengers that are moved each year, or the number of vehicles and infrastructure that are used, but also the contribution of transport services to the economy as a whole. Data collection is supported by several legal acts obliging the Member States to report statistical data, as well as voluntary agreements to supply additional data.

10.1 Transport accidents

Safety and security are of primary concern for any transport system. According to Eurostat statistics on the causes of death (see Subchapter 3.2), there were 44 355 people in the European Union (EU) in 2008 who died as a result of transport accidents, across all transport modes; this figure may be compared with 62 846 deaths in 1999 (the first year of the time series for the EU-27).

While rail, air, or sea transport incidents often receive considerable media coverage as they generally involve larger numbers of people, road accidents are often treated in a more mundane manner by the media, despite the fact that Europe's roads account for the vast majority of transport accidents and deaths.

Main statistical findings

Road accidents

The annual number of road fatalities in the EU is falling, despite the growth (prior to the economic and financial crisis) in passenger and freight transport. The reduction in road fatalities may be attributed, among others, to: improved road design; stricter enforcement of drinking and driving legislation; improved vehicle safety standards; the introduction of speed limits; stricter rules on lorry and bus driving times; and reduced lorry overloads.

Indeed, the number of road fatalities in the EU-27 fell sharply during the decade between 1999 and 2009, from 57 691 deaths to an estimated 34 500 deaths (down 40.2 % overall). Nevertheless, the number of people killed on Europe's roads still accounted for almost nine out of every ten deaths resulting from transport accidents in 2009. The use of alcohol or drugs, the failure to observe speed limits, and the refusal to wear seatbelts are involved in about half of all road fatalities in the EU. Road accidents remain the largest single cause of death among people under 45 years of age.

The road fatality rate, expressed as the number of deaths per million inhabitants, averaged 78 across the EU-27 in 2008, although there were stark contrasts between Member States (see Figure 10.1). The highest road fatality rates were recorded in Lithuania (148 deaths per million inhabitants), Poland (143), Romania (142), Bulgaria, Greece and Latvia (all 139). The rates reported by these six countries were con-siderably higher than in the other Member States, as the next highest figure was recorded for Slovenia (106). In contrast, road fatality rates were much lower in Sweden, the United Kingdom (both 43), the Netherlands (41), and Malta (37).

Rail accidents

Some 2 848 people were victims (seriously injured or killed) of railway accidents in the EU-27 in 2008 (see Table 10.1); this represented a slight reduction (59 victims) compared with the year before; it should be noted that the number of victims in any particular year can be greatly influenced by a small number of major accidents. Of the total number of victims seriously injured or killed in railway accidents in the EU-27 in 2008, a little over one sixth (17.4 %) were either train passengers or railway employees. Approximately two thirds (68.6 %) of the lives lost in rail accidents were from incidents involving rolling stock in motion, with almost all the others (26.6 %) from incidents at level-crossings. The highest numbers of rail fatalities within the EU in 2008 occurred in Poland (308) and Romania (208).

Air accidents

In a similar manner to rail accidents, the number of air fatalities has an irregular pattern, due to the relatively low number of accidents each year and the large variations in terms of people involved in each event. Figure 10.2 shows that there was a single, major aircraft accident within the EU-27 in 2008; this took place at Madrid's Barajas International Airport on 20 August, when a flight crashed just after take-off, with 154 fatalities.

Data sources and availability

Road accidents

CARE is the EU's road accident database that collects information on accidents resulting in death and/or injury. The legal basis for CARE is Council Decision 93/704/EC on the creation of a database on road accidents. Its purpose is to provide information which makes it possible to: identify and quantify road safety problems; evaluate the efficiency of road safety measures; determine the relevance of EU actions; and facilitate the exchange of experiences. Accidents resulting in death or injury refer to any collision between road users involving at least one vehicle in motion on a public highway normally open to traffic and causing the death of and/or injury to one or more of the road users. The statistics include drivers and passengers of motorised vehicles, bicycles, as well as pedestrians that are involved in road accidents. Road deaths are recorded during a period of up to 30 days after the accident.

Rail accidents

The legal basis for the collection of statistics on rail accidents is Regulation 91/2003 on rail transport statistics (Annex H), amended by Regulation 1192/2003. The data collected includes information on the number of persons killed or injured (by category of persons) and the number of accidents (by type of accident). An accident involves at least one rail vehicle in motion, resulting in at least one person being killed or seriously injured, or in significant damage to stock, track, other installations, the environment, or extensive disruptions to traffic. As with road deaths, rail deaths are defined in terms of any person who is killed within 30 days as a result of a rail accident. A seriously injured person is defined as someone who is hospitalised for more than 24 hours as a result of a rail accident. Rail accident statistics are available from 2004 or 2006 onwards for all EU Member States, except for Malta and Cyprus (where there are no railways).

Air accidents

The questionnaire on air transport safety statistics is not supported by any legal acts. Rather, it is based on a gentlemen's agreement with the participating countries (EU Member States, EFTA and candidate countries). The final section of the questionnaire (part IV) deals with the topic of accidents. It contains requests for information on the number of injuries and the number of fatalities that take place as a result of aircraft accidents. Accidents are measured during the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked (injuries sustained from natural causes or injuries that are self-inflicted are excluded). As with the other modes of transport, a fatal injury is one that results in death within 30 days of the accident.

Context

In a White paper titled European transport policy for 2010: time to decide (COM(2001) 370), the European Commission set an ambitious target of halving the number of road deaths in the EU by 2010. The objective to halve road

casualties by 2010 has led to action being taken to reduce the number and severity of transport accidents: this has been achieved via educational programmes, stricter limits being placed on permitted blood alcohol levels and speed, the introduction of technical measures such as safety belts and air bags, as well as traffic control measures.

In June 2003, a European Commission Communication launched an action programme for European road safety (COM(2003) 311), which encouraged:

- road users to improve their behaviour in particular through greater respect of existing rules, initial and continuous training of private and professional drivers, and better law enforcement against dangerous behaviour;
- the use of technical progress to make vehicles safer through improved safety performance standards;

- the improvement of road infrastructure, in particular through the identification and diffusion of best practices and the elimination of black spots through the European Road Assessment Programme (EuroRAP) and the European Tunnel Assessment Programme (EuroTAP).

Railway, aviation and shipping accidents result in far fewer deaths than road accidents. The main reason for this is the limited size of these sectors, relative to the number of cars and goods vehicles that are on Europe's roads. However, when accidents involving trains, planes or ships do occur they have the potential to cause considerable environmental damage and often result in serious commercial and financial consequences. Major transport accidents are almost always investigated in great depth in order to find the cause of the accident, such that a reoccurrence may be prevented.

Figure 10.1: People killed in road accidents, 2008 ([1])
(persons killed per million inhabitants)
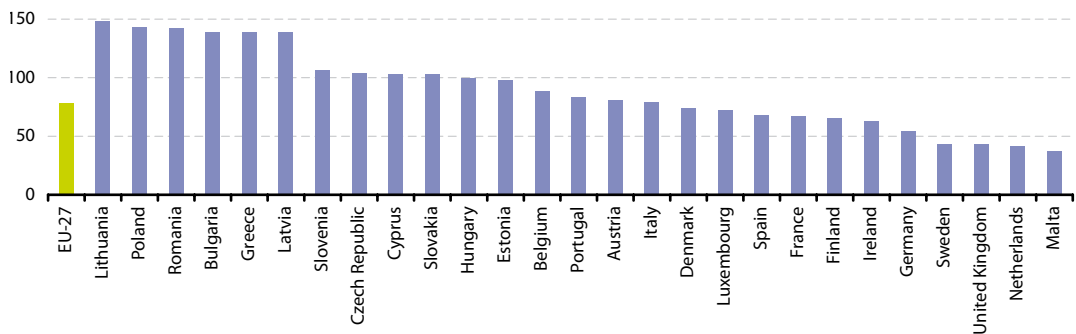
([1]) Italy, 2006.

Source: Eurostat (tsdtr420), European Commission CARE database (Community Database on Road Accidents)

Table 10.1: Rail accidents by type of victim and accident, EU-27, 2008 (¹)
(number of persons)

	Total		Passengers		Railway employees		Others	
	Killed	Seriously injured	Killed	Seriously injured	Killed	Seriously injured	Killed	Seriously injured
Total	1 498	1 350	89	255	40	112	1 369	983
Collisions (excluding level-crossing accidents)	23	92	12	64	6	20	5	8
Derailments	3	15	2	12	1	3	0	0
Accidents involving level-crossings	399	458	0	9	2	14	397	435
Accidents to persons caused by rolling stock in motion	1 028	684	53	115	25	48	950	521
Fire in rolling stock	9	5	9	5	0	0	0	0
Others	36	96	13	50	6	27	17	19

(¹) Slightly injured persons are not included in rail accident statistics.

Source: Eurostat (rail_ac_catvict)

Figure 10.2: Air transport accidents - number of fatalities, 2008 (¹)
(persons killed)
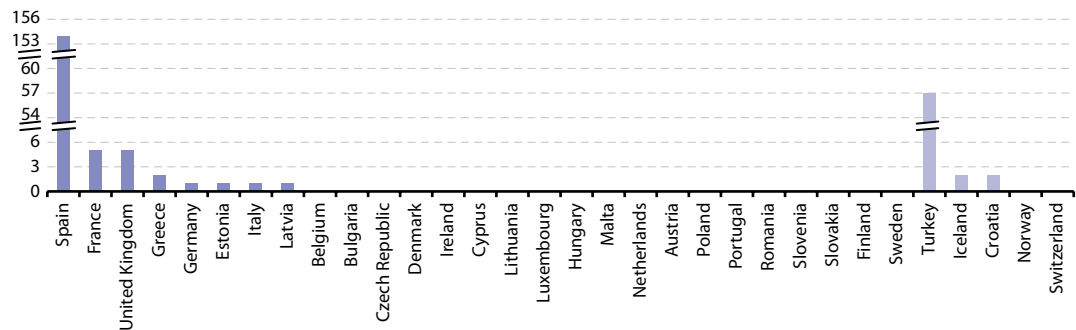
(¹) Accidents on national territory regardless of the nationality of the aircraft operator; Denmark, Germany, Greece, Luxembourg, Norway, Switzerland and Turkey, 2007.

Source: Eurostat (avia_ac_fatal)

10.2 Passenger transport

This subchapter provides details relating to recent trends for passenger transport statistics. It presents information on a range of different passenger transport modes, such as road, rail, air and maritime, within the European Union (EU). Among these, the most dominant mode of passenger transport is that of the car, likely fuelled by a desire to have greater mobility and flexibility. The high reliance on the car as a means of passenger transport across the EU has resulted in increased congestion and pollution.

Main statistical findings

Passenger cars accounted for 83.3 % of inland passenger transport in the EU-27 in 2008, with buses and coaches (9.4 %) and railways, trams and metros (7.3 %) both accounting for slightly less than a tenth of the total volume of traffic (as measured by the number of inland passenger-kilometres (pkm) travelled by each mode) – see Table 10.2.

In the vast majority of EU Member States, GDP grew faster than the volume of inland passenger transport between 2000 and 2008 (see Table 10.3). Most notably GDP grew about one third faster than the rate of growth for the volume of inland passenger transport in Slovakia and Hungary. The main exceptions were Lithuania and Latvia where the rate of growth in the volume of inland passenger transport was between one quarter and one third faster than the rate of growth for GDP; other ex-

ceptions were recorded for Poland, Portugal and Greece.

It should be noted that the analysis above refers only to inland transport by car, bus or train and that a significant proportion of international passenger travel is accounted for by maritime and air transport passenger services, while in some countries national (domestic) maritime and air transport passenger services may also be of note.

Road passengers

A reliance on the car for making journeys was particularly high in Lithuania, the United Kingdom, the Netherlands and Slovenia, where it accounted for upwards of 86 % of all inland passenger-kilometres in 2008. More than a fifth of the inland passenger-kilometres travelled in Hungary and Bulgaria were by bus or coach.

Between 2000 and 2008 there was a marked increase in the use of passenger cars among many of those Member States that joined the EU in 2004 or 2007, in particular, Bulgaria and Poland. In contrast, the relative importance of cars as a mode of inland passenger transport fell in ten of the EU-15 Member States. The most sizeable reductions in the relative importance of the car between 2000 and 2008 were recorded in Italy, Spain and the United Kingdom (where the share of the car in total inland passenger transport fell 1.4 percentage points), France (-1.9 points) and Belgium (-5.0 points).

Rail passengers

There were 371 930 million passenger-kilometres travelled on national railway networks within the EU-27 in 2007; this figure was considerably higher than the 20 295 million passenger-kilometres travelled on international journeys. More than a tenth of all inland passenger-kilometres travelled in Hungary, Austria and France were made on rail networks (including trains, trams and underground railways/metros).

Approximately two thirds of all rail travel (national and international combined) was accounted for by the four largest EU Member States (note that neither Cyprus nor Malta has a railway network), with France and Germany together accounting for close to half (46.3 %) of the EU's passenger total. The number of international passenger-kilometres travelled by French passengers was, at 7 546 million passenger-kilometres, almost twice the level for Germany (3 870 million passenger-kilometres), which in turn recorded a figure that was more than double that for the United Kingdom (1 690 million passenger-kilometres).

In order to compare the relative importance of rail transport between countries, the data can be normalised by expressing passenger volumes in relation to population (see Table 10.4). France, Sweden and Denmark – all at more than 1 000 passenger-kilometres per inhabitant – registered the longest average distances travelled on national railways in 2008. In terms of international rail travel, the highest distances covered were for Luxembourg, Austria and France (the only Member States to report averages above

100 passenger-kilometres per inhabitant). These figures may reflect, among others, the proximity of international borders, the importance of international commuters within the workforce, access to high-speed rail links, and whether or not international transport corridors run through a particular country.

Note that Subchapter 10.1 on transport accidents provides more detailed information in relation to rail accidents, including breakdowns of EU-27 data according to the type of victim and accident.

Air passengers

London Heathrow was the busiest airport in the EU-27 in terms of passenger numbers in 2009 (65.9 million), followed by Paris' Charles de Gaulle airport (57.7 million), and then Frankfurt airport, Madrid's Barajas airport and Amsterdam's Schiphol airport (all with between 50.6 million and 43.5 million passengers) – see Figure 10.4.

With the exception of Barajas, the overwhelming majority (about 90 %) of passengers through the other four largest airports in the EU were on international flights. In contrast, national (domestic) flights accounted for 39.3 % of the passengers carried through Barajas in 2009. There were also relatively high proportions of passengers on national flights to and from Paris' Orly airport (54.8 %), Barcelona airport (40.6 %) and Rome's Fiumicino airport (37.6 %).

Just over 750 million passengers were carried by air in 2009 in the EU-27 (see Table 10.5); the number of air passengers had stagnated in 2008, while the number of air passengers fell by 5.9 % in 2009.

The United Kingdom reported the highest number of air passengers in 2009, with almost 199 million or 3.2 passengers per inhabitant (which was more than double the EU-27 average). Relative to population size, the importance of air travel was particularly high for the popular holiday islands of Cyprus and Malta (8.4 and 7.1 passengers carried per inhabitant).

Maritime passengers

Table 10.5 shows the number of maritime passengers, with ports in the EU-27 handling 413 million passengers in 2008; this marked a slight reduction of 0.3 % compared with 2007. Greek and Italian ports handled more passengers in 2008 than those of any other Member State (accounting for 22.1 % and 21.8 % of the EU-27 total respectively); they were followed by Danish ports (data for 2009) and then, with roughly similar numbers, ports in Sweden, the United Kingdom and Germany.

Relative to national population, the importance of maritime passenger transport was particularly high in Malta (18.9 passengers per inhabitant in 2009), followed by Greece (8.1), Denmark (7.9, 2009) and Estonia (6.9); in the remaining Member States, other than Sweden, Finland (2009) and Italy, the number of maritime passengers per inhabitant averaged less than one in 2008.

Data sources and availability

The majority of inland passenger transport statistics are based on movements of vehicles in each reporting country, regardless of the nationality of the vehicle or vessel involved (the 'territoriality principle'). For this reason, the volume measure of passenger-kilometres is generally considered as a more reliable measure, as a count of passengers entails a higher risk of double-counting, particularly for international transport. The methodology used across the Member States is not harmonised for road passenger transport. As such, the figures, especially those for the smallest reporting countries, may be somewhat unreliable.

The modal split of inland passenger transport identifies transportation by passenger car, bus and coach, and train; it generally concerns movements on the national territory, regardless of the nationality of the vehicle. The modal split of passenger transport is defined as the percentage share of each mode and is expressed in passenger-kilometres (pkm), which represent one passenger travelling a distance of one kilometre. For the purpose of this subchapter, the aggregate for inland passenger transport excludes domestic air and water transport services (inland waterways and maritime).

The volume of inland passenger transport (measured in pkm) may also be expressed in relation to gross domestic product (GDP); within this subchapter the indicator is presented in constant prices for the reference year 2000, providing information on the relationship between passenger demand and economic growth, with the series indexed on 2000=100, so that the annual intensity of passenger transport demand can be monitored relative to economic developments.

Rail passengers

A rail passenger is any person, excluding members of the train crew, who makes a journey by rail. Rail passenger data are not available for Malta and Cyprus (or Iceland) as they do not have railways.

Annual passenger statistics for national and international breakdowns generally only cover larger rail transport enterprises, although some countries use detailed reporting for all railway undertakings.

Air passengers

Air transport statistics concern national and international transport, as measured by the number of passengers carried; information is collected for arrivals and departures. Air passengers carried relate to all passengers on a particular flight (with one flight number) counted once only and not repeatedly on each individual stage of that flight. Air passengers include all revenue and non-revenue passengers whose journey begins or terminates at the reporting airport and transfer passengers joining or leaving the flight at the reporting airport; but excludes direct transit passengers. Air transport statistics are collected with monthly, quarterly and annual frequencies, although only the latter are presented in this subchapter. There are also air transport passenger statistics on the number of commercial passenger flights made, as well as information relating to individual routes and the number of seats available. Annual data are available for most of the EU Member States from 2003 onwards.

Maritime passengers

Maritime transport data are available for most of the period from 2001 onwards, although some EU Member States have provided data since 1997. Maritime transport data are not transmitted by the Czech Republic, Luxembourg, Hungary, Austria or Slovakia, as none of these has any maritime traffic. A sea passenger is defined as any person that makes a sea journey on a merchant ship; service staff are not regarded as passengers, neither are non-fare paying crew members travelling but not assigned, while infants in arms are also excluded. Double counting may arise when both the port of embarkation and the port of disembarkation reports data; this is quite common for the maritime transport of passengers, which is generally a relatively short distance activity.

More detailed definitions of the statistical terms used within transport statistics are available in the Illustrated glossary for transport statistics, 4th edition, 2010.

Context

EU transport policy seeks to ensure that passengers benefit from the same basic standards of treatment wherever they travel within the Union. The EU legislates to protect passenger rights across the different modes of transport.

Legislation for aviation (Regulation 261/2004 establishing 'common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delays of flights') and rail travel (Regulation 1371/2007 on 'rail passengers' rights and obligations') are already in force, while two European Commission proposals for regulations have been made concerning passenger rights in the field of bus and coach travel (2008/0237 (COD)) and sea and inland waterway passenger transport (2008/0246 (COD)).

Passengers already have a range of rights covering areas as diverse as: information about their journey; reservations and ticket prices; damages to their baggage; delays and cancellations; or difficulties

encountered with package holidays. Specific provisions have also been developed in order to ensure that passengers with reduced mobility are provided with necessary facilities and not refused carriage unfairly.

A mid-term review of 'European transport policy for 2010' (COM(2001) 370) was presented in the form of a Communication to the Council and the European Parliament, titled 'Keep Europe moving – sustainable mobility for our continent' (COM(2006) 314). The review made a number of suggestions for new areas of policy development, including: intelligent transport systems to make mobility greener and more efficient; a debate on how to change the mobility of people in urban areas; an action plan to boost inland waterways, and; a programme for green power in cars.

Around 80 % of the EU's population lives in an urban area. The mid-term review therefore also suggested that local, regional and national authorities could benefit from studying best-practices in urban areas for a range of issues, including: transport infrastructure; congestion and traffic management; public transport services; infrastructure charging; urban planning; safety; security, and; cooperation with the surrounding region.

These ideas were expanded upon in September 2007 when the European Commission published a Green paper titled, 'Towards a new culture for urban mobility' (COM(2007) 551 final. The document addressed, for example, how: the quality of collective transport could be improved; the use of clean and energy efficient technologies could be increased;

walking and cycling could be promoted, and; the rights of passengers on public transport could be protected. In September 2009 an 'Action plan on urban mobility' ((COM(2009) 490) was adopted by the European Commission. It proposed 20 different measures to encourage and help local, regional and national authorities to achieve their goals for sustainable urban mobility. Many of the proposals were linked to finding practical alternatives to the private use of cars, they included:

- raising the quality and accessibility of public transport services and increasing their capacity to respond flexibly to changes in transport needs;
- making walking and cycling more attractive by offering more favourable conditions;
- reducing the demand for travel, for example, by reversing the trend for housing, jobs, and schools to disperse to places which are hard to reach except by car;
- actively managing car use in congested areas;
- making transport an essential component of strategies for spatial planning, economic development and social cohesion;
- fostering new, flexible working time arrangements;
- encouraging the creation of door-to-door transport systems which people can use as an integrated network.

However, intra-urban transport is only one element of passenger transport policy and the enlargement of the EU has created additional opportunities for inter-urban passenger travel by rail, road or airplane, which may be strengthened

through a range of infrastructure developments, including, among others, extensions to high-speed rail networks or increased air traffic capacity and coordination (the 'single European sky' policy). Furthermore, while congestion and pollution are often cited as problems linked to an excessive amount of traffic in urban areas, rural areas are more often characterised by concerns over the frequency and continuing availability of public transport services.

Table 10.2: Modal split of inland passenger transport (¹)
(% of total inland passenger-km)

	2000			2008		
	Passenger cars	Buses	Railways, trams and metros	Passenger cars	Buses	Railways, trams and metros
EU-27	*83.1*	*9.8*	*7.1*	*83.3*	*9.4*	*7.3*
Belgium	83.4	10.5	6.1	78.4	14.4	7.2
Bulgaria	*59.8*	*32.4*	*7.7*	*75.9*	*20.0*	*4.1*
Czech Republic	*73.2*	*18.5*	*8.3*	76.0	16.9	7.1
Denmark	79.8	11.6	8.6	79.4	11.1	9.4
Germany	85.2	7.1	7.7	85.1	6.3	8.6
Estonia	:	:	:	79.4	18.5	2.1
Ireland	*83.7*	*13.3*	*3.0*	*83.8*	*12.8*	*3.4*
Greece	*72.8*	*25.1*	*2.2*	*80.8*	*17.9*	*1.3*
Spain	81.5	13.5	5.0	80.1	14.4	5.5
France	86.1	5.3	8.6	84.2	5.7	10.1
Italy	83.8	10.8	5.4	*82.4*	*11.9*	*5.7*
Cyprus	:	:	-	:	:	-
Latvia	:	:	:	80.6	14.1	5.3
Lithuania	:	:	:	90.9	8.2	1.0
Luxembourg	*85.5*	*9.5*	*5.1*	*84.2*	*11.4*	*4.3*
Hungary	62.1	25.0	12.9	62.1	25.7	12.3
Malta	:	:	-	:	:	-
Netherlands	86.0	4.6	9.4	*86.5*	*3.8*	*9.7*
Austria (²)	79.2	11.0	9.8	78.6	10.2	11.1
Poland	72.8	15.4	11.7	85.5	8.4	6.2
Portugal	*81.9*	*13.6*	*4.4*	*85.2*	*10.7*	*4.1*
Romania	*72.5*	*10.9*	*16.5*	*77.2*	*15.2*	*7.6*
Slovenia	82.9	14.3	2.9	86.2	10.9	2.9
Slovakia	67.9	23.9	8.1	74.9	18.6	6.5
Finland	83.4	11.5	5.1	84.5	10.1	5.4
Sweden	83.7	8.7	7.6	83.3	7.4	9.3
United Kingdom	88.2	6.4	5.3	86.8	6.4	6.8
Iceland	87.0	13.0	0.0	88.6	11.4	-
Norway	87.0	7.7	5.3	87.6	7.3	5.1
Croatia	*81.4*	*13.6*	*5.1*	*82.2*	*12.5*	*5.4*
FYR of Macedonia	*83.2*	*13.3*	*3.5*	*78.3*	*19.4*	*2.3*
Turkey	*45.9*	*50.7*	*3.4*	*51.0*	*46.8*	*2.2*

(¹) Excluding powered two-wheelers.
(²) The railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics.

Source: Eurostat (tsdtr210)

Table 10.3: Volume of inland passenger transport
(index of inland passenger transport volume relative to GDP (2000=100))

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-27	:	:	100.0	:	99.8	:	:	96.3	95.7	94.7	93.5
Belgium	104.8	103.1	100.0	101.8	102.4	100.7	99.8	98.4	96.9	97.6	96.4
Bulgaria	101.0	103.0	100.0	99.8	100.0	92.7	88.1	84.0	82.7	82.4	81.8
Czech Republic	100.0	100.6	100.0	98.6	96.9	95.5	90.5	86.6	82.6	79.5	77.7
Denmark	104.7	103.5	100.0	98.0	97.7	98.0	95.7	93.8	92.3	92.7	93.9
Germany	104.6	104.7	100.0	100.9	101.4	101.1	101.5	99.4	97.8	95.9	93.1
Estonia	:	:	100.0	:	:	:	:	83.3	76.6	71.3	75.6
Ireland	113.0	105.2	100.0	98.1	93.4	91.5	89.1	86.3	84.8	84.3	88.8
Greece	94.5	97.8	100.0	101.5	102.7	101.0	99.9	102.1	102.2	102.8	104.0
Spain	101.6	102.3	100.0	98.4	97.2	95.8	96.0	94.5	90.9	90.2	89.1
France	103.8	103.3	100.0	101.6	101.6	101.0	98.8	96.2	94.1	92.9	92.3
Italy (¹)	96.4	95.5	100.0	97.4	96.4	96.4	96.1	92.7	97.1	98.2	93.9
Cyprus	:	:	100.0	:	:	:	:	:	:	:	:
Latvia	:	:	100.0	:	99.8	:	:	133.0	132.6	132.7	125.6
Lithuania	:	:	100.0	:	93.3	98.8	120.2	145.6	151.3	137.4	129.3
Luxembourg	105.3	97.5	100.0	101.3	99.8	98.6	95.9	94.3	91.7	88.9	91.8
Hungary	106.1	103.6	100.0	96.3	93.1	89.3	85.4	79.9	77.0	68.9	69.1
Malta	:	:	100.0	:	:	:	:	:	:	:	:
Netherlands (²)	106.0	103.8	100.0	98.5	99.8	99.5	100.8	97.3	94.1	91.5	88.8
Austria	104.1	102.3	100.0	100.0	99.6	100.0	98.5	97.3	95.7	93.3	93.7
Poland	103.8	100.3	100.0	101.5	103.1	101.3	99.6	102.2	104.5	105.6	112.5
Portugal	99.8	100.6	100.0	99.8	102.8	108.2	108.8	110.4	109.5	108.5	109.3
Romania	:	101.4	100.0	94.9	89.0	90.0	85.3	87.0	83.8	81.9	80.1
Slovenia	105.4	105.7	100.0	98.7	96.7	94.7	92.5	89.7	86.4	85.5	84.0
Slovakia	89.9	93.0	100.0	96.4	94.1	88.3	81.9	79.3	74.8	66.9	61.8
Finland	105.4	103.7	100.0	99.1	99.5	99.5	97.7	96.4	92.7	90.8	89.8
Sweden	104.4	102.8	100.0	99.6	99.6	99.5	95.8	93.1	89.5	89.8	89.6
United Kingdom	106.4	104.2	100.0	99.7	100.7	97.6	96.0	93.6	92.3	90.7	89.7
Iceland	89.9	89.8	100.0	103.7	106.5	107.0	102.5	101.9	102.7	88.3	88.9
Norway	102.9	102.1	100.0	99.8	100.2	101.1	98.4	97.3	95.8	95.2	92.7
Croatia	93.1	98.5	100.0	100.8	99.4	96.9	95.3	93.3	92.9	92.6	94.7
FYR of Macedonia	:	:	100.0	100.0	103.7	107.9	107.7	104.9	101.6	97.9	102.0
Turkey	:	108.1	100.0	100.6	97.0	94.1	93.3	93.0	92.7	93.5	96.8

(¹) Break in series, 2000.
(²) Break in series, 2003.

Source: Eurostat (tsien070)

Table 10.4: Rail passenger transport

|	Rail passenger transport (million passenger-km)				Rail passenger transport (passenger-km per inhabitant) (¹)				Rail accidents (number of persons)			
	National		International		National		International		Killed		Seriously injured	
	2007	2008	2007	2008	2007	2008	2007	2008	2008	2009	2008	2009
EU-27	371 930	:	20 295	:	751	:	42.9	40.8	1 498	:	1 350	:
Belgium	8 547	8 913	856	1 226	807	836	73.6	80.9	15	15	26	26
Bulgaria	2 342	2 264	62	52	305	296	5.8	8.1	44	28	38	22
Czech Republic	6 536	6 324	362	449	635	609	34.9	35.2	44	26	139	92
Denmark	5 554	5 604	425	478	1 020	1 023	66.1	78.0	12	15	9	15
Germany	79 098	81 764	3 587	3 870	961	994	42.1	43.6	182	:	180	:
Estonia	246	245	27	28	183	183	19.3	20.1	9	10	10	7
Ireland	1 898	1 872	109	104	440	425	:	25.3	3	4	1	5
Greece	1 853	1 599	77	59	166	143	5.7	6.9	17	22	29	22
Spain	19 742	21 853	223	221	444	483	16.3	13.9	49	41	24	21
France	74 473	78 970	7 488	7 546	1 170	1 234	118.7	118.6	93	76	39	61
Italy	44 707	44 708	1 278	1 059	756	750	46.4	21.6	68	82	39	71
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	889	865	86	76	390	381	40.5	37.7	29	17	31	12
Lithuania	223	235	24	22	66	70	6.5	7.1	40	25	13	9
Luxembourg	233	246	84	99	489	508	168.4	176.4	0	0	0	0
Hungary	8 379	7 912	372	379	832	788	33.1	37.0	115	91	60	86
Malta	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	15 085	:	803	:	922	:	15.4	15.5	20	14	6	9
Austria	7 235	8 235	1 279	1 452	873	990	146.5	154.1	40	36	53	65
Poland	18 952	19 324	573	439	497	507	14.8	15.0	308	368	266	200
Portugal	3 933	4 093	55	120	371	385	5.2	5.2	42	:	39	:
Romania	7 271	6 725	146	152	337	312	7.6	6.8	208	150	233	186
Slovenia	690	713	49	53	343	355	24.0	24.4	9	11	41	14
Slovakia	1 970	2 094	195	202	365	388	31.5	36.2	56	73	38	35
Finland	3 675	3 940	103	112	696	743	17.7	19.5	21	14	6	10
Sweden	9 767	10 462	494	555	1 072	1 139	64.1	54.8	15	:	9	:
United Kingdom	48 633	51 196	1 537	1 690	800	837	24.4	25.3	59	56	21	13
Liechtenstein (²)	:	:	:	:	:	:	:	:	0	0	0	0
Norway	2 840	2 988	21	31	607	631	8.8	13.0	1	3	1	4
Switzerland	:	15 673	:	912	:	2 064	:	:	23	29	40	34
Croatia	1 508	1 703	65	66	340	384	14.6	14.6	13	50	45	65
Turkey	5 472	4 999	81	98	79	71	37.3	39.7	111	89	247	303

(¹) Slovenia, break in series, 2008.
(²) The railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics (other than for accidents).

*Source:* Eurostat (rail_pa_typepkm, tps00001 and rail_ac_catvict)

Figure 10.3: Rail passenger transport, 2008 (¹)
(passenger-km per inhabitant)

■ **National, left-hand axis**
■ **International, right-hand axis**
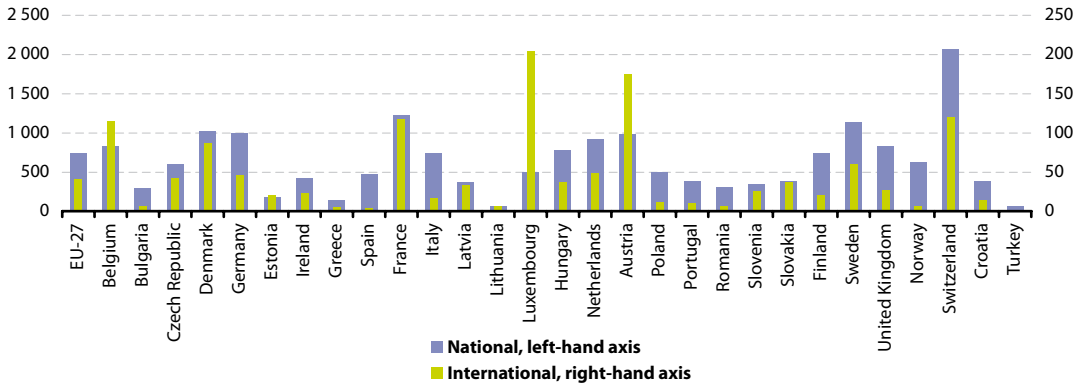
(1) EU-27 and the Netherlands, 2007; Ireland and the United Kingdom, estimates; Slovenia, break in series, 2008; Cyprus and Malta, not applicable; the railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics.

Source: Eurostat (rail_pa_typepkm and tps00001)

Figure 10.4: Top 15 airports, passengers carried (embarked and disembarked), EU-27, 2009
(million passengers)

■ **International**
■ **National**
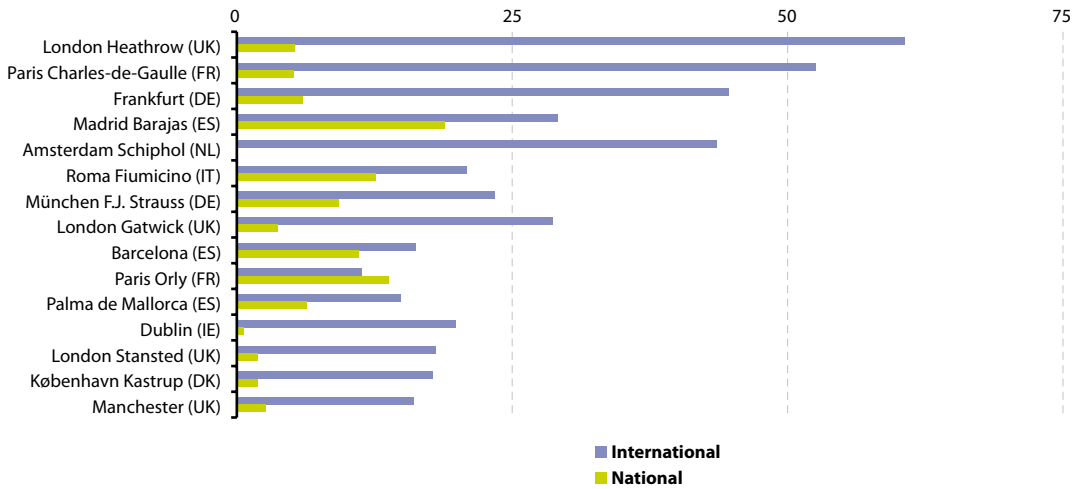
Source: Eurostat (avia_paoa)

Table 10.5: Air and sea passenger transport (^{1})

	Air passengers, 2009 (^{2})		Maritime passengers, 2008 (^{3})	
	(1 000)	**(passengers per inhabitant)**	**(1 000)**	**(passengers per inhabitant)**
EU-27	751 401	*1.5*	412 877	*0.8*
Belgium	21 314	*2.0*	799	0.1
Bulgaria	5 839	0.8	0	0.0
Czech Republic	12 367	1.2	-	-
Denmark	20 860	3.8	43 561	7.9
Germany	158 150	1.9	28 945	0.4
Estonia	1 341	1.0	9 190	6.9
Ireland	26 277	*5.9*	3 108	*0.7*
Greece	32 882	2.9	91 101	8.1
Spain	148 318	3.2	22 478	0.5
France	117 557	1.8	26 813	0.4
Italy	102 167	1.7	90 156	1.5
Cyprus	6 730	8.4	150	0.2
Latvia	4 063	1.8	437	0.2
Lithuania	1 867	0.6	205	0.1
Luxembourg	1 535	3.1	-	-
Hungary	8 081	0.8	-	-
Malta	2 919	7.1	7 799	18.9
Netherlands	46 479	2.8	1 959	0.1
Austria	21 817	2.6	-	-
Poland	17 046	0.4	2 647	0.1
Portugal	24 104	*2.3*	762	0.1
Romania	7 984	0.4	0	0.0
Slovenia	1 423	0.7	50	0.0
Slovakia	1 948	0.4	-	-
Finland	13 829	2.6	17 226	3.2
Sweden	25 219	2.7	32 745	3.6
United Kingdom	198 532	*3.2*	29 555	*0.5*
Iceland	1 837	5.8	433	1.4
Norway	27 717	5.9	6 208	1.3
Switzerland	35 928	4.7	-	-
Croatia	4 335	1.0	26 037	5.9

(^{1}) For air: aggregates exclude the double-counting impact of passengers flying between countries belonging to the same aggregate. For maritime: figures refer to the number of passengers 'handled in ports' (i.e. the sum of passengers embarked and then disembarked in ports); if both the port of embarkation and disembarkation report data to Eurostat, then these passengers are counted twice.
(^{2}) Total passengers carried (arrivals and departures for national and international); Norway, 2008.
(^{3}) Bulgaria, Denmark, Lithuania, Malta, Romania, Finland and Croatia, 2009; Iceland, 2006.

Source: Eurostat (ttr00012, tps00001 and mar_pa_aa)

10.3 Freight transport

The ability to move goods safely, quickly and cost-efficiently to markets is important for international trade, national distributive trades, and economic development. This subchapter presents information on the freight transport sector in the European Union (EU), which includes the following transport modes: road, rail, air, maritime and inland waterways.

The rapid increase in global trade up to the onset of the financial and economic crisis and the deepening integration of the enlarged EU, alongside a range of economic practices (including the concentration of production in fewer sites to reap economies of scale, delocalisation, and just-in-time deliveries), may explain the relatively fast growth of freight transport within the EU. In contrast, strains on transport infrastructure (congestion and delays), coupled with constraints over technical standards, interoperability and governance issues may slow down developments within the freight transport sector.

Main statistical findings

Total inland freight transport in the EU-27 was estimated to be close to 2 400 000 million tonne-kilometres (tkm) in 2008; a little over three quarters (76.4 %) of this freight total was transported over roads in 2008 (see Table 10.6). The relative importance of road freight transport, as a share of total inland freight transport, rose by 2.7 percentage points between 2000 and 2008. The volume of inland freight

transported by road was a little over four times as high as the volume transported by rail (17.8 % of inland freight transported in the EU-27 in 2008), while the remainder (5.9 %) of the freight transported in the EU-27 was carried along inland waterways. It should be noted that this analysis refers only to inland freight transport and that considerable volumes of freight may be transported by maritime freight services and for some product groups by air transport or by pipelines.

The relative ascendancy of road freight transport was common in most of the Member States, with the exception of the Baltic Member States, Austria and Sweden, where at least one third of the inland freight transported took place on the railways in 2008; in Latvia, a majority of inland freight was transported by rail (61.3 %). Between 10 % and 16 % of total inland freight was transported on the inland waterways of Belgium, Bulgaria, Germany and Romania in 2008; this share rose to over one third (34.7 %) of the total in the Netherlands.

The volume of EU-27 inland freight transport grew at a faster pace than constant price GDP during the period from 2000 to 2008 (overall 4.0 % higher) – see Table 10.7. Slovenia and Romania recorded the fastest growth in inland freight transport relative to GDP growth (50 % higher), while the volume of inland freight transport grew by at least 20 % more than GDP in Portugal, Hungary, Spain, Poland and Bulgaria. In contrast, there was lower freight transport growth

than GDP growth in Estonia, Belgium and Denmark, as GDP grew at least 25 % faster.

Road freight

Relative to the size of their respective populations, the greatest volume of road freight transport was reported for Luxembourg, over 17 000 tonne-kilometres per inhabitant, almost two and a half times the next highest volume in Slovenia; in both cases, the vast majority of this road freight transportation was international, performed by vehicles registered in each of these Member States. Indeed, it is important to note that road freight statistics are generally based on movements in the registration country or abroad, of vehicles registered in the reporting country ('nationality principle').

Slightly more than two thirds of the goods transported on the EU-27's roads in 2009 related to the transportation of goods on national road networks (see Figure 10.5). However, this proportion varied considerably between the Member States: with the highest proportion of national road freight transport in the islands of Cyprus (98.1 %) and the United Kingdom (93.6 % in 2007), while the relative importance of national freight was much lower in Slovakia (19.9 %), Slovenia (15.4 %), Lithuania (14.8 %) and Luxembourg (6.3 %). For most freight hauliers registered in the EU, international road freight transport mostly relates to exchanges with other EU Member States (intra-EU partners).

Air freight

About 12.3 million tonnes of air freight (both national and international) was carried through airports within the EU-27 in 2009 (see Figure 10.6). Airports in Germany dealt with 3.3 million tonnes of air freight, considerably more than in any other EU Member State – the United Kingdom had the second highest amount of air freight at 2.2 million tonnes. Some of the smaller Member States are relatively specialised in air freight, notably all of the Benelux countries, and in particular, Luxembourg (which ranked as the seventh largest air freight transporter among the EU Member States).

Maritime freight

Maritime ports in the EU-27 handled 3 919 million tonnes of seaborne goods in 2008, which marked a modest reduction of 0.4 % when compared with 2007. Sea ports in the United Kingdom handled 562 million tonnes of goods in 2008, more than any other Member State and equivalent to 14.3 % of the EU-27 total. Among the smaller Member States, the quantity of goods handled in maritime ports of the Netherlands, Belgium and the Nordic Member States was particularly high (see Figure 10.7).

Data sources and availability

The development of freight transport statistics is based upon a raft of framework legislation and implementing legislation, generally broken down according to the mode of transport under consideration.

Information on inland freight transport is available with an annual frequency and the time series generally begin in the early 1990s. The majority of inland

freight transport statistics are based on movements in each reporting country, regardless of the nationality of the vehicle or vessel involved (the 'territoriality principle'). For this reason, the volume measure of tonne-kilometres is generally considered as a more reliable measure, as the use of tonnes entails a higher risk of double-counting, particularly for international transport. The methodology used across the EU Member States is not completely harmonised, for example, road freight statistics are generally based on all movements (in the registration country or abroad) of vehicles registered in the reporting country (the 'nationality principle'). Therefore, the statistics presented, especially those for the smallest reporting countries, may be somewhat unrepresentative.

The modal split of inland freight transport is based on transportation by road, rail and inland waterways, and therefore excludes air, maritime and pipeline transport. It measures the share of each transport mode in total inland freight transport and is based on the volume of goods transported in tonne-kilometres, in other words, one tonne of goods travelling a distance of one kilometre.

The volume of inland freight transport may also be expressed in relation to gross domestic product (GDP); within this subchapter the indicator is presented in constant prices for the reference year 2000, providing information on the relationship between the demand for freight transport and economic growth, with the series indexed on 2000=100, so that the annual intensity of freight transport demand can be monitored relative to economic developments.

Goods loaded are those goods placed on a road vehicle, a railway vehicle or a merchant ship for dispatch by road, rail or sea. The weight of goods transported by rail and inland waterways is the gross-gross weight. This includes the total weight of the goods, all packaging, and the tare-weight of the container, swap-body and pallets containing goods; in the case of rail freight transport, it also includes road goods vehicles that are carried by rail. In contrast, the weight measured for maritime and road freight transport is the gross weight (in other words, excluding the tare-weight).

Road freight

Road freight transport statistics are collected under the framework provided by Regulation 1172/98 on statistical returns in respect of the carriage of goods by road, amended by Regulation 399/2009 which details implementing powers conferred on the European Commission. The data are based on sample surveys carried out in the reporting countries and record the transport of goods by road, as undertaken by vehicles registered in each of the Member States. It is important to note that almost all of the Member States apply a cut-off point for carrying capacity under which vehicles are not surveyed; this should not be greater than 3.5 tonnes carrying capacity, or 6 tonnes in terms of gross vehicle weight; some of the Member States also apply a limit on the age of the vehicles surveyed.

Rail freight

Rail freight data are collected under the framework provided by Regulation

91/2003 on rail transport statistics. The data are collected for a quarterly frequency (usually limited to larger enterprises) and for an annual frequency (which covers enterprises of all sizes). Rail freight data are not available for Malta and Cyprus (or Iceland) as they do not have a railway infrastructure. Rail statistics are also collected every five years in relation to a regional breakdown (NUTS 2 level).

Aside from the mandatory collection of data based on legal acts, Eurostat also collects rail transport statistics through a voluntary data collection exercise. The questionnaire used for this exercise provides information in relation to railway transport infrastructures, equipment, enterprises, traffic and train movements.

Maritime freight

The legal framework for the collection of statistics on maritime freight transport is Directive 2009/42/EC on statistical returns in respect of carriage of goods and passengers by sea (Recast). Maritime transport data are available for most of the period from 2001 onwards, although some EU Member States have provided data since 1997. Maritime freight statistics are not transmitted to Eurostat by the Czech Republic, Luxembourg, Hungary, Austria and Slovakia as they have no maritime ports.

Inland waterways freight

The legal framework for the collection of statistics on inland waterway freight transport is Regulation 1365/2006 on statistics of goods transport by inland waterways. Data on inland waterways are only required for those Member States with an annual quantity of goods transported that exceeds one million tonnes, namely Belgium, Bulgaria, the Czech Republic, Germany, France, Luxembourg, Hungary, the Netherlands, Austria, Poland, Romania, Slovakia and the United Kingdom; Croatia also provides data. Data collection is based on an exhaustive survey of all inland waterway undertakings for all goods that are loaded or unloaded. In the case of transit, some countries make use of sampling methods in order to estimate the quantity of goods.

Air freight

The legal framework for air transport statistics is provided by Regulation 437/2003 on statistical returns in respect of the carriage of passengers, freight and mail by air. Air freight statistics are collected for freight and mail loaded and unloaded in relation to commercial air flights. The information is broken down to cover national and international freight transport, with the latter being split between intra-EU and extra-EU partners.

Air transport statistics are collected at the airport level by the EU Member States, Norway, Iceland, Switzerland and the candidate countries. Annual data are available for most of the EU Member States for the period from 2003 onwards, while some countries have provided data back to 1993. The statistics that are collected are also available for a monthly and a quarterly frequency. Air freight statistics are also collected for a regional breakdown (NUTS 2 level).

More detailed definitions of the statistical terms used within transport statistics are available in the Illustrated Glossary for Transport Statistics - 4th edition, 2010.

Context

One of the main challenges identified by the 2001 White paper, titled 'European transport policy for 2010: time to decide' (COM(2001) 370) was to address the imbalance in the development of different transport modes. Specific actions looking to boost rail and maritime connections were foreseen, including the establishment of the Marco Polo programme which aims to free Europe's roads through the promotion of alternative forms of freight transport that may be greener, cleaner and (in the long-run) cheaper. Part of the Marco Polo programme concentrates on making better use of existing infrastructures, by encouraging the integration of short-sea shipping, rail transport and inland waterways into the logistics chain, through the recognition that each transport mode has its own advantages either in terms of potential capacity, levels of safety, flexibility, energy consumption, or environmental impact.

A mid-term review of the White paper, titled 'Keep Europe moving – sustainable mobility for our continent' (COM(2006) 314) made a number of suggestions for new policy developments, which have been subsequently expanded upon in the form of a series of European Commission Communications and internal working documents, these include:

- The EU's freight transport agenda: boosting the efficiency, integration and sustainability of freight transport in Europe (COM(2007) 606), which proposed a series of measures to: promote freight transport logistics; make rail freight more competitive; create a framework to allow European ports to attract investment for their modernisation; put maritime freight transport on an equal footing with other transport modes, and; review progress made in developing so-called 'motorways of the sea'.

- A freight transport logistics action plan (COM(2007) 607), which covered, among others, e-freight and intelligent transport systems, the promotion of interoperability across transport modes, single transport documents, and the removal of regulatory obstacles.

- A move towards a rail network giving priority to freight COM(2007) 608), which proposed improvements to the infrastructure of existing freight corridors, measures to improve service quality, the introduction of harmonised rules for the allocation of train paths, and the improvement of terminal and marshalling yard capacities.

- A European ports policy (COM (2007) 616) including proposals for modernisation with respect to the simplification of procedures for short-sea shipping, an e-maritime approach to administration and improved port equipment, and the expansion of capacity whilst respecting the environment.

- A document reporting on the motorways of the sea (SEC(2007) 1367) which discussed the progress made in relation to trans-European networks and the Marco Polo programme, as

well as opportunities to reduce bureaucracy, improve promotion and marketing, ensure the availability of suitable vessels, provide adequate training, ensure the availability of connections, and establish integrated information systems.

- A 'Greening transport' package (COM(2008) 433) which included a three-pronged strategy that sought to: ensure that the price of transport better reflects its real cost to society in terms of environmental damage and congestion; develop more efficient and greener road tolls for lorries, and; reduce noise pollution from rail freight.
- A set of strategic goals and recommendations for the EU's maritime transport policy until 2018 (COM(2009) 8) presented the main strategic objectives for the EU's maritime transport system, including the ability of the maritime transport sector to provide cost-efficient maritime transport services adapted to the needs of sustainable economic growth, and the long-term competitiveness of the EU's shipping sector.
- A European maritime transport space without barriers (COM(2009) 10) which presented ideas designed to help boost short-sea services, through a reduction in administrative formalities, in particular the removal of customs formalities that do not apply to similar road transport services.

Table 10.6: Modal split of inland freight transport ([1])
(% of total inland tkm)

	2000			2008		
	Roads	**Railways**	**Inland waterways**	**Roads**	**Railways**	**Inland waterways**
EU-27	*73.7*	*19.7*	*6.6*	*76.4*	*17.8*	*5.9*
Belgium	77.4	11.6	10.9	69.1	15.1	15.8
Bulgaria	52.3	45.2	2.6	66.9	20.5	12.6
Czech Republic	68.0	31.9	0.2	76.7	23.3	:
Denmark	92.1	7.9	-	91.3	8.7	:
Germany	65.3	19.2	15.5	65.5	22.2	12.3
Estonia	37.3	62.7	0.0	55.3	44.7	:
Ireland	96.2	3.8	-	99.4	0.6	:
Greece	:	:	-	97.3	2.7	:
Spain	92.8	7.2	-	95.9	4.1	:
France	76.0	20.6	3.4	80.6	15.9	3.5
Italy	89.0	11.0	0.1	*88.3*	*11.7*	:
Cyprus	100.0	-	-	100.0	-	:
Latvia	26.5	73.5	0.0	38.7	61.3	0.0
Lithuania	46.6	53.4	0.0	58.0	41.9	0.1
Luxembourg	87.8	7.9	4.4	94.2	2.5	3.3
Hungary	68.1	28.8	3.1	74.7	20.6	4.7
Malta	100.0	-	-	100.0	-	:
Netherlands	63.4	3.7	32.9	59.9	5.4	34.7
Austria ([2])	64.8	30.6	4.5	58.6	37.4	4.0
Poland	56.9	42.2	0.9	75.9	24.0	0.1
Portugal	92.5	7.5	-	93.9	6.1	:
Romania	42.9	49.1	7.9	70.2	19.0	10.8
Slovenia	*71.9*	*28.1*	-	82.2	17.8	:
Slovakia	53.0	41.7	5.3	73.8	23.4	2.8
Finland	75.8	24.0	0.3	73.3	26.5	0.2
Sweden	63.9	36.1	-	64.7	35.3	:
United Kingdom	90.0	9.8	0.1	*88.5*	*11.5*	:
Iceland	100.0	-	-	100.0	-	:
Norway	83.5	16.5	-	85.0	15.0	:
Croatia	:	:	:	72.7	21.8	5.5
FYR of Macedonia	86.9	13.1	-	:	:	:
Turkey	94.3	5.7	-	:	:	:

([1]) Excluding pipelines.
([2]) The railway in Liechtenstein is owned and operated by the Austrian ÖBB and included in their statistics.

Source: Eurostat (tsdtr220)

Table 10.7: Volume of inland freight transport (¹)
(index of inland freight transport volume relative to GDP, 2000=100)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EU-27	*101.1*	*100.1*	100.0	*99.0*	*100.2*	*99.3*	*105.4*	*105.4*	*106.0*	*106.5*	*104.0*
Belgium	89.1	80.2	100.0	102.2	101.3	97.3	91.3	84.9	*82.5*	*80.0*	*72.8*
Bulgaria	63.6	49.9	100.0	104.8	105.0	109.9	119.7	128.0	118.3	116.6	120.7
Czech Republic	100.9	101.5	100.0	99.6	103.9	105.2	98.6	88.5	94.0	86.2	86.6
Denmark	95.6	100.1	100.0	91.9	92.7	94.4	93.9	91.1	80.7	77.9	73.8
Germany	97.0	100.4	100.0	99.9	98.9	100.0	104.5	106.1	109.7	111.7	110.0
Estonia	76.6	91.7	100.0	89.5	92.7	84.6	90.1	87.0	76.7	66.5	61.8
Ireland	82.2	92.0	100.0	95.1	102.3	107.0	111.8	109.3	100.6	102.9	97.0
Greece	:	:	100.0	:	:	:	:	:	:	:	:
Spain	*93.6*	95.5	100.0	104.0	114.9	116.1	*128.1*	130.1	129.4	133.1	123.9
France	100.2	103.0	100.0	96.9	94.9	92.4	92.7	87.2	87.6	88.7	83.4
Italy	*105.1*	99.4	100.0	98.8	100.4	91.6	101.7	108.2	*95.5*	*91.2*	*92.0*
Cyprus	*104.7*	*101.6*	100.0	99.3	101.2	105.2	80.6	96.6	77.6	76.1	80.0
Latvia	104.3	96.7	100.0	99.9	101.9	111.0	107.2	105.0	91.6	95.2	101.0
Lithuania	85.0	96.5	100.0	89.9	107.6	109.2	106.2	116.8	118.5	120.5	119.0
Luxembourg	*80.9*	91.6	100.0	109.2	109.4	111.6	107.1	92.2	88.2	87.7	96.1
Hungary	110.4	101.9	100.0	93.9	89.5	85.8	93.6	105.1	118.4	132.4	131.1
Malta	:	:	100.0	:	:	:	:	:	:	:	:
Netherlands	106.7	106.9	100.0	97.4	97.8	96.2	105.6	98.7	95.2	91.4	89.1
Austria	93.4	98.1	100.0	104.7	105.7	105.2	104.3	98.5	102.2	97.7	91.4
Poland	112.0	103.0	100.0	97.6	98.4	98.4	108.2	108.9	115.2	121.6	122.5
Portugal	101.7	101.2	100.0	108.4	107.0	99.7	143.5	148.6	153.8	155.9	133.0
Romania	:	95.2	100.0	106.3	119.6	127.1	145.1	174.2	171.4	165.6	148.5
Slovenia	*106.5*	*102.4*	100.0	101.3	95.5	98.8	114.5	128.7	132.0	138.4	152.5
Slovakia	116.3	112.9	100.0	92.3	87.0	88.1	88.2	93.7	86.9	92.0	90.9
Finland	98.9	98.7	100.0	93.7	95.0	91.6	91.1	86.7	81.4	76.7	76.4
Sweden	*102.9*	*98.0*	100.0	95.4	96.9	96.7	94.4	95.3	94.4	94.4	97.1
United Kingdom	110.8	104.3	100.0	97.0	95.1	94.1	*93.6*	*91.3*	*93.3*	*90.2*	*87.0*
Iceland	102.1	103.8	100.0	*105.5*	*108.3*	*108.8*	*109.6*	*113.1*	*119.2*	:	:
Norway	102.6	101.5	100.0	97.8	96.6	101.4	103.1	105.9	109.9	107.6	111.9
FYR of Macedonia	:	:	100.0	93.5	*111.8*	146.1	139.0	141.5	198.5	141.2	:
Turkey	96.7	99.2	100.0	98.4	92.2	89.1	84.2	82.2	81.7	79.8	:

(¹) Excluding pipelines; breaks in series: Bulgaria, Hungary and Slovakia, 2000; Bulgaria, 2001; EU-27, Portugal and Romania, 2004.

Source: Eurostat (tsien060)

Table 10.8: Inland freight transport, 2009

	(million tkm)			(tkm per inhabitant)			National air freight and mail transport (tonnes) (⁴)
	Road (¹)	Rail (²)	Inland water-ways (³)	Road (¹)	Rail (²)	Inland water-ways (³)	
EU-27	:	442 738	144 953	:	*889.6*	*291.3*	591 286
Belgium	36 174	8 572	8 746	*3 365.0*	803.6	819.9	326
Bulgaria	17 742	4 693	5 436	2 332.5	614.2	714.6	26
Czech Republic	44 955	15 437	33	4 294.7	1 487.0	3.2	2 157
Denmark	16 876	1 866	-	3 065.3	340.8	-	1 975
Germany	307 547	115 652	55 652	3 750.5	1 406.7	678.7	119 942
Estonia	5 340	5 943	:	3 983.8	4 432.0	:	0
Ireland	12 668	103	-	*2 846.7*	23.4	-	9 267
Greece	28 850	786	-	2 572.7	70.1	-	12 670
Spain	211 895	10 475	-	4 623.7	231.3	-	81 290
France	173 621	40 627	8 673	2 697.4	634.8	134.7	136 255
Italy	179 411	23 831	:	3 034.1	399.7	:	54 895
Cyprus	963	-	-	1 208.5	-	-	178
Latvia	8 115	19 581	:	3 588.7	8 622.6	:	0
Lithuania	17 757	14 748	:	5 300.8	4 381.0	:	0
Luxembourg	8 400	279	279	17 021.3	576.7	565.3	0
Hungary	35 373	9 874	1 831	3 526.4	982.9	182.5	0
Malta	:	-	-	:	-	-	0
Netherlands	71 566	6 984	35 656	4 341.1	425.7	2 162.8	2
Austria	29 075	21 915	2 003	3 479.8	2 634.5	239.7	782
Poland	180 742	52 043	202	4 739.4	1 365.4	5.3	6 859
Portugal	35 808	2 549	-	*3 369.5*	240.1	-	20 049
Romania	34 269	15 236	11 765	1 594.0	707.7	547.2	217
Slovenia	14 762	3 520	:	7 263.5	1 751.0	:	0
Slovakia	27 705	9 299	899	5 118.9	1 721.7	166.1	1
Finland	27 805	10 777	:	5 220.3	2 033.2	:	3 921
Sweden	35 047	23 116	-	3 786.3	2 517.3	-	15 732
United Kingdom	171 477	24 831	:	2 821.2	405.9	:	124 741
Liechtenstein	263	17	:	7 389.9	480.8	:	:
Norway	18 447	3 621	-	3 843.7	764.4	-	17 095
Switzerland	11 882	12 265	:	1 542.7	1 615.2	:	4 092
Croatia	9 426	3 312	727	2 125.3	746.6	163.9	1 163
Turkey	:	10 552	-	:	149.5	-	:

(¹) Greece, 2008; Italy and the United Kingdom, 2007; road transport is based on movements all over the world of vehicles registered in the reporting country.
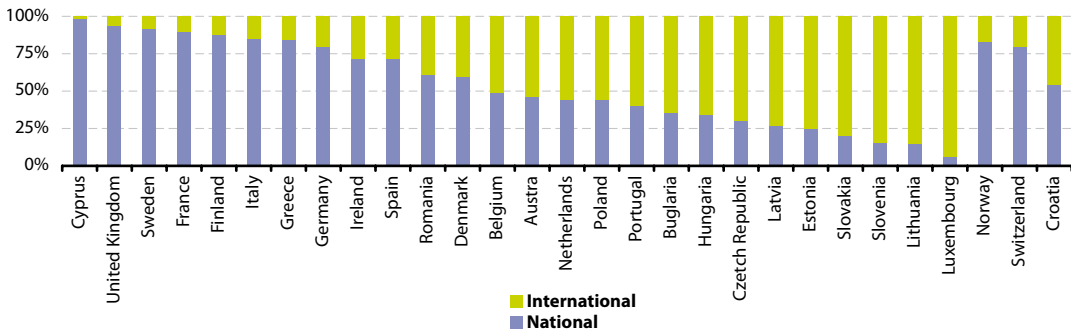(²) 2008.
(³) EU-27 and Belgium, 2008.
(⁴) Data based on departures; France underestimated as freight transport at Paris Charles-de-Gaulle and Paris Orly is incomplete.

Source: Eurostat (road_go_ta_tott, rail_go_typeall, ttr00007, tps00001 and avia_gooc) and Directorate-General for Mobility and Transport

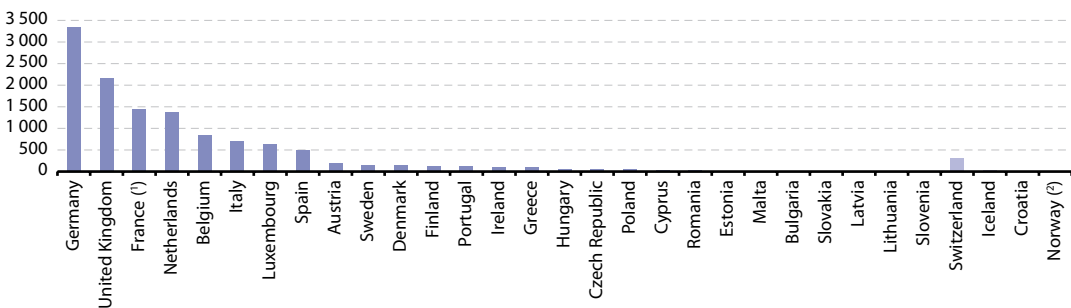**Figure 10.5:** National and international road transport of goods, 2009 (¹)
(% based on million tkm of laden transport)

- ■ International
- ■ National

(¹) Greece, 2008; Italy and the United Kingdom, 2007; Malta, not available.

Source: Eurostat (road_go_ta_tott)

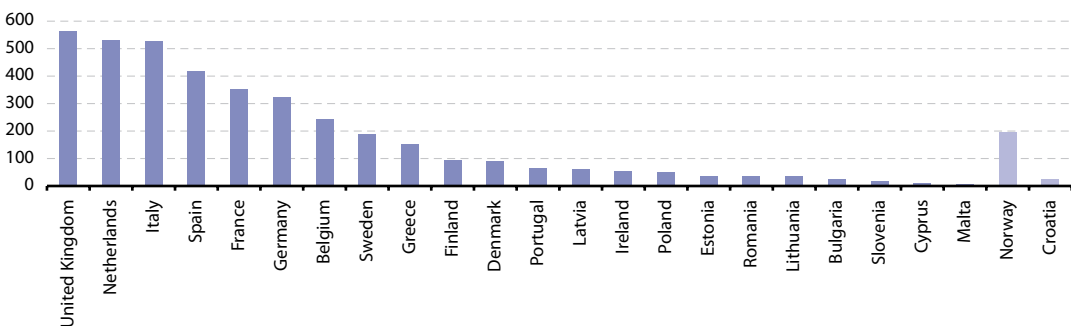**Figure 10.6:** Air freight transport, 2009
(1 000 tonnes)

(¹) Underestimated: freight transport at Paris Charles-de-Gaulle and Paris Orly is incomplete.
(²) 2008.

Source: Eurostat (ttr00011)

Figure 10.7: Gross weight of seaborne goods handled in ports, 2008 (¹)
(million tonnes)

(¹) Bulgaria, Denmark, Lithuania, Malta, Romania, Finland and Croatia, 2009; the Czech Republic, Luxembourg, Hungary, Austria and Slovakia, not applicable.

Source: Eurostat (mar_go_aa)