Main Figures on

Road Safety Data

Spain 2012

EXECUTIVE SUMMARY

Most of the traffic accidents that take place each year in our country involve material damage only, leading to significant economic losses. However, given their importance for public health, it is essential to know the number of accidents involving any casualty, the characteristics concerning the severity of injuries and the factors contributing to the accident.

In 2012 the different traffic police forces reported 83,115 ***casualty accidents.*** According to police reports, these accidents resulted in 1,903 fatalities at the time of the accident or within 30 days of its occurrence, 10,444 casualties were admitted to hospital and 105,446 people were slightly injured. The figures on fatalities and hospital admissions, although being high, show a reduction in comparison with the previous year, whereas the number of road accidents has remained stable and the number of those slightly injured has increased.

The vehicle fleet, of which passenger cars account for 67 per cent, has grown by almost 6 million over the past decade for all vehicle categories. In 2012, however, we observe for the first time in the last ten years a decrease in the total vehicle fleet when compared to the previous year. The average age of the fleet —considering only vehicles less than 25 years old— ranges from 8.3 years for industrial tractors to 10.7 for trucks and vans, with the average age of cars being 9.5 years. Half of the cars are ten years old or older.

The driver census increased by 1 per cent in 2012 in comparison with the previous year, registering 672 licensed drivers per 1,000 inhabitants of legal driving age. An ageing of the driver population has been seen in the last few years, with drivers who have held a driving licence for less than five years going from 24 per cent in 2008 to 19 per cent in 2012.

As regards ***road accident fatalities***, it is worth stressing that 76 per cent were males, 51 per cent were 45 years old or older, 46 per cent were involved in an accident as car occupants and 76 per cent had an accident on interurban roads, of which 79 per cent of fatal accidents occurred on secondary roads. 61 per cent of the fatalities were drivers and 20 per cent were pedestrians. 65 per cent of the accidents in which at least one person was killed occurred on working days, and 63 per cent of these accidents occurred between 8am and 8pm. 35 per cent of the fatalities occurred in accidents involving a single vehicle leaving the carriageway. In 2012, fatalities in accidents occurred in Spain were evenly distributed over days, weeks and months. The number of fatalities works out at an average of 5.2 a day, in particular 3.9 fatalities on interurban roads and 1.2 fatalities on urban roads.

There was an 8 per cent fall in the total number of fatalities in 2012 in comparison with the previous year. Fatalities decreased for most of the different types of vehicles, with the exception of cyclist fatalities, which increased by 47 per cent. There is also an increased number of fatalities on motorways and on urban roads. With regard to age, there is an increase in the number of fatalities aged 0 to 14 and over 75.

As for the ***location of the accident***, the number of fatalities fell for most Autonomous Communities, except for Aragon and the Principality of Asturias, where figures remained the same, and for the Balearic Islands, the Canary Islands, Catalonia and the Chartered Community of Navarre, where an increase was noted. Fatalities on urban roads increased in comparison with 2011, with 4 more fatalities occurring in 2012. As for the size of the municipality, it is found that 24 per cent of the fatalities occur in municipalities with a population between 100,001 and 500,000 inhabitants, and 22 per cent in municipalities with over 1,000,000 inhabitants.

There has also been reductions in the number of fatalities for most times, days and months of the year, with the exception of the increases observed in March, June and September.

This progress in fatality reduction is parallel to the one being achieved in the rest of the European Union countries. In 2012, Spain ranked seventh in terms of road fatality rate, with a value of 41 fatalities per million population, below the European rate, which was 55 fatalities per million population.

With regard to ***seriously injured casualties*** reported by traffic police forces, it should be noted that 70 per cent were males, 59 per cent were aged under 45, 37 per cent were involved in an accident as car occupants, 31 per cent as motorcycle or moped users and 18 per cent as pedestrians. 58 per cent had an accident on interurban roads and, in particular, 81 per cent of these accidents occurred on secondary roads. 42 per cent of the seriously injured casualties occurred on urban roads. 68 per cent of the accidents with seriously injured casualties occurred on working days, and 71 per cent of these accidents occurred between 8am and 8pm.

In 2012 the total number of seriously injured casualties fell by 8 per cent in comparison with the previous year. All age groups have seen such reduction, except for the 65-74 age group, with a 5 per cent increase, and the 85 and over age group, with a 2 per cent increase.

More than half of the ***slightly injured casualties*** occurred on urban roads. They have increased by 1 per cent in comparison with the previous year.

Children, elderly people and cyclists are the ***most vulnerable road user groups***. In 2012, 52 ***children*** aged between 0 and 14 years were killed in road traffic accidents. Of these, 40 were passengers, 11 were pedestrians and 1 was a driver, an increase compared with the previous year. On interurban roads most fatalities were passengers, 36 in total, while 9 of the fatalities on urban roads were pedestrians. Out of the 40 fatally injured passengers, no evidence of the use of any restraint system was found in 11 cases on interurban roads, and in 4 cases on urban roads. 373 children were seriously injured and 60% of these casualties occurred on urban roads.

The fatality road accident rate for ***elderly people***, and especially those aged over 74, has increased. 507 people aged 64 were killed, accounting for 27 per cent of all road fatalities. 54 per cent of the 376 pedestrian fatalities in 2012 were above 64 years of age, but those aged over 74 run the highest risk of being run over, accounting for 36 per cent of all pedestrian fatalities. 15 per cent of those seriously injured were above 64 years of age, 53 per cent of these injured casualties occurred on urban roads.

Cyclists were involved in 5,150 accidents, which resulted in 72 cyclists fatalities and 572 seriously injured cyclists. 72 per cent of the accidents occurred on urban roads, resulting in 4,362 slightly injured cyclists, accounting for 73 per cent of the total number of slightly injured casualties. The highest number of fatalities occurred on interurban roads, with 52 cyclist fatalities. In 2012, the population aged 65-74 was the age group with the highest number of cyclist deaths, followed by the age group 35-44, although the latter is the age group with less seriously and slightly injured people.

Accidents happening at ***black spots*** amounts to 8 per cent of the total and is thus essential to locate them in order to analyse the causes and to implement possible solutions. The number of fatalities at this spots has increased from 27 in 2011 to 44 in 2012.

As regards the analysis of ***risk factors***, it is worth stressing that inappropriate ***speed*** was present in 11 per cent of casualty accidents, and that this percentage is as high as 18 per cent when the the casualty accident occurs on an interurban road. In the specific case of fatality accidents, this factor was present in 23 percent of the accidents.

The measurement campaigns of free flow speed conducted in 2012 show that the percentage of light vehicles exceeding the speed limit ranges between 22.6 per cent, on dual carriageways at night, and 47.5 per cent, on rural roads with a speed limit of 90 km/h, at night also.

To drive after having consumed ***psychoactive substances*** is particularly frequent in Spain, reaching 17 per cent of the Spanish drivers. Apart from alcohol, almost 11 per cent of drivers do so after having consumed some substance (abuse drugs) that may affect their ability to safely drive a motor vehicle. Cannabis (THC) and cocaine are the two mostly detected substances. The consumption of two or more substances at the same time, a proven behaviour of extreme risk to road safety, is comparatively frequent in Spain, at around 2 per cent of the drivers chosen at random.

Distraction appears as a concurrent factor in 39 per cent of casualty accidents, being this ratio 45 per cent on interurban roads and 34 per cent on urban roads. One of the reasons for distraction is the use of the mobile telephone when driving. In 2012, the Traffic Division of the Guardia Civil made 121,668 complaints for the use of the mobile telephone, which represented 11 per cent less than the previous year.

In 2012, in one out of two accidents on interurban roads, the involved drivers had committed a traffic ***infringement***. When the accident occurred on an urban road, there was an infringement in two out of three accidents.

24 percent of car users killed on interurban roads failed to wear the ***seatbelt***; this percentage increased to 32 per cent on urban roads. 5 per cent of motorcycle users killed on interurban roads did not wear the ***crash helmet***, and this percentage triples on urban roads, reaching 15 per cent. As for the crash helmet and mopeds, 13 fatalities failed to wear the crash helmet on interurban roads, out of 42 fatalities in this type of road, whereas on urban roads 3 out of 24 fatalities did not wear the helmet.

The ***age of the vehicle*** increases the severity of a road traffic accident. The risk of being killed or seriously injured multiplies by two when comparing the accidents involving vehicles more than 15-19 years old with vehicles less than five years old. The rate of fatalities and seriously injured people shows a positive correlation with the age of the vehicle. The age of the vehicle is a concurrent factor that increases the risk of being killed or seriously injured after having an accident, since it is closely related to the level of vehicle safety, and thus to the end result in terms of human lives lost and disabled people.

The information provided by police traffic forces has to be supplemented by ***health system sources,*** because they include hospitalized people who were injured in traffic accidents but were not reported by police traffic forces, as well as data on the injuries of road traffic casualties.

The different sources of information reflect differences in the ***ratio between fatalities and injured people.*** In 2012, according to police sources, for every fatality there were 5 seriously injured people and 55 slightly injured people, being the seriously injured person the individual who required hospitalization for more than 24 hours. In addition, the consultation of the latest available data on health information —2011— shows that for every traffic fatality there were at least 12 people who required hospitalization and 276 who required out-patient care or being attended at emergency services. The direct and indirect costs related to these accidents and their outcome —people being killed or injured— are estimated around 1% of the Spanish Gross Domestic Product for 2011 (latest available data).

The most frequent ***injuries*** of the casualties who needed hospitalization and eventually died were: fractures, in 50% of the cases, and internal damage, in 39%; the most affected body parts were the head and neck, in 43% of the cases, and the chest, in 36%. As regards the rest of hospitalized casualties, 58% had fractures, 17% internal damage, 8% contusions and 7% injuries. In relation to the location, the upper and lower limbs were the most prevalent injured body part.

The new agreement of the European Union to homogenize the definition of seriously injured person substantially changes the figures of seriously injured people, since if focuses on the group of hospitalized injury patients whose injuries are particularly serious ***(MAIS 3+).*** In 2012, the number of seriously injured people according to the new definition, MAIS 3+, was 6,044. By age, people over 85 have suffered from more serious injuries —46 per cent showed MAIS 3+—, followed by people aged 75-84 years —with 37 per cent— and people aged 65-74 years —with 33 per cent—. By sex, 26 per cent of females and 28 per cent of males showed MAIS 3+. The use of MAIS 3+ enjoys a broad international consensus in achieving a common definition for seriously injured person ensuring the comparison among countries, being Spain one of the leading countries in obtaining data using this definition.

PROGRESS OF THE INDICATORS OF ROAD SAFETY STRATEGY 2011-2020

The willingness to improve road safety in Spain has been articulated in the "Road Safety Strategy 2011-2020" approved by the Council of Ministers on 25 February 2011; the strategy includes the realization of 13 challenges. The following chart shows the corresponding indicators —at present under revision— with their value in the base year: 2009; in the final year: 2020; in the reference year of this publication: 2012; and in the previous year: 2011.

Chart 1.- Indicators of Road Safety Strategy 2011-2020. Years 2009, 2011, 2012, 2020.

Indicators/Targets	Baseline figure 2009	Figure 2011	Figure 2012	Figure objective 2020
1. To reduce fatality rate to 37 per million population	59	45	41	Less than 37
2. Reduction in the number of seriously injured by 35 per cent	13,923	11,347	10,444	9,050
3. Zero child deaths without child restraint system [1]	12	5	9	0
4. 25% less of drivers aged 18-24 being killed or seriously injured at weekends	730	598	406	548
5. 10% less of drivers being killed aged 64 or over	203	179	202	183
6. 30% reduction in pedestrian fatalities	459	367	355	321
7. 1 million more cyclists but no increase in their fatality rate	1.2	1.1	1.6	1.2
8. Zero car fatalities in urban areas	101	75	71	0
9. Reduction in the number of motorcycle fatalities and serious injuries by 20%	3,473	2,966	2,760	2,778
10. 30% less fatalities on rural roads related to single vehicles leaving the carriageway	520	357	369	364
11. 30% less fatalities in itinere	170	128		119
12. Reduction of 1% in the number of positive alcohol breath tests at preventive random controls. (DRUID project, cut off point 0.05 mg/l)	6.7%	Not available. Regular study	Not available. Regular study	Less than 1%
13. Reduction of 50% in the percentage of light vehicles exceeding the speed limit by more than 20 km/h	12.3% (motorways) 6.9% (dual carr.) 15.8% (conv.90) 16.4% (conv.100)	12.8% (motorways) 7.0% (dual carr.) 21.2% (conv.90) 15.5% (conv.100) (2010 Figures)	8.0% (motorways) 4.3% (dual carr.) 14.0% (conv.90) 10.8% (conv.100)	6.2% (motorways) 3.5% (dual carr.) 7.9% (conv.90) 8.2% (conv. 100)

[1] Children under the age of 12

CASUALTY ACCIDENTS IN 2012

In Spain, there has been an observable trend from 1989 to 2011 towards a sustainable and global reduction in the number of casualty accidents. In 2012 the trend has changed and there were 88 casualty accidents more than the previous year. However, the number of fatalities and seriously injured people has decreased by 8 per cent. As regards slightly injured people, there has been an increase of 1 per cent on the previous year (2011). There has been an increase in the number of fatalities on motorways, on urban roads and bicycle users; in terms of age, there has also been an increase in the number of child deaths (aged 0-14) and of people over 75 years.

Chart 2.- Number of casualty accidents, fatalities, seriously and slightly injured people in 2012 Percentage difference to the previous year.

	2012				Variation[1] 2012/2011			
	Casualty accident	Fatalities	Seriously injured	Slightly injured	Casualty accident	Fatalities	Seriously injured	Slightly injured
Total	83,115	1,903	10,444	105,446	0%	-8%	-8%	1%
Location								
Interurban	35,425	1,442	6,044	47,936	-1%	-10%	-11%	1%
Motorways	2,221	67	261	3,353	-13%	2	-1%	-12%
Dual carriageway	6,506	231	863	9,524	-5%	-15%	-14%	-5%
Rural road	26,698	1,144	4,920	35,059	1%	-10%	-11%	3%
Urban	47,690	461	4,400	57,510	1%	1%	-3%	2%
Cross-town link	523	37	113	579	-12%	1	-11%	-14%
Streets	47,167	424	4,287	56,931	1%	1%	-2%	2%
Days of the week								
Working days	62,535	1,248	7,157	77,867	1%	-7%	-6%	2%
Weekend	20,580	655	3,287	27,579	-2%	-8%	-13%	-1%
Light conditions								
Daylight	59,515	1,153	7,098	74,533	1%	-6%	-7%	3%
Twilight	3,532	94	482	4,462	-4%	-15%	-13%	-3%
Night	20,068	656	2,864	26,451	-3%	-10%	-9%	-2%
Type of accident								
Frontal impact	2,938	250	925	4,488	8%	-26%	-12%	9%
Side and side-front impact	23,170	282	2,391	30,115	-2%	-14%	-11%	-1%
Rear-end and multi-vehicle collision	19,658	165	1,115	30,998	0%	-14%	-14%	1%
Leaving the carriageway	16,436	663	2,635	19,180	1%	3%	-11%	5%
Rollover	2,951	47	461	2,882	-2%	0	-6%	-2%
Running over a pedestrian [2]	10,028	355	1,840	9,183	-1%	-3%	-2%	-2%
Other type	7,934	141	1,077	8,600	2%	-2%	11%	1%
Means of transport								
Bicycle	5,150	72	572	4,362	14%	23	-3%	18%
Moped	7,483	66	771	7,065	-10%	-8	-20%	-11%
Motorcycle	18,168	302	2,458	16,288	-1%	-13%	-6%	0%
Car	66,599	872	3,921	61,256	1%	-11%	-10%	3%
Goods vehicle	11,231	147	538	5,271	-5%	-15%	-19%	-1%
Bus	1,726	3	43	1,337	-4%	0	-22	-18%
Pedestrians [2]	10,656	376	1,916	8,859	0%	-1%	0%	-1%
Age								
0-14	4,590	52	373	4,982	4%	10	-18%	8%
15-24	16,455	206	1,575	18,964	-4%	-22%	-15%	-2%
25-34	23,676	298	1,955	25,102	-3%	-11%	-15%	-2%
35-44	20,910	350	2,036	20,804	4%	-7%	-5%	6%
45-54	14,592	274	1,671	13,799	7%	-12%	0%	8%
55-64	8,611	200	1,043	8,102	5%	-13%	-5%	7%
65-74	4,953	196	775	4,485	8%	-2%	5%	9%
75-84	3,497	236	626	2,964	5%	12%	-2%	6%
85 and over	1,003	75	168	822	24%	1	2%	39%
Sex								
Male	58,462	1,440	7,372	62,747	-1%	-10%	-9%	1%
Female	36,369	458	3,018	41,737	2%	0%	-5%	2%

[1] The differences have been estimated in percentage terms when the number of cases is above 100 and in absolute terms when the number is below 100.

[2] The pedestrians being involved in accidents coded as 'running over a pedestrian' do not include all the pedestrians who were run over, because the classification by type of accident is made according to the first manoeuvre and not to the damaging consequences of them.

Although most casualty accidents happen on urban roads, the greatest number of fatalities and seriously injured people occur on rural roads. 75 per cent of the accidents happen on working days, which represents 66 per cent of all deaths on these days. 72 per cent of casualty accidents, 61 per cent of fatalities and 68 per cent of seriously injured people occur during daylight. As for the type of accident, although lateral, rear-end and multi-vehicle collisions account for more than half the accidents, single vehicles leaving the carriageway causes the highest percentage of deaths. Even though in 80 per cent of casualty accidents there is a car involved, car deaths represent 46 per cent of all deaths. Pedestrians are the most vulnerable road users: they are involved in 13 per cent of casualty accidents but this figure reaches 20 per cent of the total number of deaths. They are followed by motorcycles, involved in 22 per cent of accidents, with 16 per cent of motorcyclists being killed. 18 per cent of them were between 35 and 44 years of age. In 70 per cent of casualty accidents there was, at least, one male involved.

Chart 3.- Number of casualty accidents, fatalities, seriously and slightly injured people and their percentage distribution Year 2012

	2012				Percentage distribution 2012			
	Casualty accident	Fatalities	Seriously injured	Slightly injured	Casualty accident	Fatalities	Seriously injured	Slightly injured
Total	83,115	1,903	10,444	105,446	100%	100%	100%	100%
Location								
Interurban	35,425	1,442	6,044	47,936	43%	76%	58%	45%
Motorways	2,221	67	261	3,353	3%	4%	2%	3%
Dual carriageway	6,506	231	863	9,524	8%	12%	8%	9%
Rural road	26,698	1,144	4,920	35,059	32%	60%	47%	33%
Urban	47,690	461	4,400	57,510	57%	24%	42%	55%
Cross-town link	523	37	113	579	1%	2%	1%	1%
Streets	47,167	424	4,287	56,931	57%	22%	41%	54%
Days of the week								
Working days	62,535	1,248	7,157	77,867	75%	66%	69%	74%
Weekend	20,580	655	3,287	27,579	25%	34%	31%	26%
Light conditions								
Daylight	59,515	1,153	7,098	74,533	72%	61%	68%	71%
Twilight	3,532	94	482	4,462	4%	5%	5%	4%
Night	20,068	656	2,864	26,451	24%	34%	27%	25%
Type of accident								
Frontal impact	2,938	250	925	4,488	4%	13%	9%	4%
Side and side-front impact	23,170	282	2,391	30,115	28%	15%	23%	29%
Rear-end and multi-vehicle collision	19,658	165	1,115	30,998	24%	9%	11%	29%
Leaving the carriageway	16,436	663	2,635	19,180	20%	35%	25%	18%
Rollover	2,951	47	461	2,882	4%	2%	4%	3%
Running over a pedestrian [2]	10,028	355	1,840	9,183	12%	19%	18%	9%
Other type	7,934	141	1,077	8,600	10%	7%	10%	8%
Means of transport								
Bicycle	5,150	72	572	4,362	6%	4%	5%	4%
Moped	7,483	66	771	7,065	9%	3%	7%	7%
Motorcycle	18,168	302	2,458	16,288	22%	16%	24%	15%
Car	66,599	872	3,921	61,256	80%	46%	38%	58%
Goods vehicle	11,231	147	538	5,271	14%	8%	5%	5%
Bus	1,726	3	43	1,337	2%	0%	0%	1%
Pedestrians *	10,656	376	1,916	8,859	13%	20%	18%	8%
Age								
0-14	4,590	52	373	4,982	6%	3%	4%	5%
15-24	16,455	206	1,575	18,964	20%	11%	15%	18%
25-34	23,676	298	1,955	25,102	28%	16%	19%	24%
35-44	20,910	350	2,036	20,804	25%	18%	19%	20%
45-54	14,592	274	1,671	13,799	18%	14%	16%	13%
55-64	8,611	200	1,043	8,102	10%	11%	10%	8%
65-74	4,953	196	775	4,485	6%	10%	7%	4%
75-84	3,497	236	626	2,964	4%	12%	6%	3%
85 and over	1,003	75	168	822	1%	4%	2%	1%
Sex								
Male	58,462	1,440	7,372	62,747	70%	76%	71%	60%
Female	36,369	458	3,018	41,737	44%	24%	29%	40%

** The pedestrians being involved in accidents coded as 'running over a pedestrian' do not include all the pedestrians who were run over, because the classification by type of accident is made according to the first manoeuvre and not to the damaging consequences of them.*

THE EUROPEAN FRAMEWORK

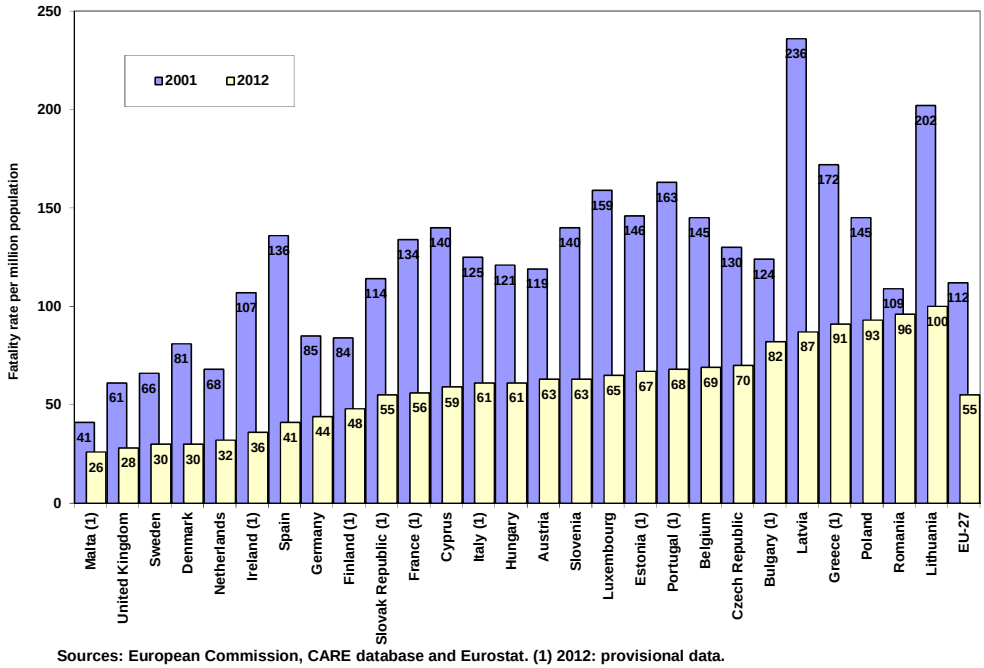
SITUATION IN SPAIN

In 2012, there were more than 27,000 road traffic fatalities in the European Union (27 MS), 7 per cent of these fatalities occurred in Spain. That year, the Spanish population represented 9 per cent of the European population.

Although at the edition date of this publication the European Commission's official data on road traffic accidents for 2012 had not been published yet, the provisional data on deaths per million of population for that year are known for every Member State.

As shown in the chart of deaths per million population in 2001 and 2012, all the EU Member States show decreases in that period: in 16 countries, the fatality rate per million population has decreased over the European rate. In 2001 Spain ranked eighteenth in the current EU of 27 Member States, with a rate of 136 fatalities per million population, a rate above the European average, which was 112. In 2012 Spain ranked seventh, with a rate of 41 fatalities per million population; this rate was below the European average, which was 55.

Figure 1. Fatality rate per million population in the European Union.



Sources: European Commission, CARE database and Eurostat. (1) 2012: provisional data.

EVOLUTION

The evolution of the fatality rate from 2001 to the present shows that the contribution to EU objectives is different depending on the country.

Chart 4.- Comparison of fatalities in 2001, 2011 and 2012 in the European Union Member States

Countries	2001	2011	2012	2012/2011 (%)
Germany	6,977	4,009	3,600	-10%
Austria	958	523	531	2%
Belgium	1,486	858	767	-11%
Bulgaria (2)	1,011	657	602	-8%
Czech Republic	1,333	772	738	-4%
Cyprus	98	71	51	-28%
Denmark	431	220	167	-24%
Slovakia (2)	614	324	296	-9%
Slovenia	278	141	130	-8%
Spain	5,517	2,060	1,903	-8%
Estonia (2)	199	101	87	-14%
Finland (2)	433	292	260	-11%
France (2)	8,162	3,963	3,645	-8%
Greece (2)	1,880	1,141	1,027	-10%
Hungary	1,239	638	605	-5%
Ireland (1) (2)	412	186	164	-12%
Italy	7,096	3,860	3,650	-5%
Latvia	558	179	177	-1%
Lithuania	706	296	301	2%
Luxembourg	70	33	34	3%
Malta (2)	16	21	11	-48%
The Netherlands	993	546	537	-2%
Poland	5,534	4,189	3,571	-15%
Portugal (2)	1,670	891	720	-19%
United Kingdom	3,598	1,960	1,802	-8%
Romania	2,450	2,018	2,042	1%
Sweden	583	319	285	-11%
EU-27	**54,302**	**30,268**	**27,703**	**-8%**

Source: European Commission and CARE database (EU Database on Road Accidents)
(1) 2011. Provisional data
(2) 2012. Provisional data