



The Elderly (Aged > 64)

Pedestrians

Bicycles

Traffic Safety Basic Facts 2011

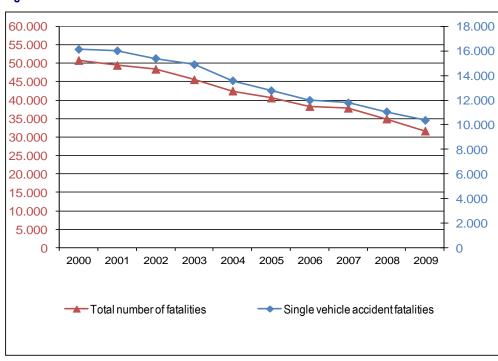
Single vehicle accidents

In this Basic Fact Sheet, 'single vehicle accident' or single vehicle collision is a type of road traffic accident in which only one vehicle and no other road user is involved. Run-off-road collisions, collisions with fallen rocks or debris in the road, rollover crashes within the roadway and collisions with animals are included in this category.

More than 134.000 persons were killed in single vehicle accidents, in 18 European Union countries within the decade 2000 - 2009. This number represents almost one third of all traffic accident fatalities in those countries (32%).

The number of people killed in single vehicle accidents in 2009¹ was 36% less than the respective number in 2000. The total number of fatalities also fell by 38% in the 18 European Union countries over the same period.





Source: CARE Database / EC Date of query: January 2012

A significant decrease of 36% in single vehicle accident fatalities is recorded during the decade 2000-2009

More than 134.000 persons in EU-18 -one third of all traffic accident fatalities-were killed in single vehicle accidents, within the decade

2000 - 2009

Mobility & Transport

See Table "Country abbreviations used and definition of EU-level" on page 25.

² Where a number is missing for an EU-18/23 country in a particular year, its contribution to the EU-18/23 total is estimated as the closer known value.





Main Figures

Youngsters (Aged 15-17)

The Elderly (Aged > 64)

Pedestrians

Car

In addition, in the EU-23 countries the number of single vehicle accident fatalities was reduced by 7% within the years 2007-2008, whereas total fatalities were reduced by 8%. However, it should be noted that the total fatalities were further reduced in the EU-23 countries (10%) within the years 2008-2009, whereas the reduction of fatalities in single vehicle accidents remained almost stable (7%) in the same time period.

Table 1 provides an overview of the evolution of single vehicle accident fatalities for the decade 2000-2009. Within the decade, the most significant reduction in single vehicle fatalities is noticed in Portugal (63%), Slovakia (53%) and Spain (51%). In 2009, a considerable decrease in the numbers of fatalities is noted in Portugal (38%), Slovakia (31%), Latvia (30%). On the other hand, a considerable increase at the same time period is recorded only in France (8%).

Table 1: Single vehicle accident fatalities per country 2000-2009²

2000 2001 2002 2003 2004 2006 2007 2008 2009 2005 BE 589 615 524 519 567 482 470 464 420 422 CZ 479 398 448 499 423 402 343 427 326 326 DK 115 114 141 111 86 75 72 89 112 90 2.408 2.273 2.289 2.255 1.390 DE 1.905 1.763 1.638 1.566 1.372 EL 728 658 542 570 602 632 637 613 571 551 2.038 2.000 1.892 1.907 1.713 1.558 1.451 1.327 1.129 1.009 ES FR 2.925 3.078 2.858 2.384 2.149 1.987 1.796 1.737 1.605 1.734 IT 1.977 2.050 1.851 1.990 1.690 1.681 1.650 1.445 1.295 1.261 LU 30 30 17 24 19 19 14 38 18 19 244 227 NL 313 345 341 187 177 158 154 352 **AT** 380 425 352 325 324 282 268 243 242 239 PL 1.235 1.362 1.318 1.228 1.299 1.269 1.487 1.458 1.195 PT 629 601 572 536 456 494 396 390 378 235 RO 1.004 1.006 1.003 715 616 724 772 955 887 900 SI 77 59 62 48 61 47 57 65 43 36 FI 121 123 133 106 118 127 127 116 124 109 SE 205 205 189 195 190 186 157 169 153 149 UK 754 839 838 848 893 865 848 874 655 619 **EU-18** 16.139 16.020 15.393 14.900 13.584 11.998 11.789 11.059 12.778 10.365 % yearly 0.7 3.9 3.2 5.9 reduction 8.8 6.1 1.7 6.2 6,3 (EU-18) EE 51 65 41 _ 81 32 L۷ --145 118 116 99 119 83 HU 307 293 304 322 295 244 228 MT ---3 3 5 1 5 SK _ _ 190 161 188 170 117 _ **EU-23** 10.830 13.444 12.665 12.457 11.634 --_ _ IS 16 11 10 9 14 7 6 8

reduction in single vehicle accident fatalities is recorded in Portugal (63%) and Slovakia (53%)

Within the decade

2000 - 2009, the

most significant

Source: CARE Database / EC Date of query: January 2012



foung People Youngsters Children Aged 18-24) (Aged 15-17) (Aged < 15)

Table 2 provides the percentage of single vehicle accident fatalities per total fatalities in the EU-18/23 for the decade 2000-2009. In 2009, the percentage of single vehicle accident fatalities per total fatalities was 33% in the EU-23 countries, as it is shown in Table 2.

Table 2: Percentage of single vehicle accident fatalities per total fatalities in the EU -18/23¹, 2000-2009²

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
BE	40%	41%	40%	43%	49%	44%	44%	43%	45%	45%
CZ	32%	30%	31%	35%	31%	31%	32%	35%	30%	36%
DK	23%	27%	31%	26%	23%	23%	24%	22%	28%	30%
DE	32%	33%	34%	34%	33%	33%	32%	32%	31%	33%
EL	36%	35%	33%	36%	36%	38%	38%	38%	37%	38%
ES	35%	36%	35%	35%	36%	35%	35%	35%	36%	37%
FR	36%	38%	37%	39%	39%	37%	38%	38%	38%	41%
IT	28%	29%	27%	30%	28%	29%	29%	28%	27%	30%
LU	50%	43%	48%	32%	36%	51%	44%	41%	40%	40%
NL	33%	32%	35%	33%	23%	24%	22%	22%	36%	35%
AT	39%	44%	37%	35%	37%	37%	37%	35%	36%	38%
PL	-	22%	23%	23%	22%	24%	24%	27%	27%	26%
PT	34%	36%	34%	35%	35%	40%	41%	40%	43%	28%
RO	41%	41%	40%	40%	41%	27%	24%	26%	29%	28%
SI	25%	21%	23%	20%	22%	18%	22%	22%	20%	21%
FI	31%	28%	32%	28%	32%	34%	38%	31%	36%	39%
SE	35%	35%	34%	37%	40%	42%	35%	36%	39%	42%
UK	23%	23%	24%	24%	26%	25%	27%	25%	25%	27%
EU-18	31,8%	32,4%	31,8%	32,7%	32,0%	31,5%	31,3%	31,2%	31,7%	32,7%
EE	-	-	-	-	-	30%	32%	41%	31%	33%
LV	-	-	-	-	28%	27%	29%	24%	38%	33%
HU	-	-	-	23%	23%	24%	25%	24%	25%	28%
MT	-	-	-	1	-	18%	27%	42%	11%	33%
SK	ı	1	-	1	-	31%	26%	28%	28%	31%
EU-23	•	-	-	•	_	31,2%	31,0%	30,9%	31,5%	32,6%
IS	-	-	55%	48%	44%	47%	45%	47%	50%	47%

Source: CARE Database / EC Date of query: January 2012

Even though in 2009 single vehicle accident fatalities constitute on average one third of the overall fatalities in the EU-23, the respective ratio in Slovenia was only 21%, whereas Belgium has the highest percentage of single vehicle accident fatalities (45%). Figure 2 shows that single vehicle accident fatalities in the EU-18 are reduced gradually from 2000 to 2009, whereas the proportion of all fatalities that occurred in single vehicle accidents does not follow the same trend, especially during the last three years 2007-2009, when a higher reduction was recorded for overall fatalities, comparing to the reduction of single vehicle accident fatalities.

The proportion of fatalities occurring in single vehicle accident slightly increased in 2009 (33%) comparing to the previous 4 years

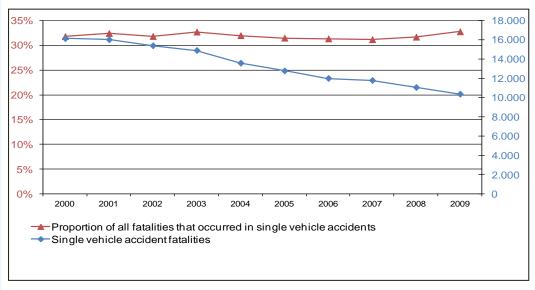
Mobility & Transport

Main Figures

The Elderly (Aged > 64)

Pedestrians

Figure 2: Proportion of all fatalities that occurred in single vehicle accidents and single vehicle accident fatalities in the EU-18, 2000-2009²



Source: CARE Database / EC Date of query: January 2012

Table 3: Single vehicle accident fatalities per million inhabitants in the EU -18/231, 2000-20092

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 BE 57,5 59,9 50,8 50,1 54,5 46,1 44,7 43,8 39,4 39,3 CZ 43.9 48,9 39,3 33,5 41.5 31,4 46,6 38,8 41.4 31,1 DK 21,6 21,3 26,3 20,6 15,9 13,9 13,3 16,3 20,5 16,3 DE 27,6 27,8 27,3 21,4 19,9 19,0 29,3 23,1 16,9 16,7 60,2 49,4 57,3 54,9 50,9 48,9 EL 66,8 51,8 54,5 57,0 ES 50,9 49,4 46,2 45,8 40,4 36,2 33,2 29,8 24,9 22,0 FR 48,3 50,5 46,5 38,5 34,5 31,7 28,5 27,4 25,2 27,0 IT 34.7 36.0 32.5 34.7 29,2 28.8 28.1 24.4 21.7 21.0 LU 68,3 37,9 52,0 40,5 39,9 28,9 38,6 87,6 67,6 39,6 NL 22,2 19,6 21,4 21,1 11,5 10,9 9,7 9,4 14,9 13,8 ΑT 47,5 53,0 43,6 40,1 39,8 34,4 32.4 29,3 29,0 28,6 PL 32,3 35,6 34,5 32,2 34,0 33,3 39.0 38,3 31,3 PT 61,7 58,6 55,4 51,5 43,5 46,9 37,4 36,8 35,6 22,1 RO 44,7 44.8 43,7 40,7 46,2 33,0 28,5 33,6 41,8 35,9 29.6 SI 38.7 31.1 24.1 30.6 23.5 28.5 32.3 21.2 17.5 FI 23,4 23,7 25,6 20,4 22,6 24,3 24,2 22,0 23,4 20,5 23,1 21,8 SE 23,1 21,2 21,2 20,6 17,4 16,7 18,5 16,1 UK 14,3 14,2 14,3 15,0 14,5 14,1 14,5 12,4 10,7 10,0 **EU-18** 36,1 35,8 34,3 33,0 30,0 28,1 26,2 25,7 22,3 23,9 48,3 EE 37,8 60,3 30,6 24,0 LV 62,5 51,2 50,6 43,4 52,4 36,7 _ _ _ HU 30,3 29.3 _ 29,0 30,1 32,0 24,3 22,7 2,4 MT 7,5 7,4 12,3 12,1 SK --35,3 29,9 34,9 31,5 21,6 _ _ **EU-23** 28,3 26,6 26,0 24.2 22.4 IS 38,1 34,4 30,7 46,7 22,8 55,8 19,0 25,0

> Source: CARE Database / EC Date of query: January 2012

Even though reduction is recorded in single vehicle accident fatalities within the examined decade in 18 EU countries, the proportion of all fatalities that occurred in single vehicle accidents increased, especially during the last three years 2007-2009.



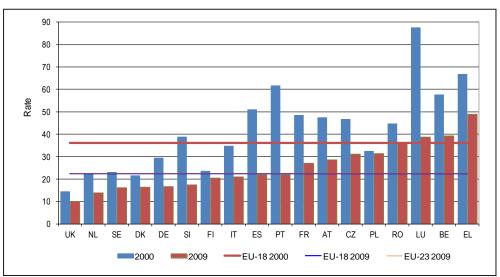
Mobility & Transport

Motorway

Koads in urban areas

urban areas

Figure 3: Single vehicle accident fatalities per million inhabitants, 2000 compared to 2009²



Source: CARE Database / EC Date of query: January 2012 Source of population data: Eurostat

Figure 3 shows that the average fatality rate decreased by 38% between 2000 and 2009 in the EU-18 countries. The fatality rate for the EU-23 countries for 2009 is almost the same with the corresponding rate for the EU-18 countries as it is shown in Table 3 and Figure 3. Greece had the highest single vehicle fatality rate (48,9) in 2009, which is more than twice the average EU-23 rate, whereas the United Kingdom has the lowest rate (10,0).

The most significant reduction of the single vehicle accident fatality rate over the decade 2000-2009 is recorded in Portugal (64%) and only Greece and Belgium have higher fatality rates in 2009 than the EU-18 average for 2000.

In 2009² Greece had more than twice the EU-23 average single vehicle fatality rate

The most significant reduction of the single vehicle accident fatality rate over the decade 2000-2009 is recorded in Portugal (64%)



Mobility & Transport



44% of the drivers killed in single vehicle accidents are aged 25-34 years old



Age and Person Class

Table 4: Percentage of single and non-single vehicle accident fatalities of drivers by age group in the EU-23, 2009²

	"Single vehicle accident" driver fatalities						"Non-single vehicle accident" driver fatalities						
	<15	15-17	18-24	25-34	35-64	>64	<15	15-17	18-24	25-34	35-64	>64	1
BE	1%	2%	21%	51%	13%	12%	2%	3%	14%	34%	21%	25%	
CZ	1%	2%	23%	49%	14%	11%	2%	1%	10%	43%	21%	23%	>
DK	0%	10%	36%	36%	10%	9%	5%	4%	10%	42%	15%	25%	
DE	1%	3%	30%	36%	15%	15%	3%	3%	14%	31%	17%	33%	1
EE	0%	3%	38%	34%	13%	13%	6%	2%	14%	43%	14%	22%	;
EL	1%	3%	24%	50%	10%	12%	4%	3%	13%	39%	18%	24%	H
ES	1%	3%	18%	52%	13%	12%	3%	2%	10%	45%	17%	23%	Ī
FR	2%	4%	28%	44%	12%	10%	4%	5%	16%	35%	16%	25%	Ē
IT	1%	3%	21%	43%	16%	16%	2%	3%	11%	36%	16%	32%	
LV	1%	0%	17%	56%	19%	6%	4%	2%	11%	44%	20%	19%	
LU	0%	0%	32%	32%	21%	16%	21%	0%	14%	21%	24%	21%	
HU	3%	4%	16%	50%	16%	11%	3%	1%	7%	40%	25%	24%	Ī
MT	20%	0%	40%	40%	0%	0%	0%	0%	0%	30%	20%	50%	
NL	0%	3%	33%	36%	11%	17%	5%	5%	12%	26%	16%	36%	
AT	1%	5%	19%	46%	13%	15%	3%	4%	13%	30%	18%	31%	
PL	2%	4%	34%	44%	12%	4%	3%	2%	13%	34%	25%	23%	
PT	1%	2%	10%	54%	20%	13%	3%	2%	14%	34%	17%	29%	77
RO	3%	4%	28%	45%	12%	9%	5%	1%	10%	32%	25%	26%	Ī
SI	0%	0%	19%	47%	19%	14%	1%	3%	17%	33%	21%	25%	
SK	1%	3%	33%	43%	9%	11%	4%	1%	10%	36%	32%	18%	
FI	1%	9%	28%	38%	13%	12%	3%	8%	12%	25%	19%	33%	+
SE	0%	12%	21%	32%	18%	16%	4%	3%	13%	25%	22%	33%	Ċ
UK	1%	7%	31%	42%	11%	8%	4%	5%	16%	38%	15%	22%	
EU-23	1%	4%	26%	44%	13%	11%	3%	3%	13%	35%	19%	26%	
IS	0%	13%	13%	38%	25%	13%	0%	0%	0%	56%	22%	22%	

Source: CARE Database / EC Date of query: January 2012

In Table 4 it can be seen that 44% of the drivers killed in single vehicle accidents are aged 25-34 years old. Moreover, the ratio of young drivers (18-24 years old) killed in single vehicle accidents is twice the respective ratio for the non-single vehicle accidents (26% comparing to 13%).

Moreover Figure 4 shows the proportion of driver fatalities in single and non single vehicle accidents per age group. Almost half drivers aged 18-24 years old were killed in single vehicle road accidents.

) Main Fi

Children (Aged < 15)

ngsters Chil 115-17) (Aged

Young People Youngst Aged 18-24) (Aged 15

The Elderly You (Aged > 64) Ag

les Pedestrians

Motorcycles & Mopeds

Car M ccupants 8

avy Goods ehicles

Heavy (

Motol

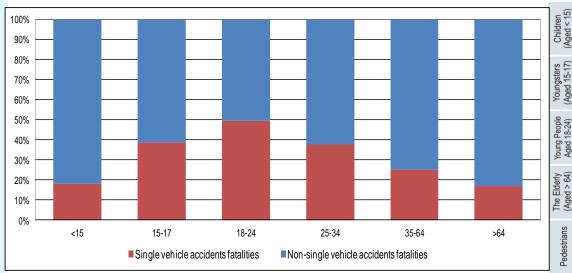
in Junctions

outside

Roa nality urb

le vehicle Se





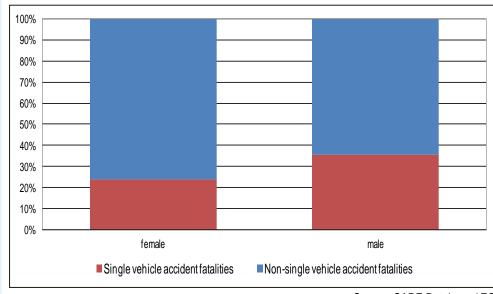
Source: CARE Database / EC Date of query: January 2012

Gender

Mobility & Transport

Males account for 82% of the overall single vehicle accidents fatalities in the EU-23 countries, in 2009². Figure 5 indicates that one fifth of the overall female fatalities occurred in single vehicle accidents, comparing to male fatalities one third of which concern single vehicle accidents.

Figure 5: Proportion of fatalities per gender in single and non-single vehicle accidents in the EU-23,



Source: CARE Database / EC Date of query: January 2012

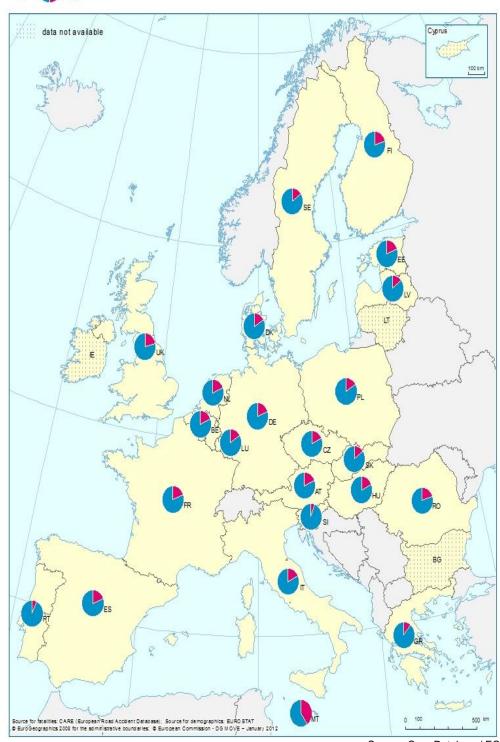
Males account for 82% of the overall single vehicle accidents fatalities in the EU-23 countries in 2009²





Map 1: Fatalities in single vehicle accidents by gender, 20092





Source: Care Database/ EC

Main Figures

Children (Aged < 15)

ole Youngsters 4) (Aged 15-17)

Iderly Young People > 64) Aged 18-24)

Pedestrians

& Mopeds Bic

us car occupants

/S Vehicles

Motorway

an areas Junctio

urban areas urb

Seasonality

ngle venicle accidents



Mode of transport

Table 5 presents the distribution of single vehicle accident fatalities by mode of transport in 2009. In the EU-23 countries, the highest percentage of fatalities is noticed for car/taxis (67%), with the two wheeler fatalities (mopeds, motorcycles and pedal cycles) accounting for 22% in 2009.

Table 5: Single vehicle accident fatalities by mode of transport, 2009²

	Car / taxi	Lorries	Two-wheelers	Other	Total
BE	65%	7%	14%	14%	422
CZ	73%	5%	20%	2%	326
DK	79%	6%	13%	2%	90
DE	68%	5%	25%	2%	1.372
EE	91%	9%	0%	0%	32
EL	57%	8%	30%	6%	551
ES	57%	11%	26%	6%	1.009
FR	64%	6%	26%	3%	1.734
IT	62%	1%	31%	7%	1.261
LV	83%	5%	5%	7%	83
LU	84%	0%	16%	0%	19
HU	67%	7%	24%	3%	227
MT	80%	0%	20%	0%	5
NL	70%	6%	22%	2%	227
AT	68%	3%	22%	7%	239
PL	87%	0%	11%	3%	1.150
PT	37%	17%	30%	15%	235
RO	72%	6%	13%	9%	772
SI	53%	3%	33%	11%	36
SK	72%	4%	18%	6%	117
FI	71%	5%	17%	7%	109
SE	75%	2%	18%	5%	149
UK	73%	4%	22%	1%	619
EU-23	67,4%	5,3%	22,4%	5%	10.784
IS	50%	13%	13%	25%	8

Source: CARE Database / EC Date of query: January 2012

Figure 6 shows that the highest proportion of car and taxi fatalities in single vehicle accidents among the 23 European countries is observed in Estonia (91%) and Latvia (87%). On the other hand, the lowest respective rate is observed in Portugal (37%).

In the EU-23, the highest percentage of fatalities is noticed in car/taxis (67%) with two wheelers' fatalities accounting for 22% in 2009

Mobility & Transport

: 15) Main Fig

Children (Aged < 15

Youngsters (Aged 15-17)

Aged 18-24)

(Aged > 64)

Pedestrians

Aopeds Bic

occupants

S

N suoit

an areas

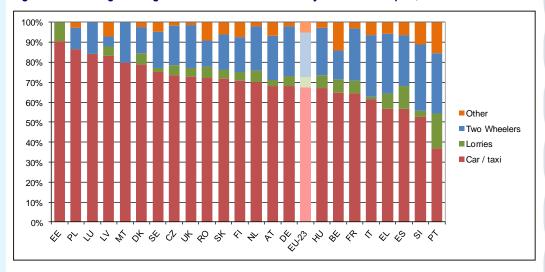
dus outside ban areas

Seasonality

single vehicle accidents

In EU-23 the highest proportion of car and taxi fatalities in single vehicle accidents occurred in Estonia (91%) in 2009





Source: CARE Database / EC Date of query: January 2012

As far as two wheelers' fatalities (motorcycle, moped or pedal cycles) are concerned, the lowest proportion was in Latvia (5%) and in Poland (11%) as shown in Figure 6. Slovenia has the highest proportion of two wheelers' fatalities (33%) among the EU-23 countries. Spain has the highest percentage (11%) of fatalities in lorries among the other countries.

Area and Road type

In Table 6 and Figure 7 the distribution of fatalities in single vehicle accidents by area and road type in the European countries is presented. In the EU-23, almost 71% of the single vehicle accident fatalities occur outside urban areas, more than twice the respective percentage inside urban areas (29%).

3d > 64) Aged 18-24) (Aged 15-17) (Aged < 15) Main Fig

Bicycles

& Mopeds

cupants

Vehicles

torways

nctions

urban areas

Koads outside urban areas

Seasonality

single vehicle accidents



In EU-23 single vehicle accident fatalities occurring outside urban areas account for more than twice the respective percentage inside urban areas

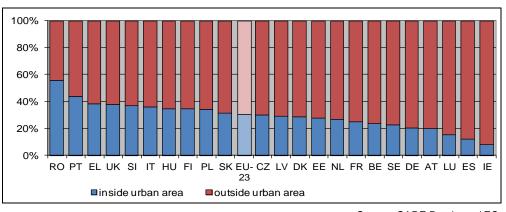
Table 6: Percentage of single vehicle accident fatalities by area and road type 20092

ible 0. Fel	centage of single vehicle accident fatalities by area and road type, 2009 ²								
	inside urban area	0	utside urban area						
		motorway	non-motorway	not defined					
BE	21%	13%	66%	0%					
CZ	27%	3%	70%	0%					
DK	29%	4%	67%	0%					
DE	22%	12%	66%	0%					
EE	16%	0%	84%	0%					
EL	38%	8%	54%	0%					
ES	11%	6%	83%	0%					
FR	27%	4%	69%	0%					
IT	34%	11%	55%	0%					
LV	23%	0%	77%	0%					
LU	5%	95%	0%	0%					
HU	35%	10%	55%	0%					
MT	100%	0%	0%	0%					
NL	22%	15%	63%	0%					
AT	18%	11%	71%	0%					
PL	35%	1%	64%	0%					
PT	47%	11%	43%	0%					
RO	54%	1%	45%	0%					
SI	42%	6%	53%	0%					
SK	35%	1%	64%	0%					
FI	27%	9%	64%	0%					
SE	19%	3%	74%	3%					
UK	36%	7%	57%	0%					
EU-23	29%	7%	64%	0%					
IS	0%	0%	100%	0%					

Source: CARE Database / EC Date of query: January 2012

Figure 7 shows that Romania has the highest percentage of single vehicle accident fatalities inside urban areas (54%), whereas Ireland has the lowest respective percentage amongst the EU-23 countries in 2009.

Figure 7: Percentage of single vehicle fatalities by area type, 20092



Source: CARE Database / EC Date of query: January 2012

Romania has the highest percentage of single vehicle accident fatalities inside urban areas (54%)

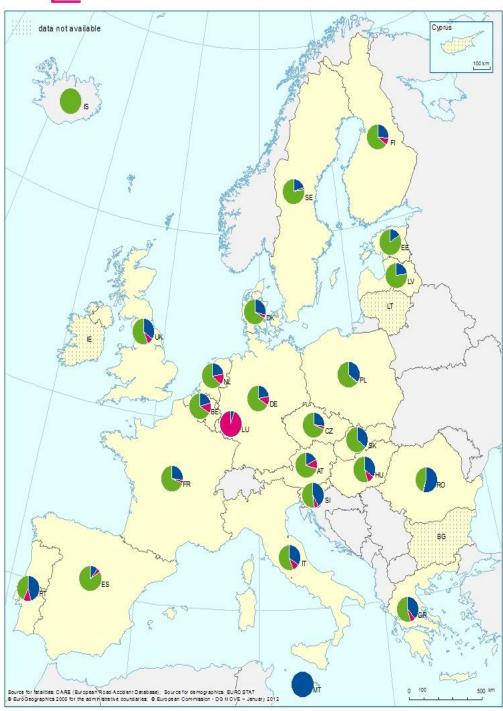
Mobility & Transport





Map 2: Fatalities in single vehicle accidents by area type, 2009²





Source: Care Database/ EC

Single vehicle accidents



Table 7 shows the percentage of single vehicle accident fatalities per total fatalities by area and road type in 2009. More than one third of the fatalities outside urban areas on the non-motorway network occurred in single vehicle accidents, whereas one fourth of the fatalities occurred in single vehicle accidents inside urban areas.

Table 7: Percentage of single vehicle accident fatalities per total fatalities by area and road type, 2009²

			outside urban area	
	inside urban area	motorway	non-motorway	not defined
BE	34%	37%	52%	-
CZ	27%	44%	41%	1
DK	28%	17%	32%	-
DE	25%	33%	37%	ı
EE	26%	-	34%	ı
EL	33%	41%	42%	-
ES	19%	64%	41%	-
FR	37%	32%	43%	ı
IT	23%	38%	35%	-
LV	28%	-	34%	-
LU	10%	50%	-	0%
HU	27%	58%	26%	-
MT	33%	-	-	-
NL	22%	40%	43%	50%
AT	25%	43%	43%	-
PL	19%	30%	33%	-
PT	28%	28%	28%	ı
RO	24%	36%	34%	-
SI	23%	7%	25%	-
SK	23%	11%	38%	-
FI	38%	83%	37%	-
SE	33%	21%	46%	71%
UK	22%	35%	29%	-
EU-23	25%	37%	37%	55%
IS	0%	-	67%	-

Source: CARE Database / EC Date of query: January 2012

Manoeuvre type

Table 8 shows the fatalities occurred in single vehicle accidents by manoeuvre type inside/outside urban areas in 2009. The vehicle manoeuvre most frequently associated with single vehicle accident fatalities is driving 'straight ahead' for both types of area (inside and outside urban areas). It is noted though that 34% (inside urban area) and 42% (outside urban area) of the single accident fatalities by manoeuvre type are not defined.

Main Figures

Children Aged < 15)

> Youngsters (Aged 15-17)

Young People Aged 18-24)

(Aged > 64)

s Pedes

& Mopeds B

occupants

'S Vehicle

ns Mot

an areas

Roads outside urban areas

Seasonality

Single vehicle accidents



The vehicle manoeuvre most frequently associated with single vehicle accident fatalities is driving 'straight ahead'



Table 8: Single vehicle accident fatalities by manoeuvre type inside/outside urban areas, 20092

		insid	le urban	area			outsi	de urban	area	
	over-taking	stopped / stopping	straight ahead	turning / u turn	other / not defined	over-taking	Stopped / stopping	straight ahead	turning / u turn	other
BE	7%	1%	21%	1%	70%	7%	0%	12%	0%	80%
CZ	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
DK	0%	0%	88%	8%	4%	0%	0%	98%	2%	0%
DE	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
EE	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
EL	0%	3%	58%	6%	33%	1%	1%	49%	8%	42%
ES	0%	10%	54%	5%	30%	2%	5%	83%	1%	8%
FR	2%	0%	56%	26%	15%	3%	0%	61%	27%	8%
IT	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
LV	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
LU	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
HU	0%	0%	89%	0%	11%	0%	0%	86%	0%	14%
MT	0%	0%	25%	0%	75%	-	-	-	-	1
NL	0%	0%	73%	5%	22%	0%	0%	97%	1%	2%
AT	0%	0%	0%	0%	100%	0%	2%	0%	0%	98%
PL	0%	0%	0%	0%	100%	0%	1%	0%	0%	99%
PT	3%	0%	74%	2%	21%	4%	0%	87%	0%	9%
RO	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
SI	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
SK	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
FI	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
SE	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
UK	0%	0%	26%	1%	73%	0%	0%	95%	1%	4%
EU-23	22	25	899	155	3.217	86	62	2.575	393	4.460
%	0%	1%	21%	4%	75%	1%	1%	34%	5%	59%
IS	-	-	-	-	-	0%	38%	50%	0%	13%

Main Figur

Children (Aged < 15)

> Youngsters (Aged 15-17)

y Young People 4) Aged 18-24)

ans (Aged > 6

Bicycles

& Mopeds

occupants

Vehicles

Motorways

Junctions

rban areas

ads outside ban areas

Date of query: January 2012

asonality

accidents

Gende





Lighting Conditions

Table 9 and Figure 8 show the percentage of single vehicle accident fatalities per total fatalities by lighting condition in 2009. More than one third of the fatalities that occurred when it was dark, concerned single vehicle accidents (38%).

Table 9: Percentage of single vehicle accident fatalities per total fatalities by lighting condition, 2009²

	darkness	daylight or twilight	not defined	Total
BE	55%	33%	93%	422
CZ	44%	-	-	326
DK	32%	28%	-	90
DE	38%	31%	-	1.372
EE	39%	27%	-	32
EL	43%	34%	-	551
ES	40%	36%	-	1.009
FR	54%	33%	-	1.734
IT	-	-	30%	1.261
LV	-	-	33%	83
LU	21%	45%	60%	19
HU	28%	27%	-	228
MT	29%	75%	-	5
NL	53%	27%	100%	227
AT	44%	34%	-	239
PL	25%	27%	-	1.195
PT	27%	28%	-	234
RO	32%	25%	-	772
SI	-	-	21%	36
SK	29%	30%	67%	117
FI	36%	40%	-	109
SE	46%	38%	60%	149
UK	34%	20%	-	619
EU-23	38%	30%	30%	10.830
IS	50%	38%	-	8

In 2009, 38% of the single vehicle accident fatalities occurred when it was dark, in EU-23

> Source: CARE Database / EC Date of query: January 2012

Main Figures

Children (Aged < 15)

Youngsters (Aged 15-17)

> rly Young People 34) Aged 18-24)

> > estrians (Ag

Bicycles

upants & M

Vehicles

Motorways

Junctions

oan areas

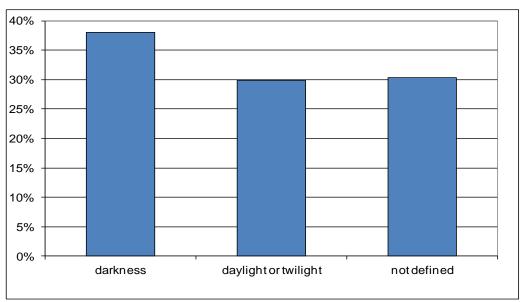
toads outside urban areas u

Seasonality

ingle vehicle accidents

Youngsters Children (Aged 15-17) (Aged < 15) Main Figures

Figure 8: Percentage of single vehicle accident fatalities per total fatalities by lighting condition in the EU-23, 2009²



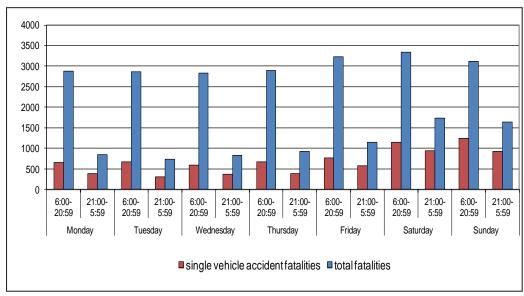
Source: CARE Database / EC Date of query: January 2012

Day of week and Time of day

Mobility & Transport

Figure 9 shows fatalities concerning single vehicle accidents and total accidents in the EU-23 countries. 60% of all single vehicle accident fatalities occurred between 06:00 and 20:59 in the 23 EU countries in 2009. Sunday is the day of the week when most single vehicle accident fatalities are recorded (23%).

Figure 9: Single vehicle accident and total fatalities by day of week and time of day in the EU-23, 2009²



Source: CARE Database / EC Date of query: January 2012

Sunday is the day of the week when most single vehicle accident fatalities are recorded (23%)





Seasonality

Table 10 shows the percentage of single vehicle accident fatalities through the year, using pair of months for 2009.

Table 10: Percentage of all fatalities that occurred in single vehicle accident by months, 20092

	January/ February	March/ April	May/ June	July/ August	September/ October	November/ December	Total
BE	16%	18%	19%	14%	17%	15%	422
CZ	13%	14%	18%	21%	21%	13%	326
DK	14%	24%	14%	19%	21%	7%	90
DE	12%	16%	22%	18%	18%	14%	1.372
EE	16%	13%	13%	41%	16%	3%	32
EL	15%	16%	19%	18%	18%	13%	551
ES	16%	15%	19%	21%	15%	13%	1.009
FR	14%	14%	19%	20%	20%	13%	1.734
IT	14%	16%	18%	21%	17%	15%	1.261
LV	11%	20%	27%	20%	14%	7%	83
LU	0%	26%	32%	11%	21%	11%	19
HU	11%	21%	23%	20%	13%	11%	228
MT	0%	20%	20%	60%	0%	0%	5
NL	14%	17%	22%	13%	16%	18%	227
AT	8%	13%	24%	24%	22%	8%	239
PL	11%	15%	19%	23%	19%	12%	1.195
PT	16%	14%	20%	23%	15%	12%	234
RO	12%	13%	18%	20%	21%	15%	772
SI	14%	14%	11%	28%	19%	14%	36
SK	9%	15%	22%	30%	16%	8%	117
FI	6%	13%	34%	23%	18%	6%	109
SE	9%	15%	21%	26%	12%	16%	149
UK	19%	16%	16%	19%	14%	14%	619
EU-23	13%	16%	20%	20%	18%	13%	10.830
IS	0%	13%	13%	38%	38%	0%	8

Source: CARE Database / EC Date of query: January 2012

In most of the EU-23 countries, the majority of the single vehicle accident fatalities are recorded in May/June (Belgium, Denmark, Latvia, Luxembourg) and July/August (Estonia, Malta, Slovenia, Slovakia, Sweden) while for Romania the peak is in September/October. Less single vehicle accident fatalities occur in January/February and November/December in the EU-23(13%).

Figure 10 displays the percentage of single vehicle accident fatalities per total fatalities on a monthly basis in the EU-23 countries and it is noted that almost 37% of the fatalities in May occur in single vehicle accidents, while the lowest respective proportion is observed in November (27%).

The peak months of single vehicle accident fatalities for most of the

countries are May/June and July/August

Mobility & Transport

Roads in

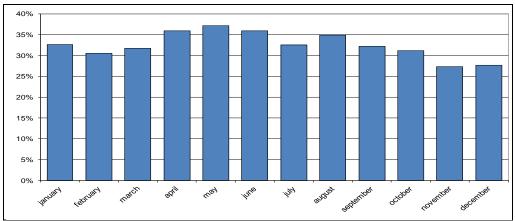
Roads outside urban areas

asonality

vehicle Se

Main Figures





Source: CARE Database / EC Date of query: January 2012

Weather conditions

Table 11 displays the fatalities in single vehicle accidents by weather conditions.

Table 11: Single vehicle accident fatalities by weather conditions, 2009²

	dry	rain	other	snow	not defined	Total
BE	73%	10%	3%	0%	14%	422
CZ	83%	9%	5%	2%	0%	326
DK	81%	11%	6%	0%	2%	90
DE	67%	3%	5%	0%	25%	1.372
EE	91%	9%	0%	0%	0%	32
EL	84%	12%	4%	0%	0%	551
ES	86%	9%	5%	0%	0%	1.009
FR	85%	10%	5%	0%	0%	1.734
IT	73%	11%	15%	0%	0%	1.261
LV	92%	8%	0%	0%	0%	83
LU	47%	16%	16%	0%	21%	19
HU	89%	7%	3%	1%	0%	228
MT	100%	0%	0%	0%	0%	5
NL	83%	11%	1%	1%	4%	227
AT	86%	8%	5%	0%	0%	239
PL	83%	11%	3%	3%	0%	1.195
PT	81%	18%	1%	0%	0%	234
RO	87%	9%	2%	2%	0%	772
SI	86%	11%	3%	0%	0%	36
SK	77%	10%	3%	3%	7%	117
FI	83%	3%	4%	6%	5%	109
SE	0%	0%	0%	0%	100%	149
UK	76%	16%	6%	1%	2%	619
EU-23	78,9%	9,5%	5,4%	0,7%	5,4%	10.830
IS	50%	25%	13%	0%	13%	8

Source: CARE Database / EC Date of query: January 2012

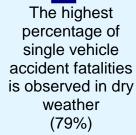




Table 11 shows that the highest percentage of single vehicle accident fatalities is observed when the weather is dry (79%) while the lowest percentage (1%) is observed when it snows in the EU-23 countries.

Table 12 indicates that in the EU-23 countries, 22% of the total fatalities recorded when it snows concern single vehicle accidents, whereas the respective percentage for rainy weather is 32%.

Table 12: Percentage of single vehicle accident fatalities per total fatalities by weather conditions, 2009²

	dry	rain	other	snow	not defined	Total
BE	40%	52%	48%	-	85%	422
CZ	37%	27%	40%	53%	-	326
DK	29%	26%	42%	-	100%	90
DE	32%	35%	41%	-	33%	1.372
EE	36%	30%	0%	-	0%	32
EL	37%	37%	53%	-	-	551
ES	37%	37%	43%	29%	-	1.009
FR	40%	40%	48%	-	-	1.734
IT	29%	32%	34%	-	-	1.261
LV	34%	50%	0%	0%	-	83
LU	43%	33%	100%	-	27%	19
HU	28%	28%	32%	12%	-	228
MT	50%	0%	-	-	0%	5
NL	33%	50%	50%	67%	82%	227
AT	39%	34%	33%	1	-	239
PL	27%	23%	30%	20%	-	1.195
PT	28%	27%	30%	1	0%	234
RO	28%	27%	29%	20%	-	772
SI	21%	22%	100%	-	0%	36
SK	31%	26%	19%	19%	67%	117
FI	39%	25%	40%	43%	71%	109
SE	-	-	-	-	42%	149
UK	25%	31%	32%	42%	36%	619
EU-23	32%	32%	37%	22%	38%	10.830
IS	31%	100%	100%	-	100%	8

Source: CARE Database / EC Date of query: January 2012

22% of the total fatalities recorded when it snows concern single vehicle accidents in the EU-23 Main Figures

Children (Aged < 15)

> Youngsters (Aged 15-17)

Young People Aged 18-24)

S (Aged > 64

Pedestri

Mopeds

occupants

Vehicles

s Moto

ban areas

oads outside urban areas

Seasonality

Single vehicle Saccidents





Junction

Table 13 displays the fatalities in single vehicle accidents by junction. It is noticed that the highest number of fatalities is noted at no junction areas (corresponding to 87% of the single vehicle accident fatalities in the EU-23 countries).

Table 13: Single vehicle accident fatalities by junction, 2009²

	junction	no junction	not defined	Total
BE	6%	94%	0%	422
CZ	7%	93%	0%	326
DK	14%	86%	0%	90
DE	8%	53%	39%	1.372
EE	19%	75%	6%	32
EL	0%	94%	6%	551
ES	9%	91%	0%	1.009
FR	6%	94%	0%	1.734
IT	8%	92%	0%	1.261
LV	4%	96%	0%	83
LU	5%	95%	0%	19
HU	7%	93%	0%	228
MT	0%	0%	100%	5
NL	8%	92%	0%	227
AT	4%	96%	0%	239
PL	5%	95%	0%	1.195
PT	10%	90%	0%	234
RO	4%	96%	0%	772
SI	0%	100%	0%	36
SK	3%	91%	7%	117
FI	10%	90%	0%	109
SE	10%	90%	0%	149
UK	23%	77%	0%	619
EU-23	7,4%	87,2%	5,4%	10.830
IS	0%	100%	0%	8

Source: CARE Database / EC Date of query: January 2012

Figure 11 presents the percentage of single vehicle accident fatalities per total fatalities by junction in the EU-23. It is noticed that 38% of the fatalities occurred at no junction areas concern single vehicle accidents.

The highest number of single vehicle fatalities is recorded at no junction areas n Figures

Children (Aged < 15)

Youngsters (Aged 15-17)

Young People Aged 18-24)

(Aged > 64)

Pedestria

Mopeds B

occupants

Vehicles

ons Mc

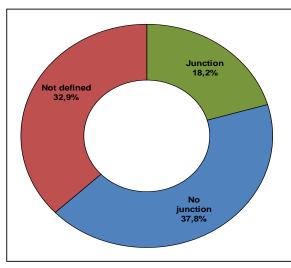
oads in an areas

ads outside ban areas

easonality

ingle vehicle accidents





Source: CARE Database / EC Date of query: January 2012

Accident Causation

During the EC SafetyNet project, in-depth data were collected using a common methodology for samples of accidents that occurred in Germany, Italy, The Netherlands, Finland, Sweden and the UK³ ⁴. The SafetyNet Accident Causation Database was formed between 2005 and 2008, and contains details of 1.006 accidents covering all injury A detailed process for recording causation (SafetyNet Accident Causation System - SNACS) attributes one specific critical event to each driver, rider or pedestrian. Links then form chains between the critical event and the causes that led to it. For example, the critical event of late action could be linked to the cause observation missed, which was a consequence of fatigue, itself a consequence of an extensive driving spell.

In the database, 26% (263) of the accidents involve just one vehicle (no pedestrian). Male drivers/riders account for 77% of this group and 73% are drivers of passenger cars, 11% are PTW riders and 10% are HGV drivers.

Figure 12 compares the distribution of specific critical events for drivers/riders in single vehicle accidents against the distribution in multiple vehicle accidents (no pedestrian accidents).

DaCoTA | Project co-financed by the European Commission, Directorate-General for Mobility & Transport

Youngsters Children (Aged 15-17) (Aged < 15) Main Figures

Junctions

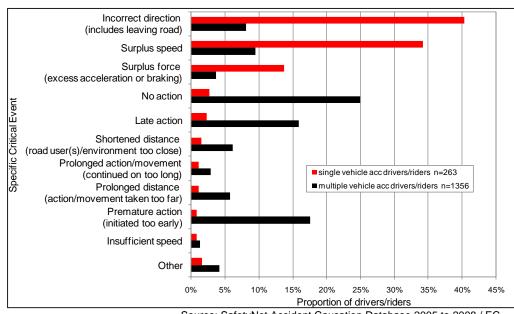
Roads in urban areas

³ SafetyNet D5.5, Glossary of Data Variables for Fatal and Accident Causation Databases

⁴ SafetyNet D5.8, In-Depth Accident Causation Database and Analysis Report

N=1619

Figure 12: Distribution of specific critical events for drivers or riders in single vehicle and multiple vehicle accidents



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

The distributions are very different for all the most often recorded specific critical events. In single vehicle accidents, incorrect direction and surplus speed are dominant, followed by surplus force (excess acceleration or braking). Surplus speed describes speed that is too high for the conditions or manoeuvre being carried out, or travelling above the speed limit. Incorrect direction refers to a manoeuvre being carried out in the wrong direction (for example, turning left instead of right) or leaving the road (not following the intended path of the road). 'Loss of control' type accidents can fall into any of these critical events depending on the specific situation. The 'timing' events (no action, premature action and late action), feature in high numbers for drivers/riders in multiple vehicle accidents as they often refer to interactions between road users (for example, initiating movement at a junction too early) or taking no action in a required time frame in relation to another road user.

Table 14 gives the most frequent links between causes for drivers or riders in single vehicle accidents. There are 361 such links in total.

Junctions Roads in urban areas





Table 14: Ten most frequent links between causes - drivers/riders in single vehicle accidents

Links between causes	Frequency
Inadequate plan - Under the influence of substances	35
Inadequate plan - Insufficient knowledge	32
Inadequate plan - Psychological stress	24
Information failure (driver/environment or driver/vehicle) - State of road	24
Faulty diagnosis - Information failure (driver/environment or driver/vehicle)	21
Observation missed - Fatigue	20
Inadequate plan - Fatigue	16
Observation missed - Distraction	13
Inadequate plan - Distraction	12
Observation missed - Under the influence of substances	11
Others	153
Total	361

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

Inadequate plan is by far the most frequently recorded cause and describes a lack of all the required details or that the driver's/rider's ideas do not correspond to reality. It is linked to impairment (substances, psychological stress and fatigue), insufficient knowledge and distraction. Except for stress, the same links can also be seen for observation missed.

State of the road refers to its current road-holding characteristics, and low friction due to ice or oil or dirt is sometimes not obvious, leading to information failure.

Faulty diagnosis is an incorrect or incomplete understanding of road conditions or another road user's actions and is linked with information failure (for example, a driver/rider thinking the road was straight, when in fact a bend was approaching).

10% of the links between causes are observed to be between 'inadequate plan' and 'under the influence of substances'. Main Figures

Children (Aged < 15)

> Youngsters (Aged 15-17)

> Young People Aged 18-24)

> > (Aged > 64

Pedestria

Mopeds

occupants

Vehicles

notorways

nctions

Roads in urban areas

Koads outside urban areas

Seasonalii

Single vehicle accidents

Gende





Disclaimer

The information in this document is provided as it is and no guarantee or warranty is given that the information is fit for any particular purpose. Therefore, the reader uses the information at their own risk and liability.

For more information

Further statistical information about fatalities is available from the CARE database at the Directorate General for Mobility and Transport of the European Commission, 28 Rue de Mot, B -1040 Brussels.

Traffic Safety Basic Fact Sheets available from the European Commission concern:

- Main Figures
- Children (Aged <15)
- Youngsters (Aged 15-17)
- Young People (Aged 18-24)
- The Elderly (Aged >64)
- Pedestrians
- Cyclists
- Motorcycles and Mopeds
- Car occupants
- Heavy Goods Vehicles and Buses
- Motorways
- Junctions
- Urban areas
- Roads outside urban areas
- Seasonality
- Single vehicle accidents
- Gender

Main Figure

Children \ged < 15)

Youngsters (Aged 15-17)

Young People Aged 18-24)

(Aged > 64)

Pedestrians

S Bicycl

& Mopeds

Car

eavy Goods Vehicles

orways

nctions

urban areas

ity Koads out

igle vehicle S





Country abbreviations used and definition of EU-level

EU - 18

EU-23 = EU-18 +

BE	Belgium
CZ	Czech Republic
DK	Denmark
DE	Germany
EL	Greece
ES	Spain
FR	France
IT	Italy
LU	Luxembourg
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
FI	Finland
SE	Sweden
UK	United Kingdom

EE	Estonia
LV	Latvia
IJ	Hungary
MT	Malta
SK	Slovakia

Detailed data on traffic accidents are published annually by the European Commission in the Annual Statistical Report. This includes a glossary of definitions on all variables used.

More information on the DaCoTA Project, co-financed by the European Commission, Directorate-General for Mobility and Transport is available at the DaCoTA Website: http://www.dacota-project.eu/index.html.

Authors

George Yannis, Petros Evgenikos, Panagiotis Papantoniou

NTUA, Greece

Jeremy Broughton, Jackie Knowles

Christian Brandstatter

TRL, UK KfV, Austria

Nimmi Candappa, Michiel Christoph, Kirsten van

SWOV, The Netherlands

Duijvenvoorde, Martijn Vis

Jean-François Pace, Carlos Martinez-Pérez, Jaime Sanmartín

INTRAS-UVEG, Spain

Mouloud Haddak, Liacine Bouaoun, Emmanuelle

IFSTTAR, France

Amoros

Alan Kirk

Mobility & Transport

Loughborough University, UK