



Traffic Safety Basic Facts 2018



Single vehicle accidents



A significant decrease of 42% in single vehicle accident fatalities was recorded during the decade 2007-2016.

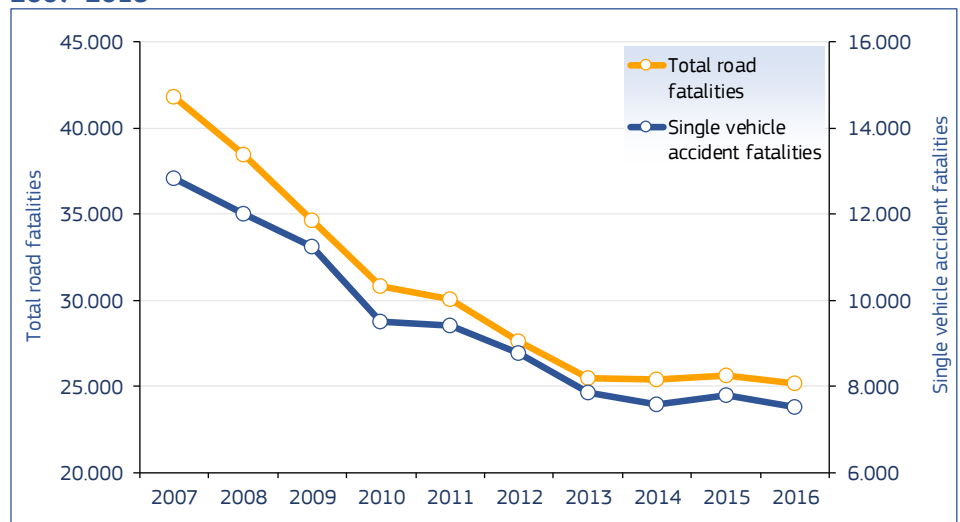
General

In this Basic Fact Sheet, ‘single vehicle accident’ or single vehicle collision is a type of road 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.

About 95.000 persons were killed in single vehicle accidents, in the European Union countries within the decade 2007-2016. This number represents almost one third of all road accident fatalities in those countries (31%).

The number of people killed in single vehicle accidents in 2016 was 42% less than the respective number in 2007. The total number of fatalities fell also by 41% in the European Union countries over the same period.

Figure 1: Number of single vehicle accident fatalities and all road fatalities, EU, 2007-2016



Source: CARE database, data available in May 2018

The total number of fatalities in the EU countries was 6% less in 2009 than in 2008, whereas the number of single vehicle accident fatalities was 8% less. The latter number, however, fell by 16% in 2010, whereas the fatality total fell again by 10%.

About 95.000 persons - one third of all road fatalities - were killed in single vehicle accidents in the EU within the decade 2007-2016.

Table 1 provides an overview of the evolution of single vehicle accident fatalities for the decade 2007-2016. Within the decade, the most significant reduction in single vehicle fatalities occurred in Estonia (71%) and Croatia (63%).

Table 1: Number of single vehicle accident fatalities by country, 2007-2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BE	464	420	421	355	351	320	309	269	270	242
BG	-	382	358	281	253	212	227	227	228	-
CZ	427	326	321	247	246	244	207	220	237	192
DK	89	112	90	75	69	50	56	52	55	57
DE	1.566	1.390	1.372	1.119	1.267	1.102	987	995	958	895
EE	79	36	32	22	29	20	26	28	23	-
IE	-	-	-	-	-	-	-	-	-	-
EL	613	571	551	499	446	431	381	308	336	322
ES	1.327	1.129	1.009	842	713	722	575	606	589	622
FR	1.709	1.578	1.707	1.541	1.462	1.401	1.166	1.231	1.336	1.241
HR	239	226	222	158	175	157	128	96	114	88
IT	1.445	1.295	1.261	1.212	1.168	1.145	1.092	954	1.034	957
CY	-	-	-	-	-	-	-	-	-	-
LV	99	119	83	72	54	45	49	68	62	46
LT	-	-	-	-	-	-	65	70	59	-
LU	19	14	19	18	12	17	17	14	17	17
HU	294	244	228	133	158	124	130	126	153	135
MT	5	1	5	7	-	-	-	-	2	2
NL	154	244	226	176	167	180	148	151	184	183
AT	243	252	239	195	190	187	148	156	167	152
PL	1.484	1.451	1.193	913	1.046	906	857	737	670	729
PT	381	365	229	368	334	301	233	245	210	231
RO	712	885	761	600	538	570	472	469	546	503
SI	65	43	36	31	30	39	30	21	29	29
SK	175	165	114	89	-	-	-	-	-	-
FI	116	124	109	81	99	66	95	84	84	103
SE	169	153	149	101	107	97	98	85	110	104
UK	754	655	619	444	483	422	433	423	395	406
EU	12.835	12.014	11.241	9.490	9.404	8.765	7.866	7.567	7.809	7.507
Yearly change		-6%	-6%	-16%	-1%	-7%	-10%	-4%	3%	-4%
IS	7	6	8	3	5	6	7	0	9	6
NO	76	107	78	74	61	49	75	54	52	58

Source: CARE database, data available in May 2018

Totals for EU include latest available data (Data for Ireland, Lithuania and Slovakia not included in totals)

Within the decade 2007-2016, the most significant reduction in single vehicle accident fatalities was recorded in Estonia (71%) and Croatia (63%).

Table 2 provides the percentage of fatalities that occurred in single vehicle accidents in the EU for the decade 2007-2016. In 2016, this was 30% in the EU countries.

Table 2: Percentage of single vehicle accident fatalities of all road fatalities by country, 2007-2016

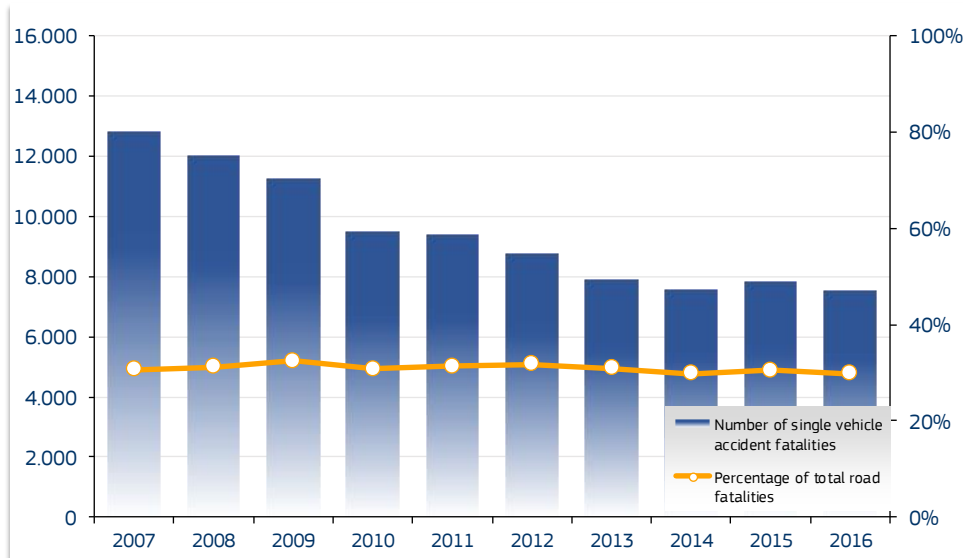
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BE	43%	44%	45%	42%	41%	42%	43%	37%	37%	38%
BG	-	36%	40%	36%	39%	35%	38%	34%	32%	-
CZ	35%	30%	36%	31%	32%	33%	32%	32%	32%	31%
DK	22%	28%	30%	29%	31%	30%	29%	29%	31%	27%
DE	32%	31%	33%	31%	32%	31%	30%	29%	28%	28%
EE	40%	27%	33%	28%	29%	23%	32%	36%	34%	-
IE	-	-	-	-	-	-	-	-	-	-
EL	38%	37%	38%	40%	39%	44%	43%	39%	42%	39%
ES	35%	36%	37%	34%	35%	38%	34%	36%	35%	34%
FR	37%	37%	40%	39%	37%	38%	36%	36%	39%	36%
HR	39%	34%	41%	37%	42%	40%	35%	31%	33%	29%
IT	28%	27%	30%	29%	30%	31%	32%	28%	30%	29%
CY	-	-	-	-	-	-	-	-	-	-
LV	24%	38%	33%	33%	30%	25%	27%	32%	33%	29%
LT	-	-	-	-	-	-	-	26%	24%	-
LU	41%	40%	40%	56%	36%	50%	38%	40%	47%	53%
HU	24%	24%	28%	18%	25%	20%	22%	20%	24%	22%
MT	42%	11%	33%	54%	-	-	-	-	18%	9%
NL	22%	36%	35%	33%	31%	32%	31%	32%	35%	34%
AT	35%	37%	38%	35%	36%	35%	33%	36%	35%	35%
PL	27%	27%	26%	23%	25%	25%	26%	23%	23%	24%
PT	39%	41%	27%	39%	37%	42%	37%	38%	35%	41%
RO	25%	29%	27%	25%	27%	28%	25%	26%	29%	26%
SI	22%	20%	21%	22%	21%	30%	24%	19%	24%	22%
SK	26%	27%	30%	24%	-	-	-	-	-	-
FI	31%	36%	39%	30%	34%	26%	37%	37%	32%	40%
SE	36%	39%	42%	38%	34%	34%	38%	31%	42%	39%
UK	25%	25%	26%	23%	25%	23%	24%	23%	22%	22%
EU	31%	31%	32%	31%	31%	32%	31%	30%	30%	30%
IS	47%	50%	47%	38%	42%	67%	47%	0%	56%	33%
NO	3%	2%	4%	1%	3%	4%	4%	0%	8%	4%

Source: CARE database, data available in May 2018

Even though, in 2016, single vehicle accident fatalities constituted on average almost one third of the overall fatalities in the EU, the percentage was only 22% in Hungary, Slovenia and the UK, while it was highest in Portugal (41%). Figure 2 shows that the number of single vehicle accident fatalities in the EU reduced gradually from 2007 to 2016. The percentage of all fatalities that occurred in single vehicle accidents varied within a narrow range.

The percentage of EU fatalities occurring in single vehicle accidents in 2016 was 30%.

Figure 2: Number of single vehicle accident fatalities and percentage of all road fatalities, EU, 2007-2016



Source: CARE database, data available in May 2018

Although the number of single vehicle accident fatalities fell within the decade examined in the EU, the percentage of all fatalities that occurred in single vehicle accidents varied within a narrow range.

Table 3: Single vehicle accident fatality rates per million population by country, 2007-2016

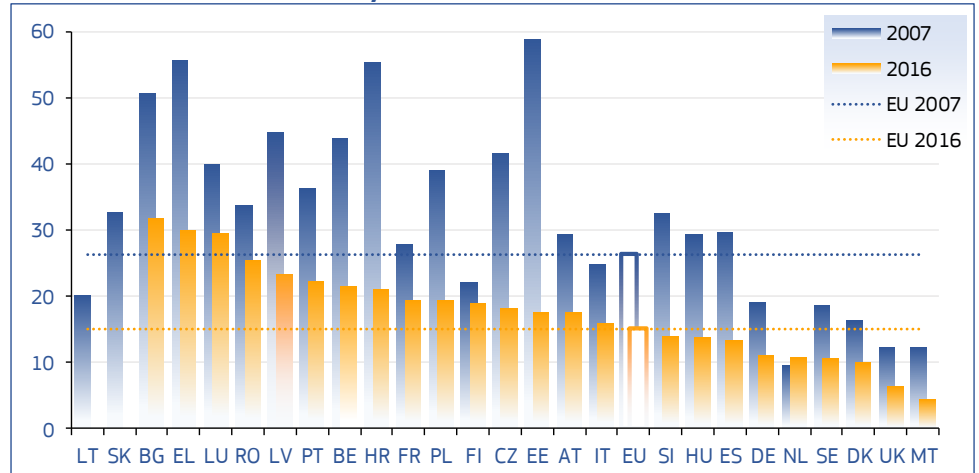
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
BE	43,8	39,4	39,2	32,7	31,9	28,9	27,7	24,1	24,0	21,4
BG	-	50,8	47,9	37,9	34,3	28,9	31,2	31,3	31,7	-
CZ	41,6	31,5	30,8	23,6	23,5	23,2	19,7	20,9	22,5	18,2
DK	16,3	20,5	16,3	13,6	12,4	9,0	10,0	9,2	9,7	10,0
DE	19,0	16,9	16,7	13,7	15,8	13,7	12,3	12,3	11,8	10,9
EE	58,8	26,9	24,0	16,5	21,8	15,1	19,7	21,3	17,5	-
IE	-	-	-	-	-	-	-	-	-	-
EL	55,5	51,6	49,7	44,9	40,1	38,9	34,6	28,2	30,9	29,9
ES	29,6	24,7	21,8	18,1	15,3	15,4	12,3	13,0	12,7	13,4
FR	27,7	25,4	27,3	24,6	23,2	22,1	18,3	19,2	20,8	19,3
HR	55,4	52,4	51,5	36,7	40,8	36,7	30,0	22,6	27,0	21,0
IT	24,8	22,1	21,4	20,5	19,7	19,3	18,3	15,7	17,0	15,8
CY	-	-	-	-	-	-	-	-	-	-
LV	44,8	54,3	38,4	34,0	26,0	22,0	24,2	34,0	31,2	23,4
LT	-	-	-	-	-	-	21,9	23,8	20,2	-
LU	39,9	28,9	38,5	35,9	23,4	32,4	31,7	25,5	30,2	29,5
HU	29,2	24,3	22,7	13,3	15,8	12,5	13,1	12,8	15,5	13,7
MT	12,3	2,5	12,2	16,9	-	-	-	-	4,5	4,4
NL	9,4	14,9	13,7	10,6	10,0	10,8	8,8	9,0	10,9	10,8
AT	29,3	30,3	28,7	23,3	22,7	22,2	17,5	18,3	19,5	17,5
PL	38,9	38,1	31,3	24,0	27,5	23,8	22,5	19,4	17,6	19,2
PT	36,2	34,6	21,7	34,8	31,6	28,6	22,2	23,5	20,2	22,3
RO	33,7	42,9	37,2	29,6	26,6	28,4	23,6	23,5	27,5	25,5
SI	32,3	21,4	17,7	15,1	14,6	19,0	14,6	10,2	14,1	14,0
SK	32,6	30,7	21,2	16,5	-	-	-	-	-	-
FI	22,0	23,4	20,5	15,1	18,4	12,2	17,5	15,4	15,4	18,8
SE	18,5	16,7	16,1	10,8	11,4	10,2	10,3	8,8	11,3	10,6
UK	12,3	10,6	10,0	7,1	7,7	6,6	6,8	6,6	6,1	6,2
EU	26,3	24,5	22,9	19,3	19,1	17,8	15,9	15,2	15,7	15,0
IS	22,8	19,0	25,0	9,4	15,7	18,8	21,7	0,0	27,3	18,0
NO	16,2	22,6	16,3	15,2	12,4	9,8	14,8	10,6	10,1	11,1

Source: CARE database (EUROSTAT for population data), data available in May 2018

In 2016, the single vehicle fatality rate in Bulgaria was about twice the EU average.

The most significant reductions of the single vehicle accident fatality rate over the decade 2007-2016 occurred in Estonia (70%) and Croatia (62%).

Figure 3: Single vehicle accident fatality rates per million population, EU, 2007 and 2016 or latest available year



Source: CARE database (EUROSTAT for population data), data available in May 2018

Figure 3 shows that the average fatality rate decreased by 43% between 2007 and 2016 in the EU countries. Bulgaria had the highest single vehicle fatality rate (32) in 2016, which is about twice the average EU rate, whereas the United Kingdom had the lowest rate (6).

The most significant reductions of the single vehicle accident fatality rate over the decade 2007-2016 occurred in Estonia (70%) and Croatia (62%), while Bulgaria and Greece had a fatality rate in 2016 that was higher than the EU average for 2007.

In the following tables and figures, the CARE data for 2016 are analysed in greater detail. It should be noted that the latest available data are used, meaning 2010 data for SK, 2014 data for IE and 2015 data for BG, EE and LT.

Age group and Gender

Table 4: Distribution of single and non-single vehicle accident fatalities of drivers by country and age group, 2016 or latest available year

	Single vehicle accident driver fatalities						Non-single vehicle accident driver fatalities					
	<15	15-17	18-24	25-49	50-64	65+	<15	15-17	18-24	25-49	50-64	65+
BE	0%	0%	16%	49%	18%	17%	2%	1%	7%	45%	21%	23%
BG	0%	0%	19%	58%	15%	7%	1%	1%	13%	44%	25%	17%
CZ	0%	1%	15%	45%	19%	19%	0%	0%	10%	40%	26%	23%
DK	0%	0%	29%	35%	17%	19%	1%	1%	12%	36%	18%	33%
DE	0%	1%	19%	37%	21%	21%	0%	2%	11%	28%	26%	32%
EE	0%	0%	7%	60%	20%	13%	0%	8%	8%	62%	8%	15%
IE	-	-	-	-	-	-	0%	3%	17%	45%	16%	19%
EL	0%	2%	12%	45%	24%	17%	1%	2%	13%	43%	17%	24%
ES	0%	1%	10%	46%	26%	17%	0%	1%	8%	47%	24%	20%
FR	0%	1%	20%	43%	20%	15%	1%	2%	16%	37%	20%	24%
HR	0%	0%	32%	35%	18%	14%	1%	0%	7%	37%	31%	24%
IT	0%	1%	14%	41%	21%	23%	0%	2%	9%	38%	22%	29%
CY	-	-	-	-	-	-	4%	15%	19%	31%	19%	12%
LV	0%	0%	16%	42%	29%	13%	0%	0%	13%	38%	30%	20%
LT	0%	0%	17%	60%	17%	7%	1%	1%	8%	38%	24%	28%
LU	0%	0%	0%	71%	7%	21%	0%	0%	33%	33%	0%	33%
HU	0%	2%	7%	49%	19%	22%	0%	1%	9%	38%	29%	22%
MT	0%	0%	0%	100%	0%	0%	0%	0%	0%	90%	10%	0%
NL	0%	1%	23%	34%	21%	21%	2%	1%	8%	24%	19%	45%
AT	0%	5%	23%	31%	19%	21%	1%	2%	9%	37%	23%	29%
PL	0%	1%	24%	49%	18%	8%	2%	2%	15%	42%	21%	19%
PT	0%	1%	12%	34%	24%	28%	1%	2%	9%	34%	27%	26%
RO	0%	3%	18%	47%	20%	12%	1%	2%	8%	42%	26%	21%
SI	0%	0%	14%	55%	21%	10%	2%	5%	16%	33%	30%	15%
SK	0%	0%	30%	48%	17%	4%	1%	1%	13%	56%	17%	11%
FI	0%	1%	13%	43%	22%	22%	1%	3%	14%	35%	16%	31%
SE	0%	4%	11%	41%	20%	24%	1%	0%	8%	30%	25%	35%
UK	0%	2%	19%	50%	14%	15%	1%	2%	15%	40%	21%	21%
EU	0%	1%	18%	44%	20%	17%	1%	2%	12%	38%	23%	25%
IS	0%	20%	0%	40%	20%	20%	0%	0%	0%	25%	38%	38%
NO	0%	4%	16%	33%	35%	12%	4%	0%	16%	32%	18%	30%

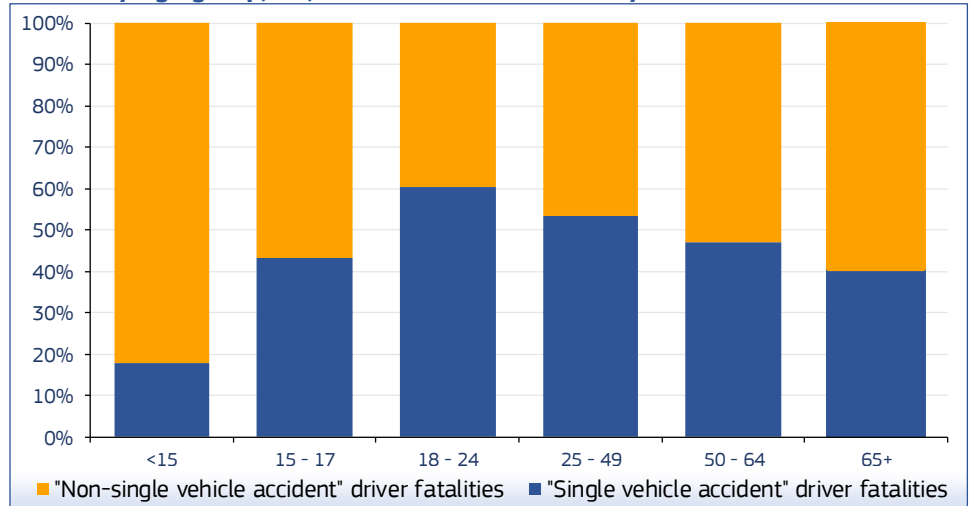
Source: CARE database, data available in May 2018

The percentage of young drivers (18-24 years old) killed in single vehicle accidents is more than 30% higher than the respective ratio for non-single vehicle accidents.

Table 4 shows that 44% of the drivers killed in single vehicle accidents are aged 25-49 years old. Moreover, the ratio of young drivers (18-24 years old) killed in single vehicle accidents is more than 30% higher than the respective ratio for the non-single vehicle accidents (18% compared with 12%).

Figure 4 shows the distribution of driver fatalities in single and non-single vehicle accidents by age group. About 60% of killed drivers aged 18-24 years old were killed in single vehicle accidents.

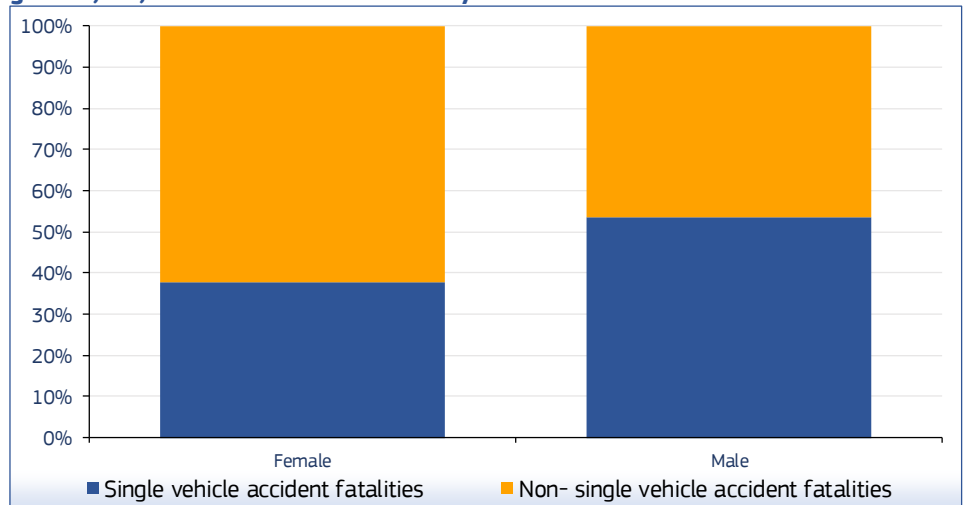
Figure 4: Distribution of single and non-single vehicle accident fatalities of drivers by age group, EU, 2016 or latest available year



Source: CARE database, data available in May 2018

Males account for 81% of the single vehicle accident fatalities in the EU countries in 2016. Figure 5 indicates that almost two fifths of all female fatalities occurred in single vehicle accidents, compared with over half of male fatalities.

Figure 5: Distribution of single and non-single vehicle accident fatalities by gender, EU, 2016 or latest available year

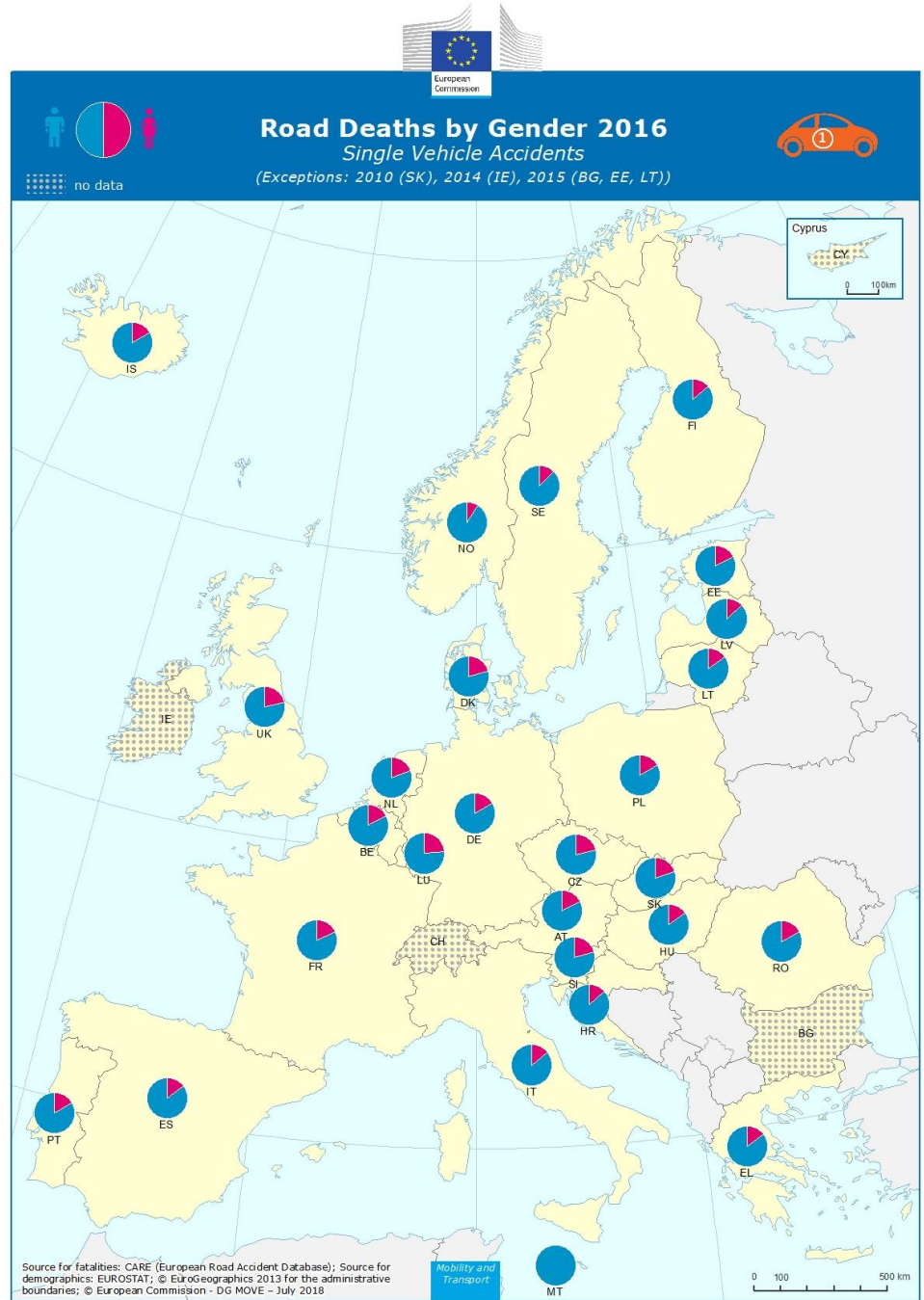


Source: CARE database, data available in May 2018

 Almost two fifths of all female fatalities occurred in single vehicle accidents, compared with over half of male fatalities.

Traffic Safety Basic Facts 2018–Single Vehicle Accidents

Map 1: Distribution of single vehicle accident fatalities by country and gender, 2016 or latest available year



Mode of transport

Table 5 presents the distribution of single vehicle accident fatalities by mode of transport in 2016. In the EU countries, the percentage of fatalities is highest for car/taxis (66%), with the two-wheeler fatalities (mopeds, motorcycles and pedal cycles) accounting for 23% in 2016.

Table 5: Total number and distribution of single vehicle accident fatalities by country and mode of transport, 2016 or latest available year

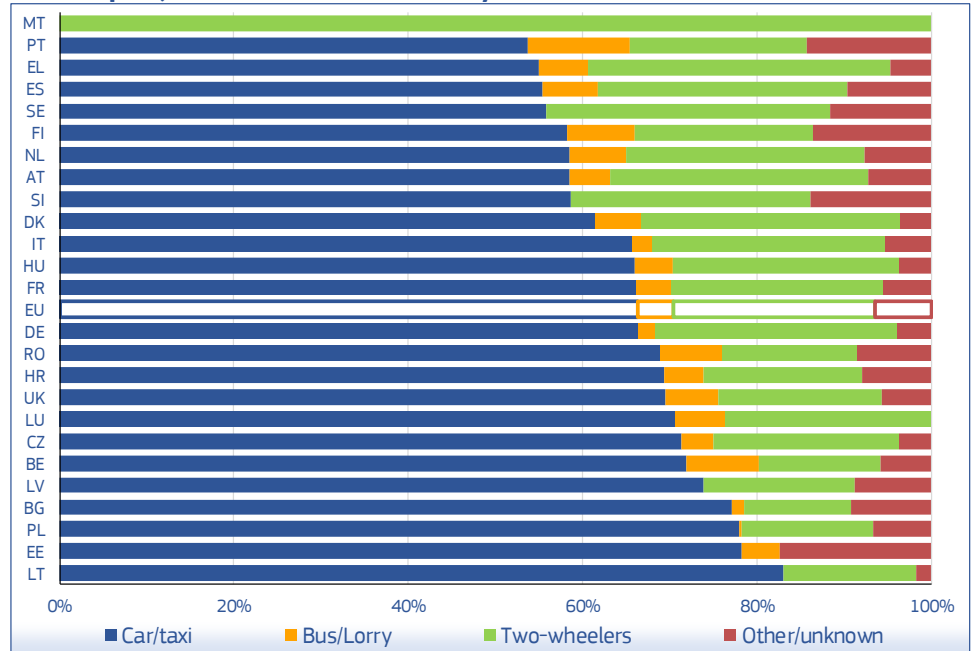
	Car/Taxi	Bus/Lorry	Two wheelers	Other/unknown	Total
BE	72%	8%	14%	6%	242
BG	77%	1%	12%	9%	228
CZ	71%	4%	21%	4%	192
DK	61%	5%	30%	4%	57
DE	66%	2%	28%	4%	895
EE	78%	4%	0%	17%	23
IE	-	-	-	-	-
EL	55%	6%	35%	5%	322
ES	55%	6%	29%	10%	622
FR	66%	4%	24%	6%	1.241
HR	69%	5%	18%	8%	88
IT	66%	2%	27%	5%	957
CY	-	-	-	-	-
LV	74%	0%	17%	9%	46
LT	83%	0%	15%	2%	59
LU	71%	6%	24%	0%	17
HU	66%	4%	26%	4%	135
MT	0%	0%	100%	0%	2
NL	58%	7%	27%	8%	183
AT	59%	5%	30%	7%	152
PL	78%	0%	15%	7%	729
PT	54%	12%	20%	14%	231
RO	69%	7%	16%	9%	503
SI	59%	0%	28%	14%	29
SK	84%	0%	12%	3%	89
FI	58%	8%	20%	14%	103
SE	56%	0%	33%	12%	104
UK	69%	6%	19%	6%	406
EU	66%	4%	23%	7%	7.655
IS	83%	0%	17%	0%	6
NO	41%	0%	40%	19%	58

Source: CARE database, data available in May 2018

Figure 6 shows that in 2016, the percentage of car and taxi fatalities in single vehicle accidents among the EU countries was highest in Lithuania (83%). On the other hand, the percentage was lowest in Portugal (54%).

In the EU, the highest percentage of fatalities was recorded in car/taxis (66%) with two wheelers' fatalities accounting for 23% in 2016.

Figure 6: Distribution of single vehicle accident fatalities by country and mode of transport, 2016 or latest available year



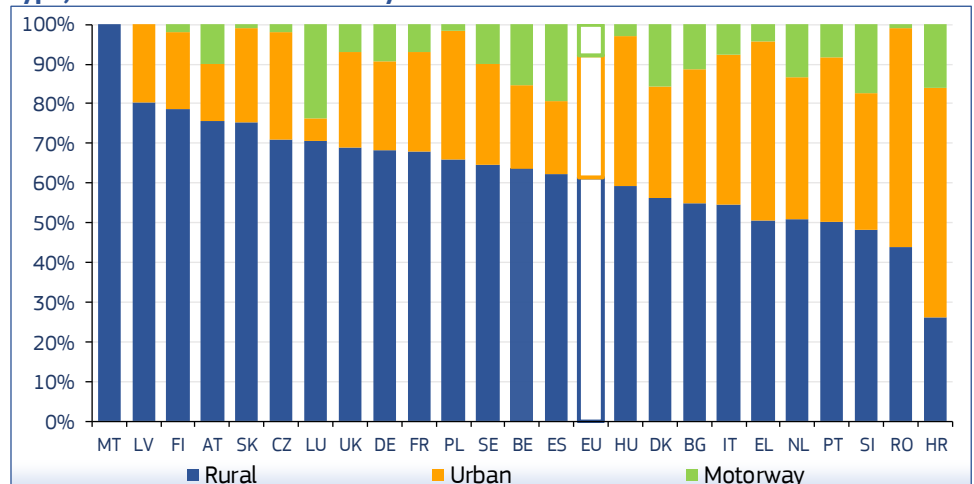
Source: CARE database, data available in May 2018

As far as two wheelers' fatalities (motorcycle, moped or pedal cycles) are concerned, the lowest proportion was recorded in Bulgaria (12%) and Belgium (14%) as shown in Figure 6. Greece had the highest proportion of two wheelers' fatalities (35%) among the EU countries. Portugal had the highest percentage (12%) of fatalities in lorries and buses among the EU countries.

Area and Road type

In Figure 7 and Table 6 the distribution of fatalities in single vehicle accidents by area and road type in the EU countries is presented. In the EU, 61% of the single vehicle accident fatalities occurred outside urban areas, more than twice the respective percentage inside urban areas (30%).

Figure 7: Distribution of single vehicle accident fatalities by country and area type, 2016 or latest available year



Source: CARE database, data available in May 2018

In the EU, in 2016, the highest percentage of car and taxi fatalities in single vehicle accidents occurred in Lithuania (83%).

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

Croatia and Romania had the highest percentages of single vehicle accident fatalities inside urban areas.

Table 6: Total number and distribution of single vehicle accident fatalities by country, area and road type, 2016 or latest available year

	Motorway	Non-motorway		Unknown	Total
		Rural	Urban		
BE	15%	63%	21%	1%	242
BG	11%	55%	34%	0%	228
CZ	2%	71%	27%	0%	192
DK	16%	56%	28%	0%	57
DE	9%	68%	22%	0%	895
EE	0%	0%	0%	100%	23
IE	-	-	-	-	-
EL	4%	51%	45%	0%	322
ES	19%	62%	18%	0%	622
FR	7%	68%	25%	0%	1.241
HR	16%	26%	58%	0%	88
IT	8%	55%	38%	0%	957
CY	-	-	-	-	-
LV	0%	80%	20%	0%	46
LT	0%	0%	0%	100%	59
LU	24%	71%	6%	0%	17
HU	3%	59%	38%	0%	135
MT	0%	100%	0%	0%	2
NL	13%	50%	36%	1%	183
AT	10%	76%	14%	0%	152
PL	2%	66%	33%	0%	729
PT	8%	50%	42%	0%	231
RO	1%	44%	55%	0%	503
SI	17%	48%	34%	0%	29
SK	1%	75%	24%	0%	89
FI	2%	79%	19%	0%	103
SE	10%	62%	24%	5%	104
UK	7%	69%	24%	0%	406
EU	8%	61%	30%	1%	7.655
IS	0%	83%	17%	0%	6
NO	0%	81%	17%	2%	58

Source: CARE database, data available in May 2018

Figure 7 shows that Croatia and Romania had the highest percentages of single vehicle accident fatalities inside urban areas (58% and 55% respectively), whereas Austria had the lowest percentage (14%) amongst the EU countries in 2016.

Map 2: Distribution of single vehicle accident fatalities by country and area type, 2016 or latest available year

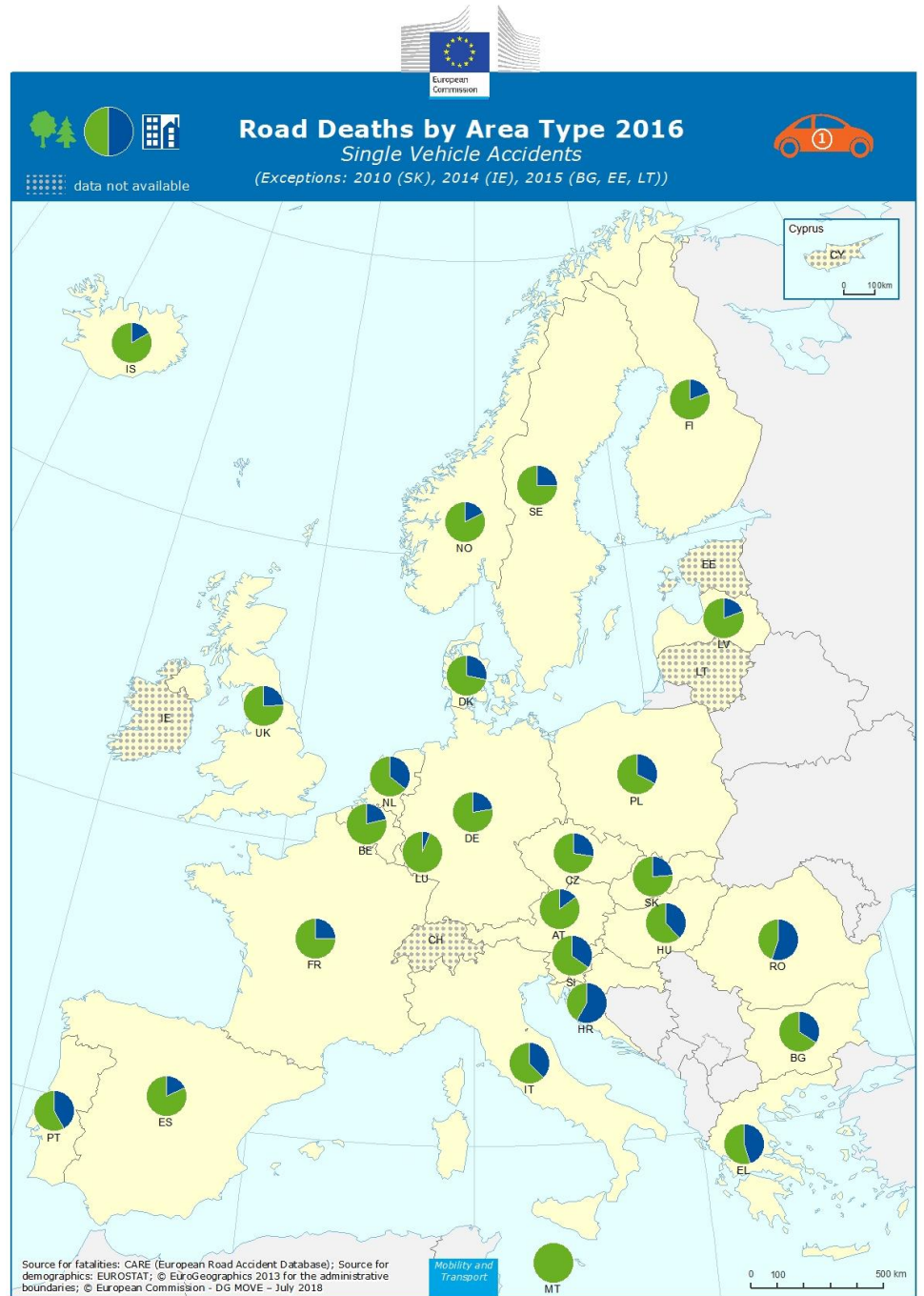


Table 7 shows the percentage of fatalities that occurred in single vehicle accidents by area and road type in 2016. About a quarter of all road fatalities inside urban areas and almost a third of all motorway fatalities occurred in single vehicle accidents.

Table 7: Total number of single vehicle accident fatalities and percentage of all road fatalities by country, area and road type, 2016 or latest available year

	Motorway	Non-motorway		Total
		Rural	Urban	
BE	38%	42%	29%	242
BG	43%	33%	29%	228
CZ	10%	38%	24%	192
DK	36%	27%	24%	57
DE	21%	33%	21%	895
EE	-	-	-	23
IE	0%	0%	0%	0
EL	31%	46%	34%	322
ES	37%	40%	22%	622
FR	32%	39%	31%	1.241
HR	41%	24%	29%	88
IT	26%	34%	25%	957
CY	0%	0%	0%	0
LV	-	29%	30%	46
LT	-	-	-	59
LU	80%	63%	13%	17
HU	11%	23%	23%	135
MT	-	22%	0%	2
NL	31%	38%	32%	183
AT	44%	40%	20%	152
PL	22%	28%	19%	729
PT	50%	52%	32%	231
RO	19%	32%	23%	503
SI	20%	23%	23%	29
SK	7%	34%	13%	89
FI	29%	43%	32%	103
SE	59%	38%	34%	104
UK	32%	24%	16%	406
EU	30%	34%	24%	7.655
IS	-	38%	20%	6
NO	-	44%	37%	58

Source: CARE database, data available in May 2018

A quarter of all road fatalities inside urban areas and almost a third of all motorway fatalities occurred in single vehicle accidents.

Manoeuvre type

Table 8 shows the fatalities that occurred in single vehicle accidents by manoeuvre type inside/outside urban areas in 2016. The vehicle manoeuvre most frequently associated with single vehicle accident fatalities inside urban areas is driving "straight ahead", while "stopped-stopping" is the most frequent manoeuvre for SVA fatalities recorded outside urban areas. It is noted though that a high percentage of the single vehicle accident fatalities occurring in both areas by manoeuvre type are not defined.

Table 8: Total number and distribution of single vehicle accident fatalities by country, area and manoeuvre type, 2016 or latest available year

	Inside urban areas					Outside urban areas				
	overtaking	stopped/ stopping	straight ahead	turning/ u turn	other/ not defined	overtaking	stopped stopping	straight ahead	turning/ u turn	other/ not defined
BE	4%	0%	12%	2%	82%	2%	66%	4%	1%	28%
BG	0%	0%	0%	0%	100%	0%	83%	0%	0%	17%
CZ	0%	0%	0%	0%	100%	0%	97%	0%	0%	3%
DK	0%	0%	100%	0%	0%	0%	5%	22%	0%	73%
DE	0%	0%	0%	0%	100%	0%	88%	0%	0%	12%
EE	-	-	-	-	-	-	-	-	-	-
IE	-	-	-	-	-	-	-	-	-	-
EL	0%	1%	47%	18%	34%	0%	58%	5%	4%	34%
ES	2%	2%	48%	3%	46%	1%	9%	16%	1%	73%
FR	3%	0%	54%	1%	42%	0%	13%	5%	0%	81%
HR	0%	0%	0%	0%	100%	0%	62%	0%	0%	38%
IT	0%	0%	0%	0%	100%	0%	88%	0%	0%	12%
CY	-	-	-	-	-	-	-	-	-	-
LV	0%	0%	0%	0%	100%	0%	100%	0%	0%	0%
LT	-	-	-	-	-	-	-	-	-	-
LU	0%	0%	0%	0%	100%	0%	0%	23%	8%	69%
HU	0%	0%	90%	4%	6%	1%	0%	5%	2%	91%
MT	-	-	-	-	-	0%	100%	0%	0%	0%
NL	0%	0%	0%	0%	100%	0%	79%	0%	0%	21%
AT	5%	0%	14%	9%	73%	0%	74%	0%	0%	26%
PL	3%	0%	0%	1%	96%	0%	97%	0%	0%	2%
PT	0%	2%	94%	1%	3%	2%	1%	12%	0%	84%
RO	0%	0%	0%	0%	100%	0%	98%	0%	0%	2%
SI	0%	0%	0%	0%	100%	0%	74%	0%	0%	26%
SK	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
FI	0%	0%	0%	0%	100%	0%	98%	0%	0%	2%
SE	0%	0%	0%	0%	100%	0%	86%	0%	0%	14%
UK	3%	1%	66%	4%	26%	1%	1%	12%	2%	85%
EU	1%	0%	22%	2%	74%	0%	57%	4%	0%	39%
IS	0%	0%	0%	0%	100%	0%	0%	80%	0%	20%
NO	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%

Source: CARE database, data available in May 2018

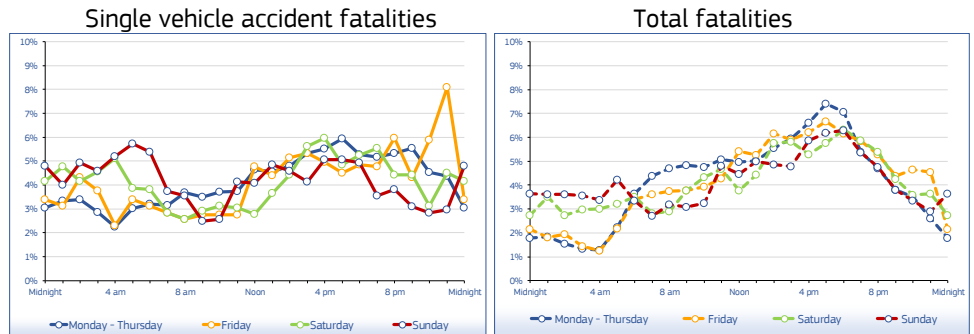
The vehicle manoeuvre most frequently associated with single vehicle accident fatalities inside urban areas is driving 'straight ahead'.

The most single vehicle accident fatalities are recorded during the weekend.

Day of the week and Time of the day

Figure 8 shows the number of fatalities that occurred in single vehicle accidents and in total accidents in the EU countries in 2016. 70% of all single vehicle accident fatalities occurred between 6am and 9pm in the EU countries in 2016. Saturday and Sunday are the days of the week when the highest number of single vehicle accident fatalities occurred (19% and 20% respectively). Relatively more fatalities in single vehicle accidents occurred on Sundays between midnight and 7am, while relatively fewer between 8am and 8pm on weekdays in comparison with the total road fatalities.

Figure 8: Number of single vehicle accident fatalities and all road fatalities by day of the week and time of the day, EU, 2016 or latest available year



Source: CARE database, data available in May 2018

Seasonality

Figure 9 displays the percentage of fatalities that occurred in single vehicle accidents per month in the EU countries. 34% of the fatalities in July occurred in single vehicle accidents, while the lowest percentage occurred in November (24%).

Figure 9: Percentage of single vehicle accident fatalities of all road fatalities by month, EU, 2016 or latest available year



Source: CARE database, data available in May 2018

Only 24% of the fatalities recorded in November occurred in single vehicle accidents.

Table 9 shows the percentage of single vehicle accident fatalities through the year, using pair of months for 2016.

Table 9: Total number and distribution of single vehicle accident fatalities by country and month, 2016 or latest available year

	Jan/Feb	Mar/Apr	May/Jun	Jul/Aug	Sep/Oct	Nov/Dec	Total
BE	17%	14%	14%	21%	17%	16%	242
BG	14%	15%	16%	22%	18%	15%	228
CZ	9%	14%	19%	22%	24%	11%	192
DK	9%	11%	12%	23%	23%	23%	57
DE	12%	14%	20%	22%	19%	13%	895
EE	0%	17%	22%	39%	17%	4%	23
IE	-	-	-	-	-	-	-
EL	17%	18%	20%	20%	13%	13%	322
ES	15%	14%	17%	23%	17%	13%	622
FR	12%	16%	17%	22%	19%	15%	1.241
HR	16%	6%	22%	20%	22%	15%	88
IT	13%	18%	17%	22%	17%	13%	957
CY	-	-	-	-	-	-	-
LV	9%	13%	17%	26%	24%	11%	46
LT	17%	15%	14%	22%	22%	10%	59
LU	12%	6%	29%	24%	18%	12%	17
HU	13%	12%	24%	20%	19%	13%	135
MT	0%	0%	0%	0%	50%	50%	2
NL	19%	14%	13%	19%	15%	20%	183
AT	10%	18%	18%	25%	17%	11%	152
PL	12%	15%	20%	23%	18%	13%	729
PT	18%	13%	10%	26%	19%	14%	231
RO	13%	13%	17%	23%	21%	12%	503
SI	7%	24%	28%	17%	14%	10%	29
SK	8%	15%	18%	19%	25%	16%	89
FI	4%	11%	25%	26%	18%	16%	103
SE	14%	6%	22%	27%	15%	15%	104
UK	16%	15%	19%	18%	17%	14%	406
EU	13%	15%	18%	22%	18%	14%	7.655
IS	17%	17%	17%	0%	33%	17%	6
NO	7%	17%	21%	31%	21%	3%	58

Source: CARE database, data available in May 2018

In most of the EU countries, the peak for single vehicle accident fatalities occurred in July/August and May/June, while for the Netherlands the peak occurred in November/December. Fewer single vehicle accident fatalities occurred in January/February (13%) in the EU.

The peak months of single vehicle accident fatalities for most of the countries are July/August.

Lighting Conditions

Table 10 shows the distribution of single vehicle accident fatalities by lighting conditions in 2016. 35% of the single vehicle accident fatalities occurred in darkness, whilst 52% occurred in daylight or twilight.

Table 10: Total number and distribution of single vehicle accident fatalities by country and lighting conditions, 2016 or latest available year

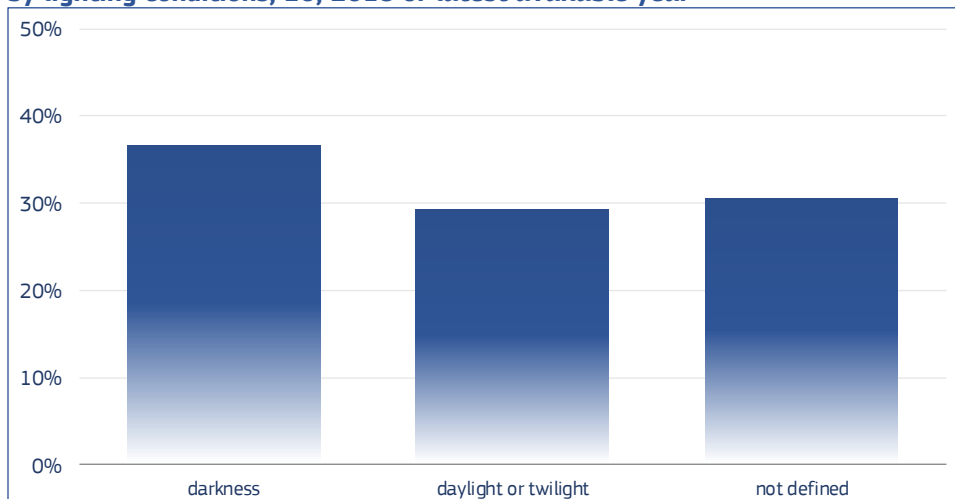
	darkness	daylight/twilight	not defined	Total
BE	50%	44%	7%	242
BG	39%	61%	0%	228
CZ	33%	67%	0%	192
DK	35%	65%	0%	57
DE	36%	64%	0%	895
EE	13%	87%	0%	23
IE	-	-	-	-
EL	49%	51%	0%	322
ES	34%	66%	0%	622
FR	43%	57%	0%	1.241
HR	53%	47%	0%	88
IT	0%	0%	100%	957
CY	-	-	-	-
LV	43%	57%	0%	46
LT	34%	2%	64%	59
LU	35%	65%	0%	17
HU	35%	65%	0%	135
MT	0%	100%	0%	2
NL	45%	55%	0%	183
AT	39%	61%	0%	152
PL	37%	63%	0%	729
PT	42%	58%	0%	231
RO	42%	58%	0%	503
SI	34%	66%	0%	29
SK	42%	57%	1%	89
FI	26%	74%	0%	103
SE	30%	61%	10%	104
UK	45%	55%	0%	406
EU	35%	52%	13%	7.655
IS	33%	50%	17%	6
NO	28%	59%	14%	58

Source: CARE database, data available in May 2018

In 2016, 35% of the single vehicle accident fatalities in the EU occurred in darkness.

In Figure 10, the percentage of single vehicle accident fatalities per total road fatalities by lighting conditions is presented. In 2016, about 37% of the fatalities that occurred in darkness concerned single vehicle accidents.

Figure 10: Percentage of single vehicle accident fatalities of all road fatalities, by lighting conditions, EU, 2016 or latest available year



Source: CARE database, data available in May 2018

Weather conditions

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

Table 11: Total number and distribution of single vehicle accident fatalities by country and weather conditions, 2016 or latest available year

	dry	rain	other	snow	not defined	Total
BE	74%	11%	4%	2%	10%	242
BG	86%	10%	2%	2%	0%	228
CZ	88%	9%	3%	0%	0%	192
DK	81%	12%	2%	0%	5%	57
DE	0%	0%	1%	0%	99%	895
EE	91%	9%	0%	0%	0%	23
IE	-	-	-	-	-	0
EL	88%	8%	4%	0%	0%	322
ES	88%	6%	2%	0%	4%	622
FR	83%	11%	5%	1%	0%	1.241
HR	86%	11%	2%	0%	0%	88
IT	83%	9%	8%	0%	0%	957
CY	-	-	-	-	-	0
LV	76%	15%	0%	9%	0%	46
LT	83%	5%	7%	0%	5%	59
LU	94%	6%	0%	0%	0%	17
HU	89%	10%	1%	0%	0%	135
MT	100%	0%	0%	0%	0%	2
NL	87%	7%	2%	1%	4%	183
AT	86%	11%	3%	1%	0%	152
PL	65%	10%	22%	3%	0%	729
PT	84%	14%	2%	0%	0%	231
RO	89%	9%	1%	1%	0%	503
SI	86%	10%	0%	0%	3%	29
SK	85%	10%	1%	2%	1%	89
FI	76%	4%	4%	2%	15%	103
SE	79%	6%	4%	1%	11%	104
UK	80%	12%	6%	0%	2%	406
EU	73%	9%	5%	1%	13%	7.655
IS	50%	0%	0%	17%	33%	6
NO	57%	16%	16%	0%	12%	58

Source: CARE database, data available in May 2018

The highest percentage of single vehicle accident fatalities is observed in dry weather (73%).

Table 11 shows that the great majority of single vehicle accident fatalities in the EU countries occurred when the weather was dry (73%), while the percentage in snow was least (1%).

Table 12 indicates that in the EU countries, 30% of the fatalities that occurred in snow involved a single vehicle, compared with 28% for rainy weather.

Table 12: Total number of single vehicle accident fatalities and percentage of all road fatalities by country and weather conditions, 2016 or latest available year

	dry	rain	other	snow	not defined	Total
BE	37%	34%	64%	80%	43%	37%
BG	31%	41%	36%	44%	-	31%
CZ	33%	26%	25%	0%	-	33%
DK	27%	32%	11%	-	43%	27%
DE	-	-	16%	-	28%	-
EE	33%	67%	-	-	-	33%
IE	0%	0%	0%	-	-	0%
EL	39%	41%	41%	-	-	39%
ES	36%	29%	33%	33%	21%	36%
FR	36%	33%	39%	30%	-	36%
HR	28%	38%	40%	-	-	28%
IT	29%	31%	26%	100%	-	29%
CY	0%	-	0%	-	-	0%
LV	27%	41%	-	57%	-	27%
LT	25%	14%	24%	-	75%	25%
LU	62%	17%	-	-	-	62%
HU	23%	26%	5%	0%	-	23%
MT	13%	-	-	-	0%	13%
NL	35%	27%	50%	100%	26%	35%
AT	34%	42%	50%	17%	-	34%
PL	26%	16%	25%	28%	-	26%
PT	41%	40%	44%	-	-	41%
RO	26%	27%	13%	32%	-	26%
SI	22%	23%	-	-	-	22%
SK	-	-	-	-	-	-
FI	38%	33%	50%	20%	68%	38%
SE	38%	40%	57%	9%	55%	38%
UK	21%	23%	34%	20%	20%	21%
EU	31%	28%	28%	30%	29%	31%
IS	25%	0%	-	50%	67%	25%
NO	49%	69%	30%	0%	37%	49%

Source: CARE database, data available in May 2018

30% of the fatalities that occurred in snow involved a single vehicle in the EU.

Junction

Table 13 displays the fatalities in single vehicle accidents by junction. It is noticed that the highest number of fatalities is recorded at no junction areas (corresponding to 92% of the single vehicle accident fatalities in the EU countries).

Table 13: Total number and distribution of single vehicle accident fatalities by country and “junction”, 2016 or latest available year

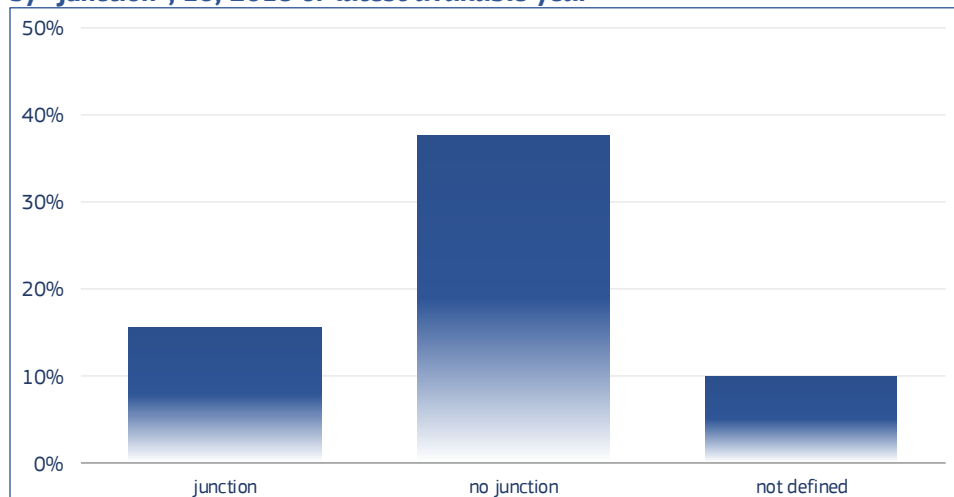
	junction	no junction	not defined	Total
BE	5%	91%	4%	242
BG	0%	99%	1%	228
CZ	6%	94%	0%	192
DK	7%	93%	0%	57
DE	0%	94%	6%	895
EE	26%	0%	74%	23
IE	-	-	-	-
EL	0%	97%	3%	322
ES	13%	87%	0%	621
FR	6%	94%	0%	1.241
HR	10%	90%	0%	88
IT	9%	91%	0%	957
CY	-	-	-	-
LV	4%	96%	0%	46
LT	0%	95%	5%	59
LU	12%	88%	0%	17
HU	4%	96%	0%	135
MT	0%	100%	0%	2
NL	11%	87%	2%	183
AT	1%	99%	0%	152
PL	4%	96%	0%	729
PT	6%	93%	1%	231
RO	6%	94%	0%	503
SI	0%	100%	0%	29
SK	2%	97%	1%	89
FI	0%	92%	8%	103
SE	11%	89%	0%	104
UK	25%	75%	0%	406
EU	7%	92%	1%	7.655
IS	0%	100%	0%	6
NO	0%	0%	100%	58

Source: CARE database, data available in May 2018

Figure 11 presents the percentage of SVA fatalities per total road fatalities at and not at a junction in the EU. 38% of the fatalities that occurred at no junction area involved a single vehicle, compared with 16% at a junction.

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

Figure 11: Percentage of single vehicle accident fatalities of all road fatalities by “junction”, EU, 2016 or latest available year



Source: CARE database, data available in May 2018

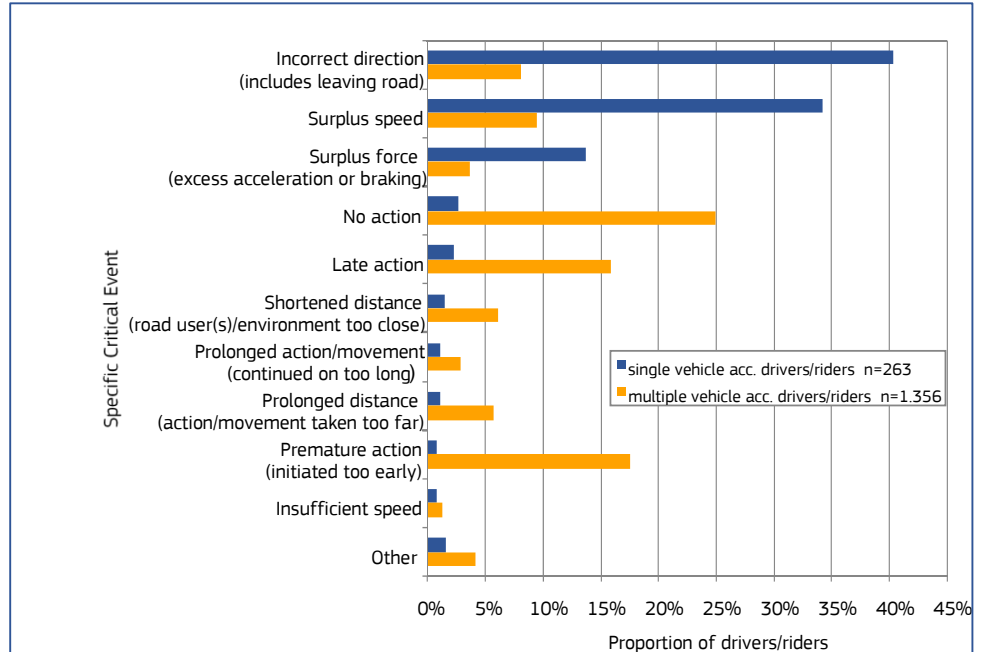
Accident Causation

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 UK. The SafetyNet Accident Causation Database was formed between 2005 and 2008, and contains details of 1.006 accidents covering all injury severities. 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).

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



Source: SafetyNet Accident Causation Database 2005 to 2008 / EC
 Date of query: 2010
 N=1.619

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.

10% of the links between causes are observed to be between ‘inadequate plan’ and ‘under the influence of substances’.

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).

Notes

1. Country abbreviations

	Belgium	BE		Italy	IT		Romania	RO
	Bulgaria	BG		Cyprus	CY		Slovenia	SI
	Czech Republic	CZ		Latvia	LV		Slovakia	SK
	Denmark	DK		Lithuania	LT		Finland	FI
	Germany	DE		Luxembourg	LU		Sweden	SE
	Estonia	EE		Hungary	HU		United Kingdom	UK
	Ireland	IE		Malta	MT			
	Greece	EL		Netherlands	NL		Iceland	IS
	Spain	ES		Austria	AT		Liechtenstein	LI
	France	FR		Poland	PL		Norway	NO
	Croatia	HR		Portugal	PT		Switzerland	CH

2. Sources: CARE (Community database on road accidents)

The full glossary of definitions of variables used in this Report is available at:
http://ec.europa.eu/transport/road_safety/pdf/statistics/cadas_glossary.pdf

3. Data available in May 2018.

4. Data refer to 2016 and when not available the latest available data are used (2010 data for SK, 2014 data for IE and 2015 data for BG, EE and LT). Totals and related average percentages for EU also include latest available data.

5. Data for Ireland, Cyprus are not included in the totals. Data for Lithuania and Slovakia are not included in the totals of data comparing the years 2007-2016.

6. At the commenting of the tables and figures, countries with small figures are omitted.

7. This 2018 edition of Traffic Safety Basic Facts updates the previous versions produced within the EU co-funded research projects SafetyNet and DaCoTA.

8. Disclaimer

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9. Please refer to this Report as follows:

European Commission, Traffic Safety Basic Facts on Single Vehicle Accidents, European Commission, Directorate General for Transport, June 2018.

