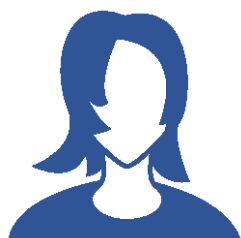




# Traffic Safety Basic Facts 2018



## Young people (18-24)



The number of young people killed in road accidents fell by 55% between 2007 and 2016.

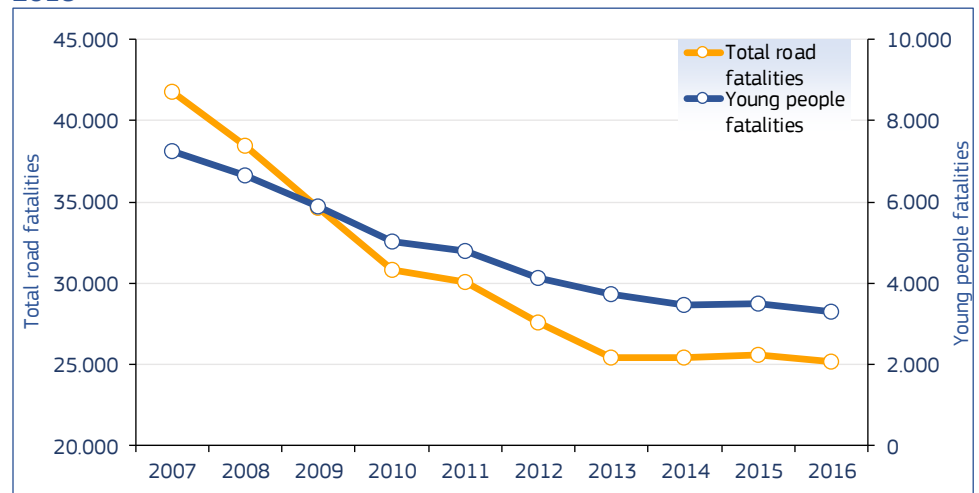
About 48.000 young people were killed in road accidents in the EU between 2007 and 2016, representing 15% of all road accident fatalities in those countries.

## General

“Young people” are defined as those who are between 18 and 24 years old. In general, young people worldwide are far more likely to be victims in road accidents than people in any other age group. About 48.000 people 18-24 years old were killed in road accidents in the EU within the decade 2007-2016. This number represents 15% of all road fatalities in those countries.

The number of young people killed in road accidents in 2016 fell by 55% compared to the respective number in 2007. The total number of fatalities also fell by 41% in the EU countries over the same period.

**Figure 1: Number of young people fatalities and all road fatalities, EU, 2007-2016**



Source: CARE database, data available in May 2018

During the decade 2007-2016, almost all countries experienced significant reductions in young people fatalities. The highest reduction between 2007 and 2016 occurred in Estonia (88%).

**Table 1: Number of young people fatalities by country, 2007-2016**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>BE</b>	215	177	147	171	143	128	119	117	101	87
<b>BG</b>	-	187	157	116	102	95	85	84	97	-
<b>CZ</b>	190	193	133	125	129	96	96	100	103	65
<b>DK</b>	58	69	53	42	35	31	25	22	32	31
<b>DE</b>	971	887	796	690	737	611	493	496	473	435
<b>EE</b>	41	28	21	10	15	17	8	13	5	-
<b>IE</b>	76	75	64	56	39	35	36	28	-	-
<b>EL</b>	280	246	242	186	163	143	112	114	112	101
<b>ES</b>	550	469	357	311	234	175	145	130	144	176
<b>FR</b>	984	956	901	831	813	753	636	582	619	596
<b>HR</b>	135	130	102	58	81	48	58	36	45	42
<b>IT</b>	723	634	579	547	496	423	404	369	379	352
<b>CY</b>	24	17	19	12	14	10	18	12	11	5
<b>LV</b>	44	48	31	35	20	16	14	30	20	18
<b>LT</b>	-	-	-	-	-	-	41	33	29	-
<b>LU</b>	8	8	10	10	8	6	5	5	5	3
<b>HU</b>	139	103	81	73	73	42	50	59	61	47
<b>MT</b>	4	2	2	4	-	-	-	-	2	2
<b>NL</b>	134	107	126	90	86	76	81	69	70	75
<b>AT</b>	135	134	99	102	76	84	56	59	72	56
<b>PL</b>	953	948	833	677	718	585	551	499	446	440
<b>PT</b>	148	113	109	88	105	65	65	53	47	54
<b>RO</b>	402	439	416	307	251	231	220	177	207	195
<b>SI</b>	64	38	30	19	17	19	22	9	16	21
<b>SK</b>	87	92	53	59	-	-	-	-	-	-
<b>FI</b>	75	50	51	48	51	41	36	32	48	41
<b>SE</b>	86	64	60	47	57	41	40	25	35	31
<b>UK</b>	639	542	467	362	341	344	348	335	309	279
<b>EU</b>	<b>7.266</b>	<b>6.664</b>	<b>5.887</b>	<b>5.017</b>	<b>4.804</b>	<b>4.115</b>	<b>3.723</b>	<b>3.455</b>	<b>3.487</b>	<b>3.282</b>
<b>Yearly change</b>		-8,3%	-11,7%	-14,8%	-4,2%	-14,3%	-9,5%	-7,2%	0,9%	-5,9%
<b>IS</b>	2	3	1	3	0	2	2	1	5	0
<b>NO</b>	33	59	46	42	27	20	29	18	31	20
<b>CH</b>	61	44	68	36	41	39	30	38	35	26

Source: CARE database, data available in May 2018

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

The most significant reduction in young people fatalities between 2007 and 2016 occurred in Estonia (88%).

# Traffic Safety Basic Facts 2018 - Young People (18-24)

The number of fatalities amongst young people, expressed as a percentage of all fatalities, has been gradually reducing over the decade 2007-2016, although this is not the case in every country.

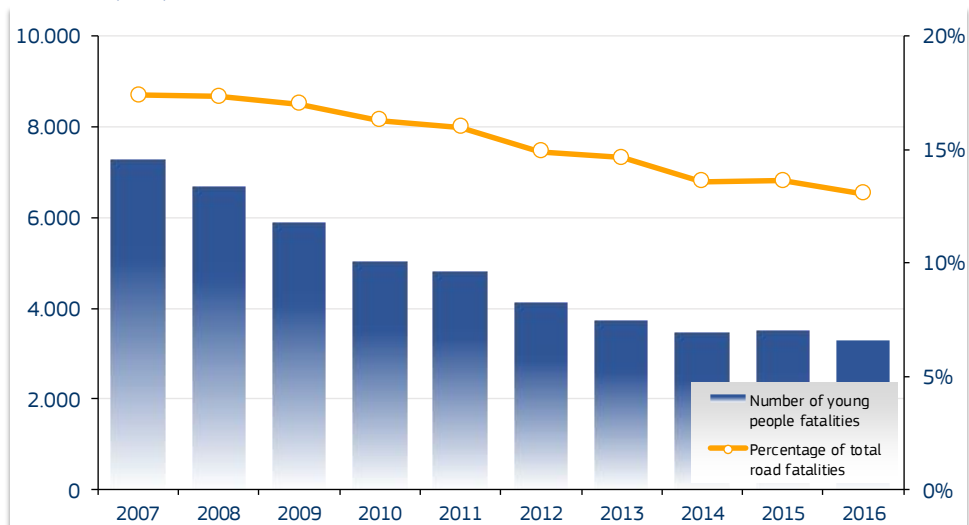
**Table 2: Percentage of young people fatalities of all road fatalities, 2007-2016**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>BE</b>	20%	19%	16%	20%	17%	17%	16%	16%	14%	14%
<b>BG</b>	-	18%	17%	15%	16%	16%	14%	13%	14%	-
<b>CZ</b>	16%	18%	15%	16%	17%	13%	15%	15%	14%	11%
<b>DK</b>	14%	17%	17%	16%	16%	19%	13%	12%	18%	15%
<b>DE</b>	20%	20%	19%	19%	18%	17%	15%	15%	14%	14%
<b>EE</b>	21%	21%	21%	13%	15%	20%	10%	17%	7%	-
<b>IE</b>	22%	27%	27%	26%	21%	22%	19%	15%	-	-
<b>EL</b>	17%	16%	17%	15%	14%	14%	13%	14%	14%	12%
<b>ES</b>	14%	15%	13%	13%	11%	9%	9%	8%	9%	10%
<b>FR</b>	21%	22%	21%	21%	21%	21%	19%	17%	18%	17%
<b>HR</b>	22%	20%	19%	14%	19%	12%	16%	12%	13%	14%
<b>IT</b>	14%	13%	14%	13%	13%	11%	12%	11%	11%	11%
<b>CY</b>	27%	21%	27%	20%	20%	20%	41%	27%	19%	11%
<b>LV</b>	11%	15%	12%	16%	11%	9%	8%	14%	11%	11%
<b>LT</b>	-	-	-	-	-	-	16%	12%	12%	-
<b>LU</b>	17%	23%	21%	31%	24%	18%	11%	14%	14%	9%
<b>HU</b>	11%	10%	10%	10%	11%	7%	8%	9%	9%	8%
<b>MT</b>	33%	22%	13%	31%	-	-	-	-	18%	9%
<b>NL</b>	19%	16%	20%	17%	16%	14%	17%	14%	13%	14%
<b>AT</b>	20%	20%	16%	18%	15%	16%	12%	14%	15%	13%
<b>PL</b>	17%	17%	18%	17%	17%	16%	16%	16%	15%	15%
<b>PT</b>	15%	13%	13%	9%	12%	9%	10%	8%	8%	10%
<b>RO</b>	14%	14%	15%	13%	12%	11%	12%	10%	11%	10%
<b>SI</b>	22%	18%	18%	14%	12%	15%	18%	8%	13%	16%
<b>SK</b>	13%	15%	14%	16%	-	-	-	-	-	-
<b>FI</b>	20%	15%	18%	18%	17%	16%	14%	14%	18%	16%
<b>SE</b>	18%	16%	17%	18%	18%	14%	15%	9%	14%	11%
<b>UK</b>	21%	20%	20%	19%	17%	19%	20%	18%	17%	15%
<b>EU</b>	<b>17%</b>	<b>17%</b>	<b>17%</b>	<b>16%</b>	<b>16%</b>	<b>15%</b>	<b>15%</b>	<b>14%</b>	<b>14%</b>	<b>13%</b>
<b>IS</b>	0%	-1%	-1%	-2%	0%	-2%	-1%	-2%	0%	0%
<b>NO</b>	1%	1%	0%	1%	0%	1%	1%	1%	4%	0%
<b>CH</b>	9%	17%	13%	13%	8%	6%	11%	7%	12%	9%

In 2016, young people fatalities accounted for almost 13% of all road fatalities in the EU.

Source: CARE database, data available in May 2018

**Figure 2: Number of young people fatalities and percentage of all road fatalities, EU, 2007-2016**



Source: CARE database, data available in May 2018

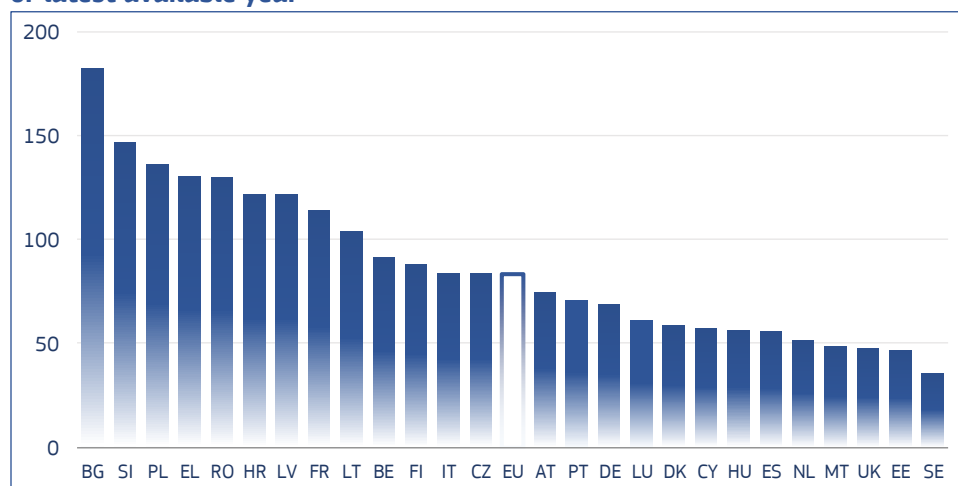
**Table 3: Young people fatality rates per million population by country, 2007-2016**

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>BE</b>	241	197	161	184	150	133	124	122	106	92
<b>BG</b>	-	267	227	171	155	150	140	148	182	-
<b>CZ</b>	202	204	140	132	139	105	108	117	126	84
<b>DK</b>	138	160	118	91	73	63	49	43	61	58
<b>DE</b>	143	130	116	102	113	94	77	79	76	69
<b>EE</b>	293	199	150	73	113	134	67	117	47	-
<b>IE</b>	157	153	133	123	93	87	92	72	-	-
<b>EL</b>	285	259	262	206	184	167	134	140	142	131
<b>ES</b>	145	124	96	87	67	51	43	40	45	56
<b>FR</b>	178	174	163	151	149	140	120	110	118	114
<b>HR</b>	348	340	271	157	224	135	165	104	130	122
<b>IT</b>	174	152	138	130	117	100	95	86	90	84
<b>CY</b>	279	191	207	127	144	101	187	132	123	57
<b>LV</b>	179	196	130	156	94	80	74	172	124	122
<b>LT</b>	-	-	-	-	-	-	-	115	104	-
<b>LU</b>	204	201	245	242	188	134	109	107	104	61
<b>HU</b>	152	114	90	81	82	48	57	68	72	57
<b>MT</b>	99	50	49	97	-	-	-	-	49	49
<b>NL</b>	99	78	90	63	59	52	55	47	48	51
<b>AT</b>	188	187	137	141	104	115	76	80	97	74
<b>PL</b>	215	219	199	171	187	157	152	143	133	136
<b>PT</b>	166	131	130	107	129	80	82	68	61	71
<b>RO</b>	187	220	222	166	138	129	128	108	133	130
<b>SI</b>	342	209	166	107	100	116	139	59	109	147
<b>SK</b>	145	156	91	104	-	-	-	-	-	-
<b>FI</b>	163	109	111	105	110	88	76	68	102	88
<b>SE</b>	111	80	71	54	64	45	44	27	39	36
<b>UK</b>	113	95	81	62	58	58	59	57	52	48
<b>EU</b>	<b>168</b>	<b>155</b>	<b>138</b>	<b>118</b>	<b>115</b>	<b>99</b>	<b>91</b>	<b>86</b>	<b>88</b>	<b>83</b>
<b>IS</b>	65	94	30	92	0	59	59	29	146	0
<b>NO</b>	83	145	109	96	60	43	62	38	65	42
<b>CH</b>	98	70	105	55	61	58	44	56	51	38

Source: CARE database, data available in May 2018

In 2016, Bulgaria had the highest fatality rate (182) for young people, whereas Sweden had the lowest relative rate (36) among the EU countries.

**Figure 3a: Young people fatality rates per million population by country, 2016 or latest available year**



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

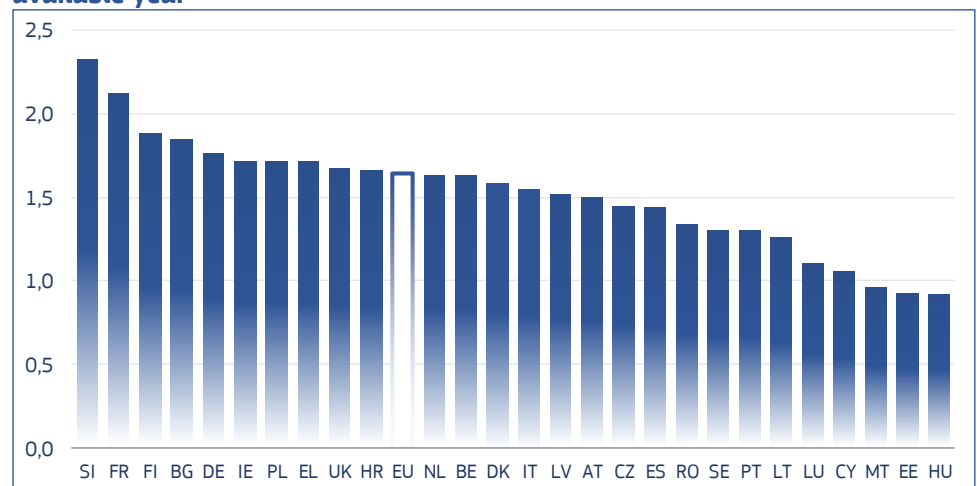
13% of people killed in road accidents in 2016 in the EU countries were aged 18-24. However, only 8% of the population falls within this age group. Thus, the relative fatality rates have been calculated, allowing for a better comparison of the young people fatality rates to the rates of the total population per country.

$$\text{relative fatality rate} = \frac{\text{fatality rate aged between 18-24}}{\text{fatality rate all ages}}$$

$$\text{where fatality rate} = \frac{\text{fatalities}}{\text{population (millions)}}$$

Young people were at 1,6 times the average risk of being killed in a road accident across the EU countries in 2016. As shown in Figure 3b, Slovenia had the highest relative fatality rate (2,3), whereas Hungary had the lowest relative rate (0,9) among the EU countries in 2016.

**Figure 3b: Relative young people fatality rates by country, 2016 or latest available year**



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

Young people are at 1,6 times the risk of being killed in a road accident than the average member of the population across the EU countries as a whole.

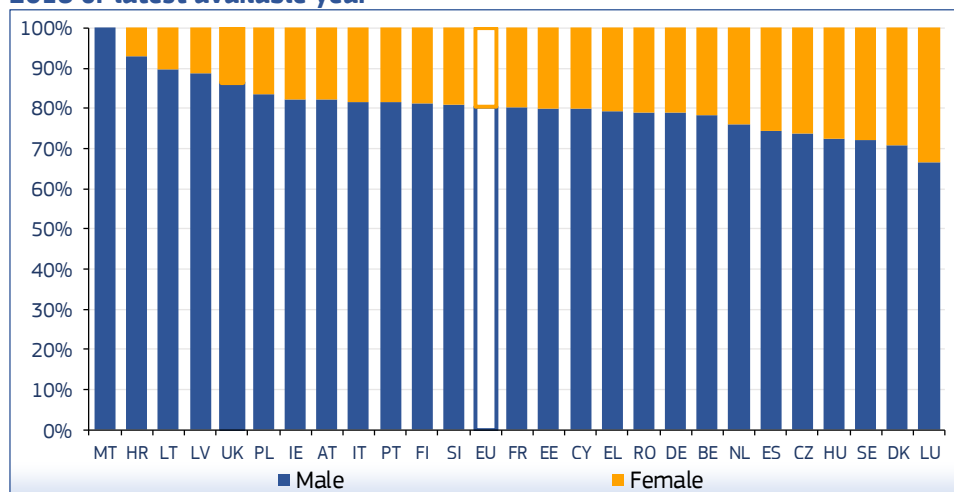
In the following tables and figures, the CARE data for 2016 are analysed in greater detail. It should be noted that the latest available data are used, meaning 2010 data for SK, 2014 data for IE and 2015 data for BG, EE and LT.

## Gender

81% of the fatalities among young people were men. Moreover, males had a significantly higher fatality rate per million population (128), compared to females (33). This can possibly be attributed in part to young men tending to take longer trips than young women and different risk taking behaviour. Figure 4 shows the distribution of young people fatalities by gender in each EU country.

81% of the fatalities among young people were men in the EU in 2016.

**Figure 4: Distribution of young people fatalities by country and gender, EU, 2016 or latest available year**



Source: CARE database, data available in May 2018

## Transport mode and Road user type

**Table 4: Total number and distribution of young people fatalities by country and mode of transport, 2016 or latest available year**

	Car/Taxi	Lorries	PTW	Pedal cycle	Pedestrian	Other	Total
BE	79%	1%	9%	2%	8%	0%	87
BG	72%	0%	21%	1%	2%	4%	97
CZ	86%	3%	9%	0%	2%	0%	65
DK	71%	3%	16%	10%	0%	0%	31
DE	65%	3%	21%	3%	8%	0%	435
EE	80%	0%	0%	0%	20%	0%	5
IE	79%	4%	7%	0%	7%	4%	28
EL	48%	0%	49%	1%	3%	0%	101
ES	52%	3%	26%	2%	9%	9%	176
FR	64%	3%	21%	2%	8%	2%	596
HR	67%	0%	24%	0%	10%	0%	42
IT	63%	1%	27%	3%	5%	2%	352
CY	40%	20%	40%	0%	0%	0%	5
LV	67%	0%	22%	0%	11%	0%	18
LT	61%	0%	14%	0%	18%	7%	29
LU	67%	0%	0%	0%	33%	0%	3
HU	55%	0%	17%	11%	15%	2%	47
MT	0%	0%	0%	0%	100%	0%	2
NL	66%	4%	18%	11%	1%	0%	75
AT	70%	2%	20%	2%	5%	2%	56
PL	69%	0%	18%	3%	7%	3%	440
PT	67%	4%	19%	2%	7%	2%	54
RO	75%	2%	8%	2%	11%	3%	195
SI	50%	0%	31%	6%	13%	0%	21
SK	69%	0%	12%	2%	15%	2%	59
FI	83%	5%	5%	0%	7%	0%	41
SE	67%	0%	10%	10%	3%	10%	31
UK	60%	1%	21%	3%	14%	1%	279
EU	65%	2%	20%	3%	8%	2%	3.370
IS	-	-	-	-	-	-	0
NO	80%	0%	10%	0%	0%	10%	20
CH	46%	0%	31%	0%	19%	4%	26

Source: CARE database, data available in May 2018

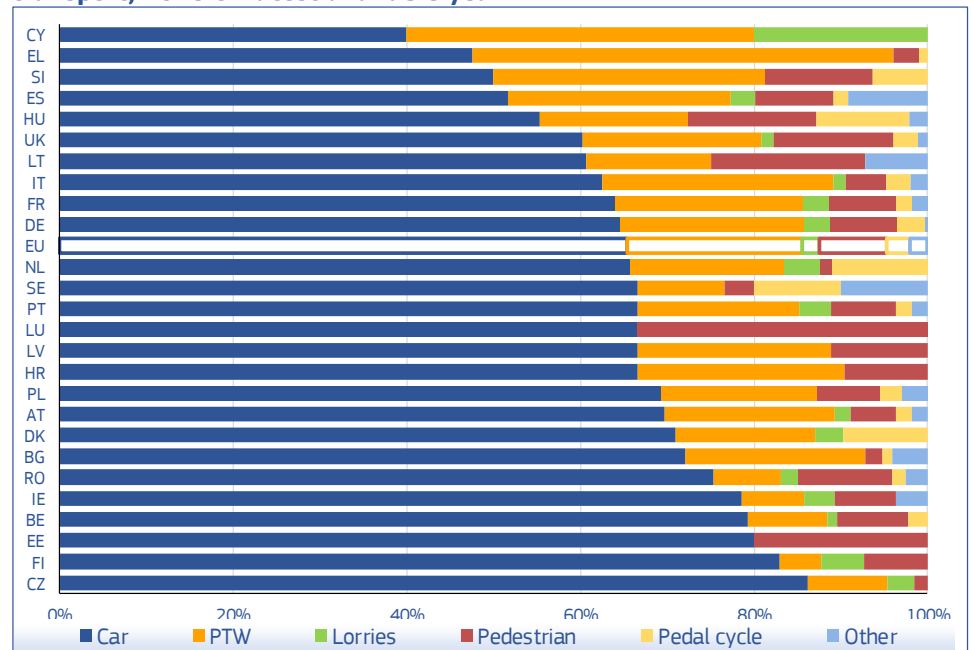


# Traffic Safety Basic Facts 2018 - Young People (18-24)

Almost two-thirds of fatalities of young people across the EU countries were travelling by car or taxi, whilst mopeds and motorcycles accounted for 20% of young people fatalities.

Figure 5 shows that the highest proportion of car occupant fatalities in 2016 were recorded in the Czech Republic (86%) and Finland (83%), while the lowest proportion occurred in Greece (48%).

**Figure 5: Distribution of young people fatalities by country and mode of transport, 2016 or latest available year**



Source: CARE database, data available in May 2018

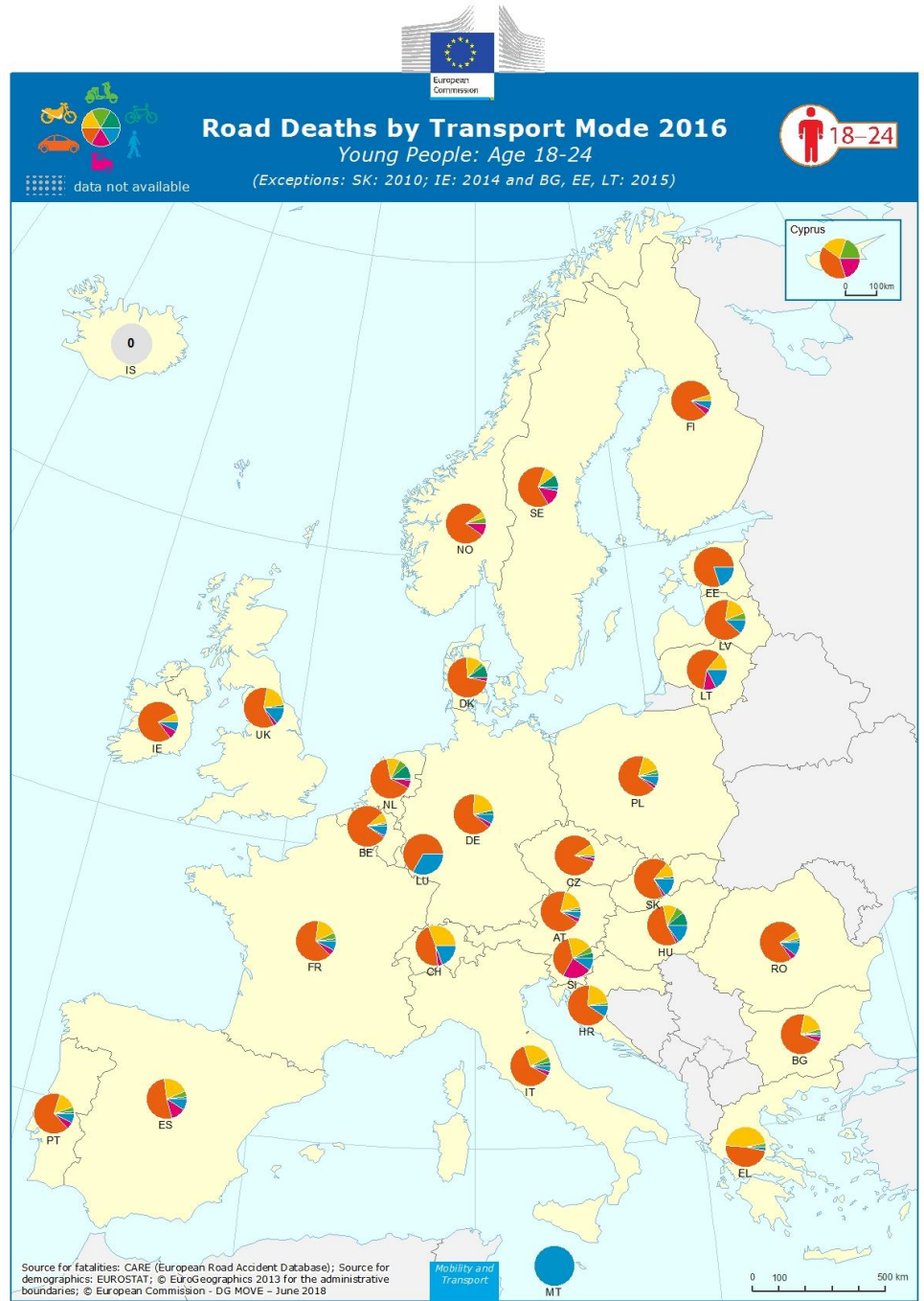
49% of the young people fatalities in Greece were riding powered two-wheelers, the highest proportion among the EU countries.

As far as powered two-wheeler fatalities (users of motorcycles and mopeds) are concerned, the lowest proportion was in Finland (5%). Greece had the highest proportion of 18-24 year olds killed on powered two-wheelers (49%) among the EU countries. Estonia and Lithuania had the highest proportions of young pedestrian fatalities (20% and 18% respectively).



# Traffic Safety Basic Facts 2018 - Young People (18-24)

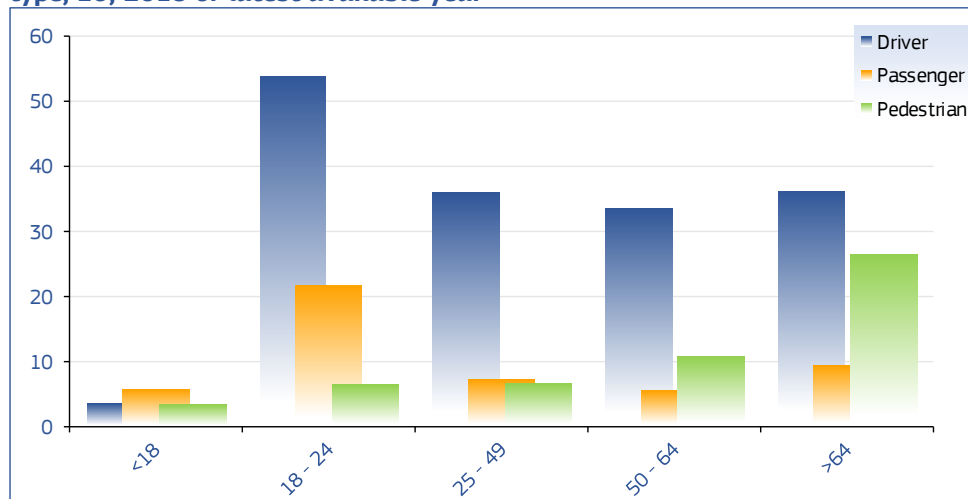
**Map 1: Distribution of young people fatalities by country and mode of transport, 2016 or latest available year**



The majority of young people (18-24) killed in road accidents in the EU countries were drivers (2.197, corresponding to 65% of all fatalities at that age group), whereas only 8% (2662) were pedestrians in 2016.

The driver and passenger fatality rates for 18-24 year olds are higher than those of other age groups.

**Figure 6: Total fatality rates per million population by age group and road user type, EU, 2016 or latest available year**



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

**Table 5: Total number and distribution of young people fatalities by country and road user type, 2016 or latest available year**

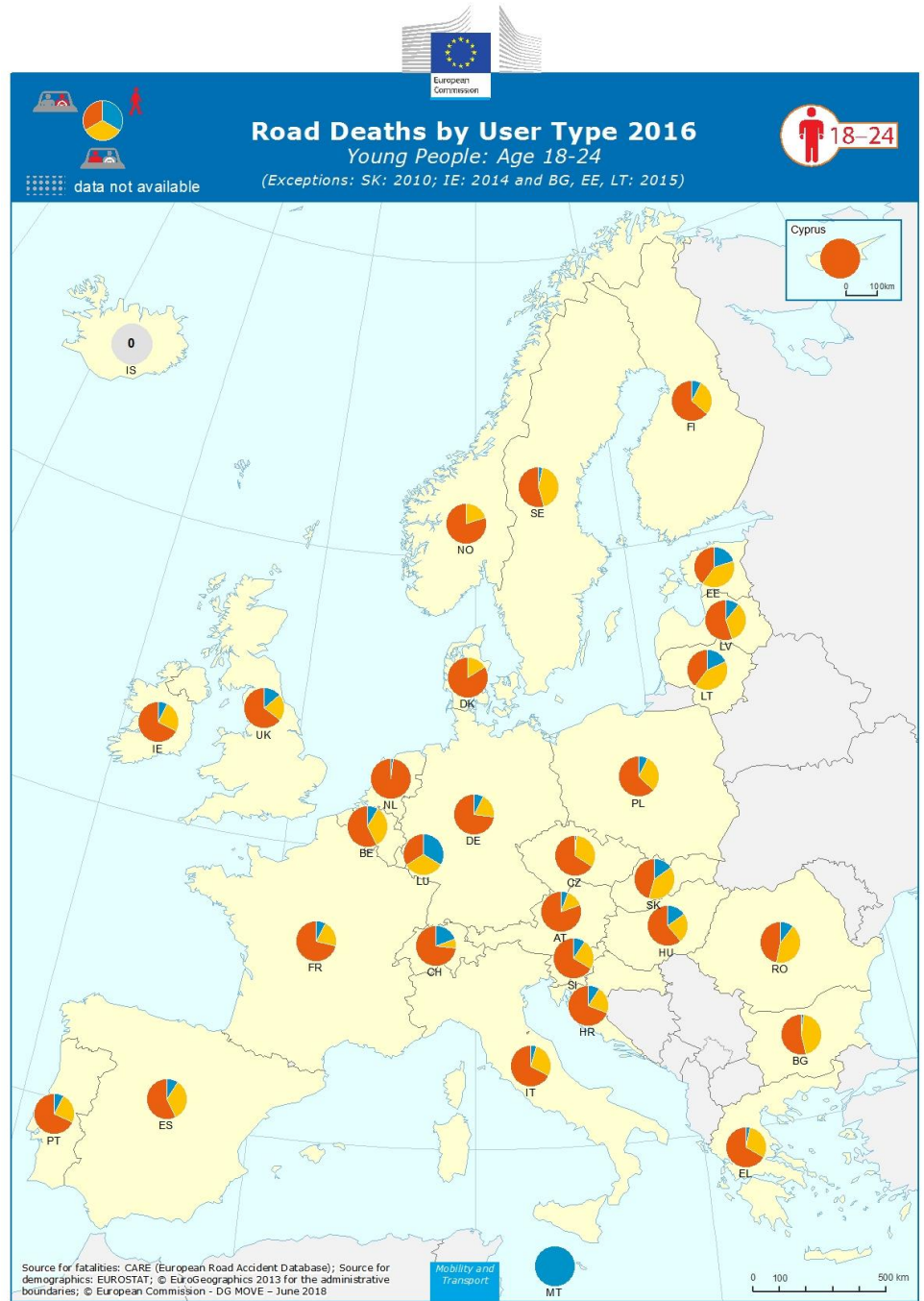
	Driver	Passenger	Pedestrian	Total
BE	57%	34%	8%	87
BG	54%	44%	2%	97
CZ	66%	32%	2%	65
DK	84%	16%	0%	31
DE	73%	19%	8%	435
EE	40%	40%	20%	5
IE	68%	25%	7%	28
EL	66%	31%	3%	101
ES	57%	34%	9%	176
FR	71%	21%	8%	596
HR	69%	21%	10%	42
IT	67%	28%	5%	352
CY	100%	0%	0%	5
LV	56%	33%	11%	18
LT	39%	43%	18%	29
LU	33%	33%	33%	3
HU	62%	23%	15%	47
MT	0%	0%	100%	2
NL	98%	0%	2%	75
AT	80%	14%	5%	56
PL	63%	30%	7%	440
PT	69%	24%	7%	54
RO	47%	43%	11%	195
SI	67%	24%	10%	21
SK	46%	39%	15%	59
FI	63%	29%	7%	41
SE	55%	42%	3%	31
UK	65%	22%	14%	279
<b>EU</b>	<b>65%</b>	<b>27%</b>	<b>8%</b>	<b>3.370</b>
IS	-	-	-	0
NO	80%	20%	0%	20
CH	73%	8%	19%	26

Source: CARE database, data available in May 2018

In 2016, about two thirds of young people killed in road accidents in the EU countries were drivers, whereas only 8% were pedestrians.

# Traffic Safety Basic Facts 2018 - Young People (18-24)

**Map 2: Distribution of young people fatalities by country and road user type, 2016 or latest available year**



## Area and Road type

In the European Union, in 2016, the majority (60%) of young people fatalities occurred outside urban areas (excluding motorways) and only 7% occurred on motorways. The percentage of young people fatalities inside urban areas was 32% for the EU countries.

**Table 6: Distribution of young people fatalities by country, area and road type, 2016 or latest available year**

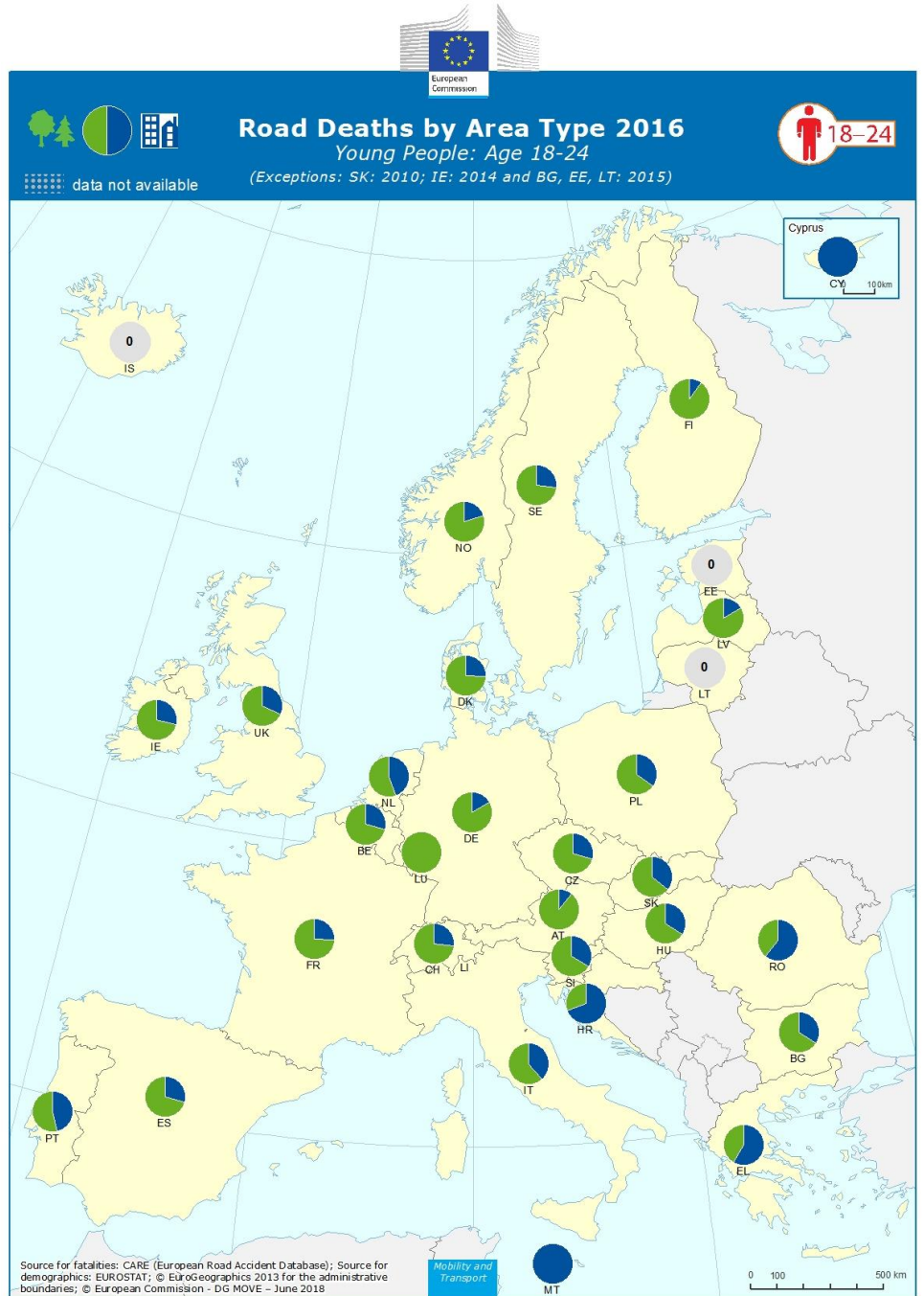
	Motorway	Non-motorway		Unknown	Total
		Rural	Urban		
BE	14%	57%	29%		87
BG	7%	59%	34%		97
CZ	2%	69%	29%		65
DK	6%	68%	26%		31
DE	14%	69%	17%		435
EE	-	-	-	100%	5
IE	4%	68%	29%		28
EL	5%	37%	58%		101
ES	22%	49%	30%		176
FR	7%	68%	26%		596
HR	7%	24%	69%		42
IT	7%	54%	39%		352
CY	0%	0%	100%		5
LV	0%	83%	17%		18
LT	-	-	-	100%	29
LU	67%	33%	0%		3
HU	9%	57%	34%		47
MT		0%	100%		2
NL	9%	45%	44%	1%	75
AT	11%	79%	11%		56
PL	1%	64%	35%		440
PT	7%	46%	46%		54
RO	1%	39%	61%		195
SI	10%	57%	33%		21
SK	5%	59%	36%		59
FI	5%	85%	10%		41
SE	3%	68%	26%	3%	31
UK	3%	65%	32%		279
<b>EU</b>	<b>7%</b>	<b>60%</b>	<b>32%</b>	<b>1%</b>	<b>3.370</b>
IS	-	-	-		0
NO	0%	80%	20%		20
CH	4%	69%	27%		26

Source: CARE database, data available in May 2018

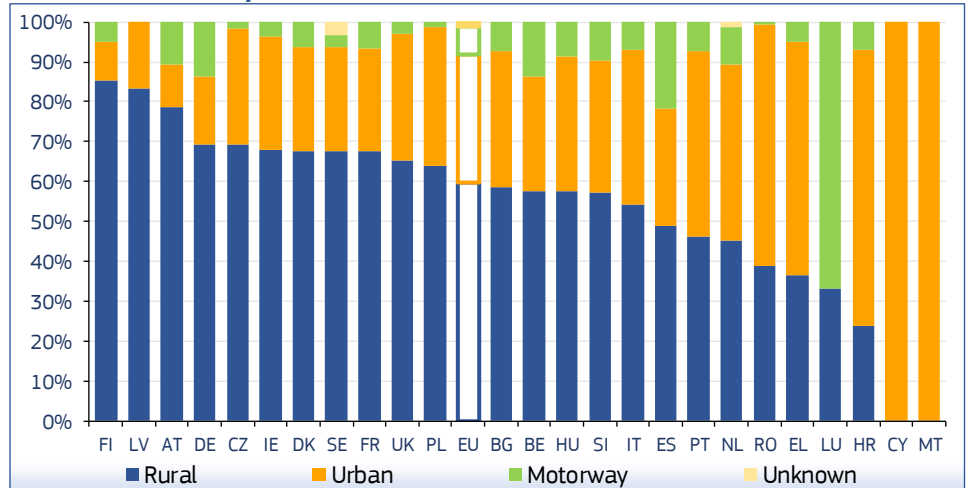
60% of young people fatalities in road accidents occurred in rural areas in 2016.

# Traffic Safety Basic Facts 2018 - Young People (18-24)

**Map 3: Distribution of young people fatalities by country and area type, 2016 or latest available year**



**Figure 7: Distribution of young people fatalities by country and area type, 2016 or latest available year**



Source: CARE database, data available in May 2018

Figure 7 shows that in 2016, Finland had the lowest percentage of young people fatalities inside urban areas (10%), whereas Croatia had the highest percentages (69%) amongst the EU countries.

### Day of the week and Time of the day

Table 7 shows the distribution of young people fatalities by time of the day in the EU countries. In the EU, most people aged 18-24 years old were killed between 20:00 and midnight (21%). The second highest percentage of young people fatalities occurred between 00:00 and 04:00, as well as between 16:00 and 20:00.

Finland had the lowest percentage of young people fatalities inside urban areas (10%), whereas Croatia had the highest (69%) amongst the EU countries in 2016.



**Table 7: Total number and distribution of young people fatalities by country and time of the day, 2016 or latest available year**

	00.00- 03.59	04.00- 07.59	08.00- 11.59	12.00- 15.59	16.00- 19.59	20.00- 23.59	Total
<b>BE</b>	36%	21%	7%	5%	10%	22%	87
<b>BG</b>	11%	8%	13%	19%	22%	27%	97
<b>CZ</b>	8%	17%	6%	15%	32%	22%	65
<b>DK</b>	13%	16%	19%	16%	13%	23%	31
<b>DE</b>	18%	16%	6%	20%	22%	18%	435
<b>EE</b>	0%	40%	0%	0%	20%	40%	5
<b>IE</b>	29%	18%	14%	11%	14%	14%	28
<b>EL</b>	20%	31%	10%	7%	10%	23%	101
<b>ES</b>	13%	29%	11%	12%	18%	17%	176
<b>FR</b>	14%	21%	12%	11%	21%	20%	596
<b>HR</b>	31%	17%	5%	7%	19%	21%	42
<b>IT</b>	27%	24%	9%	12%	13%	16%	352
<b>CY</b>	60%	0%	0%	20%	20%	0%	5
<b>LV</b>	17%	17%	6%	0%	28%	33%	18
<b>LT</b>	24%	7%	21%	14%	17%	17%	29
<b>LU</b>	33%	33%	0%	0%	0%	33%	3
<b>HU</b>	11%	11%	15%	13%	26%	26%	47
<b>MT</b>	50%	50%	0%	0%	0%	0%	2
<b>NL</b>	19%	31%	5%	8%	17%	20%	75
<b>AT</b>	11%	27%	14%	5%	30%	13%	56
<b>PL</b>	16%	14%	10%	15%	21%	24%	440
<b>PT</b>	20%	19%	6%	17%	19%	20%	54
<b>RO</b>	27%	10%	5%	11%	19%	28%	195
<b>SI</b>	24%	10%	5%	24%	14%	24%	21
<b>SK</b>	17%	24%	14%	12%	19%	15%	59
<b>FI</b>	37%	15%	24%	10%	10%	5%	41
<b>SE</b>	35%	19%	10%	13%	10%	13%	31
<b>UK</b>	22%	11%	10%	10%	18%	28%	279
<b>EU</b>	<b>19%</b>	<b>18%</b>	<b>10%</b>	<b>13%</b>	<b>19%</b>	<b>21%</b>	<b>3.370</b>
<b>IS</b>	-	-	-	-	-	-	0
<b>NO</b>	15%	25%	5%	15%	15%	25%	20
<b>CH</b>	15%	31%	15%	8%	12%	19%	26

Source: CARE database, data available in May 2018

Most young people fatalities in the EU occurred between 20:00 and 00:00.

Table 8 shows that in 2016 in the EU countries, about two fifths of the young people who were killed in road accidents, died during the weekend. The respective percentages are lower between Monday and Thursday.



**Table 8: Total number and distribution of young people fatalities by country and day of the week, 2016 or latest available year**

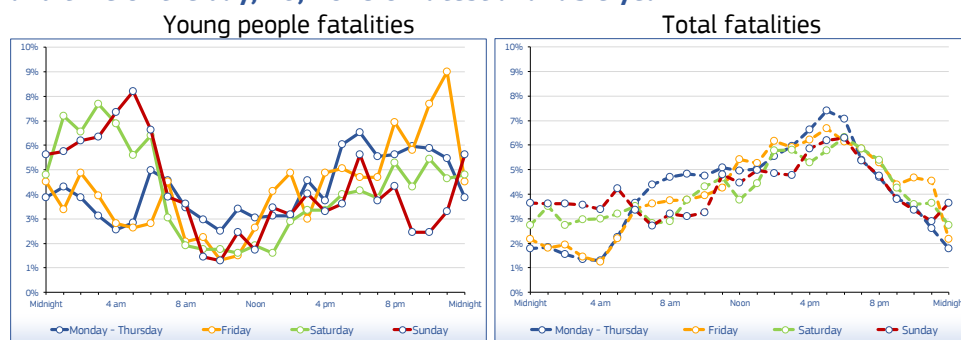
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
BE	8%	6%	9%	15%	14%	16%	32%	87
BG	8%	14%	12%	8%	22%	12%	23%	97
CZ	12%	14%	14%	14%	11%	20%	15%	65
DK	29%	13%	3%	13%	26%	6%	10%	31
DE	11%	11%	13%	9%	19%	17%	21%	435
EE	0%	40%	0%	0%	0%	40%	20%	5
IE	14%	7%	14%	14%	18%	4%	29%	28
EL	10%	8%	7%	17%	19%	12%	28%	101
ES	13%	7%	10%	10%	10%	23%	27%	176
FR	11%	9%	12%	14%	17%	19%	19%	596
HR	5%	10%	0%	14%	24%	29%	19%	42
IT	11%	10%	10%	8%	14%	22%	25%	352
CY	0%	0%	20%	0%	40%	20%	20%	5
LV	17%	17%	17%	6%	6%	22%	17%	18
LT	3%	10%	3%	17%	10%	28%	28%	29
LU	0%	33%	0%	0%	0%	33%	33%	3
HU	6%	19%	4%	17%	13%	26%	15%	47
MT	0%	50%	0%	0%	50%	0%	0%	2
NL	4%	19%	13%	8%	17%	25%	13%	75
AT	11%	14%	11%	11%	14%	14%	25%	56
PL	14%	11%	12%	10%	16%	18%	19%	440
PT	11%	20%	15%	6%	9%	19%	20%	54
RO	12%	10%	10%	13%	17%	16%	22%	195
SI	0%	10%	0%	14%	10%	38%	29%	21
SK	8%	10%	10%	14%	8%	19%	31%	59
FI	10%	10%	5%	7%	10%	41%	17%	41
SE	13%	6%	3%	13%	19%	26%	19%	31
UK	11%	10%	14%	16%	16%	15%	17%	279
<b>EU</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>	<b>16%</b>	<b>19%</b>	<b>21%</b>	<b>3.370</b>
IS	-	-	-	-	-	-	-	0
NO	5%	15%	10%	10%	25%	20%	15%	20
CH	23%	12%	8%	19%	8%	19%	12%	26

Source: CARE database, data available in May 2018

In 2016, in the EU, more than two fifths of young people were killed during the weekends.

Figure 8 shows that in 2016 more young people were killed between 19:00 and 05:00 on Fridays and between 00:00 and 06:00 during the weekends, when young people tend to stay out until late.

**Figure 8: Distribution of young people and total 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

Table 9 shows the distribution of road fatalities amongst young people through the year, using pairs of months, with the totals displayed in Figure 9 on a monthly basis.

**Table 9: Total number and distribution of young people fatalities by country and month, 2016 or latest available year**

	Jan/Feb	Mar/Apr	May/Jun	Jul/Aug	Sep/Oct	Nov/Dec	Total
BE	20%	20%	15%	18%	20%	8%	87
BG	11%	26%	19%	27%	8%	9%	97
CZ	9%	15%	20%	18%	23%	14%	65
DK	19%	0%	16%	23%	32%	10%	31
DE	13%	14%	19%	21%	18%	16%	435
EE	40%	0%	0%	40%	0%	20%	5
IE	14%	7%	21%	18%	21%	18%	28
EL	19%	12%	20%	25%	13%	12%	101
ES	13%	23%	16%	18%	17%	14%	176
FR	17%	11%	16%	19%	18%	19%	596
HR	21%	12%	10%	14%	24%	19%	42
IT	15%	14%	18%	24%	16%	14%	352
CY	0%	20%	0%	40%	20%	20%	5
LV	11%	17%	28%	17%	17%	11%	18
LT	21%	10%	17%	10%	24%	17%	29
LU	0%	0%	67%	0%	0%	33%	3
HU	15%	11%	13%	26%	17%	19%	47
MT	0%	0%	0%	50%	0%	50%	2
NL	24%	16%	5%	20%	8%	27%	75
AT	5%	20%	14%	32%	18%	11%	56
PL	10%	16%	18%	23%	21%	12%	440
PT	13%	15%	17%	17%	20%	19%	54
RO	15%	11%	17%	23%	16%	18%	195
SI	10%	14%	14%	33%	5%	24%	21
SK	14%	12%	14%	20%	22%	19%	59
FI	24%	15%	12%	15%	24%	10%	41
SE	16%	3%	19%	23%	16%	23%	31
UK	15%	16%	18%	15%	18%	18%	279
<b>EU</b>	<b>14%</b>	<b>14%</b>	<b>17%</b>	<b>21%</b>	<b>18%</b>	<b>16%</b>	<b>3.370</b>
IS	-	-	-	-	-	-	0
NO	15%	10%	15%	35%	20%	5%	20
CH	19%	12%	4%	19%	23%	23%	26

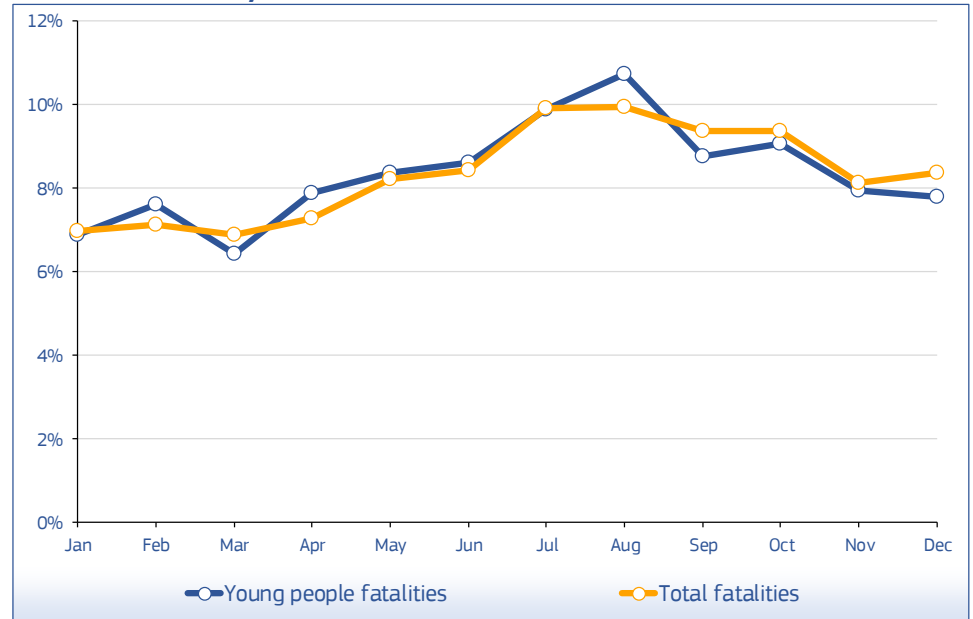
Source: CARE database, data available in May 2018

The peak period for most of the countries was in July/August, while in the Czech Republic, Denmark and Lithuania, the peak was in September/October. Fewest fatalities occurred in January/February and March/April.

In the EU, the peak period for fatalities in 2016 was July/August (21%).

In the EU, the proportion of fatalities of 18-24 year olds was relatively high in February, April and August, and relatively low in March, September and December.

**Figure 9: Distribution of young people and total fatalities by month, EU, 2016 or latest available year**



Source: CARE database, data available in May 2018

Fatalities amongst young people vary seasonally, with higher percentages in summer and lower percentages in winter.

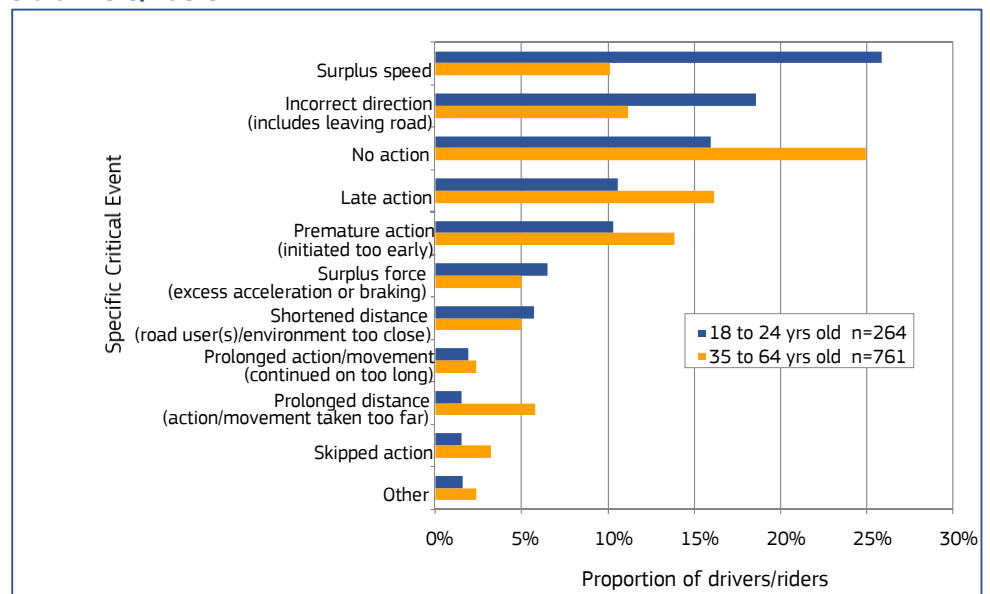
Figure 9 shows that the trend of young people fatalities in 2016 has a clear peak in August (11%), while the fewest fatalities occurred in March (6%). As far as total road fatalities are concerned, the highest percentages were recorded between July and August (about 10%).

## 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, 25% (249) of the accidents involve a driver or rider between 18 and 24 years old. Males account for 75% of this group and 79% are drivers of passenger cars. Figure 10 compares the distribution of specific critical events for drivers and riders of young age against the distribution for 35 to 64 year olds.

**Figure 10: Distribution of specific critical events - 18 to 24 and 35 to 64 years old drivers/riders**



Source: SafetyNet Accident Causation Database 2005 to 2008

The clearest difference between the two age groups relates to the specific critical event of surplus speed, attributed to just over one quarter of the young age group but only 10% of the older group. Surplus speed describes speed that is too high for the conditions or manoeuvre being carried out, travelling above the speed limit and also if the driver is travelling at a speed unexpected by other road users. Incorrect direction is also recorded more frequently for the younger age group. This 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 direction of the road). ‘Loss of control’ type accidents can fall into either critical event depending on the specific situation.

The specific critical events under the general category of ‘timing’, no action, premature action and late action, are the next three most frequently recorded events but each is recorded more frequently for the older group, especially no action. No action describes those drivers/riders who have not reacted at all (or at least in an effective time frame) to avoid a collision, for example, to avoid an oncoming vehicle. A premature action is one undertaken before a signal has been given or the required conditions are established, for example entering a junction before it is clear of other traffic.

Table 10 gives the most frequent links between causes for young drivers/riders. For this group there are 371 such links in total.

**Table 10: Ten most frequent links between causes – young drivers/riders**

Links between causes	Frequency
Inadequate plan - Insufficient knowledge	55
Faulty diagnosis - Information failure (driver/environment or driver/vehicle)	38
Observation missed - Distraction	25
Observation missed - Faulty diagnosis	21
Inadequate plan - Under the influence of substances	18
Observation missed - Temporary obstruction to view	17
Observation missed - Inadequate plan	15
Inadequate plan - Psychological stress	13
Observation missed - Permanent obstruction to view	12
Faulty diagnosis - Communication failure	12
Others	145
<b>Total</b>	<b>371</b>

Source: SafetyNet Accident Causation Database 2005 to 2008

Inadequate plan is 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. The causes leading to inadequate plan are a lack of knowledge and impairment from substances and psychological stress.

Faulty diagnosis and observation missed then follow. Faulty diagnosis is an incorrect or incomplete understanding of road conditions or another road user’s actions. It is linked to both information failure (for example, a driver/ rider thinking another vehicle was moving when it was in fact stopped and colliding with it) and communication failure (for example, pulling out in the continuing path of a driver who has indicated for a turn too early). The causes leading to observation missed can be seen to fall into two groups, human factors (for example, not observing a red light due to distraction) and physical ‘obstruction to view’ type causes (for example, parked cars at a junction).

15% of the links between causes are observed to be between ‘inadequate plan’ and ‘insufficient knowledge’.

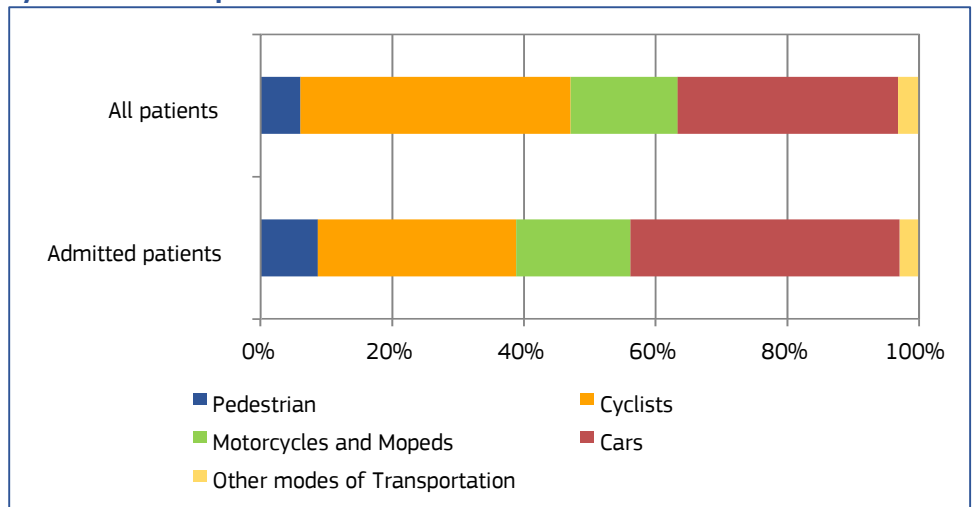
By 2012, thirteen Member States routinely collected data in a sample of hospitals and contributed them to the EU injury Database.

## Road accident health indicators

Injury data can be obtained from a wide range of sources, such as police and ambulance reports, national insurance schemes, and hospital records, each of which provides a specific but yet incomplete picture of the injuries suffered in road accidents. In order to obtain a comprehensive view of these injuries, the EU Council issued a recommendation that urges Member States to use synergies between existing data sources and to develop national injury surveillance systems rooted in the health sector. At present, thirteen Member States are routinely collecting injury data in a sample of hospitals and delivering these data to the Commission. This system is called the EU Injury Database (EU IDB).

Within the EU IDB “transport module” injuries suffered in road accidents are recorded by “mode of transport”, “role of injured person” and “counterpart”. These variables can complement information from police records, in particular for injury patterns and the improved assessment of injury severity. The indicators used include the percentage of casualties attending hospital who are admitted to hospital, the mean length of stay of hospital admissions, the nature and type of body part injured, and potentially also long term consequences of injuries.

**Figure 11: Distribution of non-fatal road accident casualties attending hospital by mode of transport**



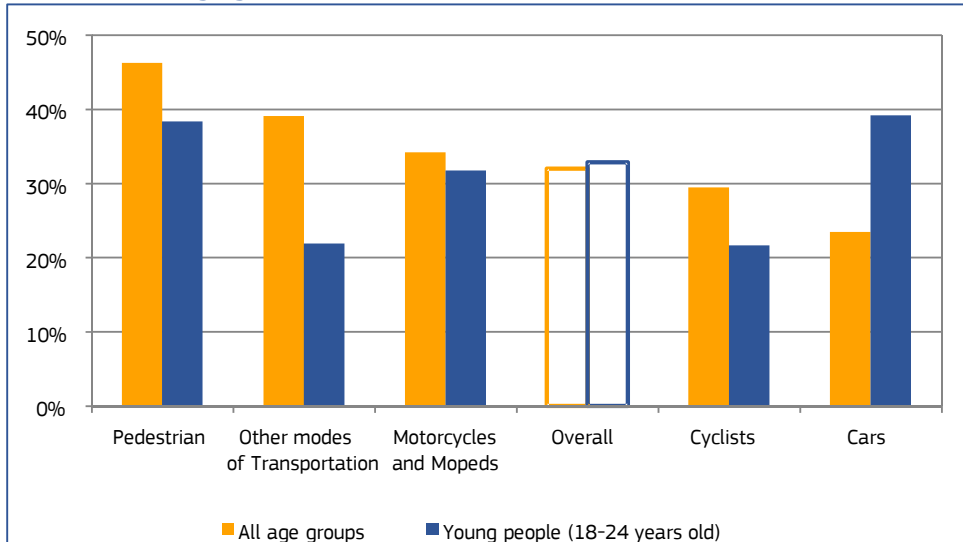
EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600; n-admitted = 23.568 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

Figure 11 is based on IDB data from nine countries for accidents that occurred between 2005 and 2008. Vulnerable road users (pedestrians, cyclists, motorcycles and mopeds) accounted for almost two thirds (63%) of road accident casualties attending hospital, and for over half of casualties admitted to the hospital (56%).

According to estimates based on the EU IDB more than four million people are injured annually in road accidents, one million of whom have to be admitted to hospital.

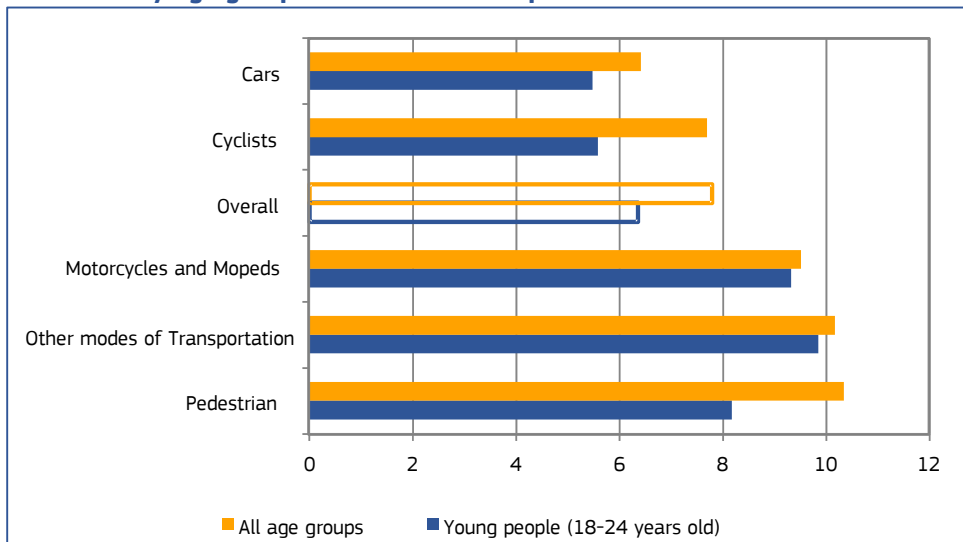
Overall, 32% of road accident casualties recorded in the IDB were admitted to the hospital, whilst more than 32% for young people (Figure 12); with an average length of stay of eight days, about six days for young people (Figure 13).

**Figure 12: Percentage of non-fatal road accident casualties who were admitted to hospital by age group and mode of transport**



EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600, n-young people =13.190, n- youngsters admitted = 4.336 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

**Figure 13: Average length of stay (hospital bed days) of non-fatal road accident casualties by age group and mode of transport**

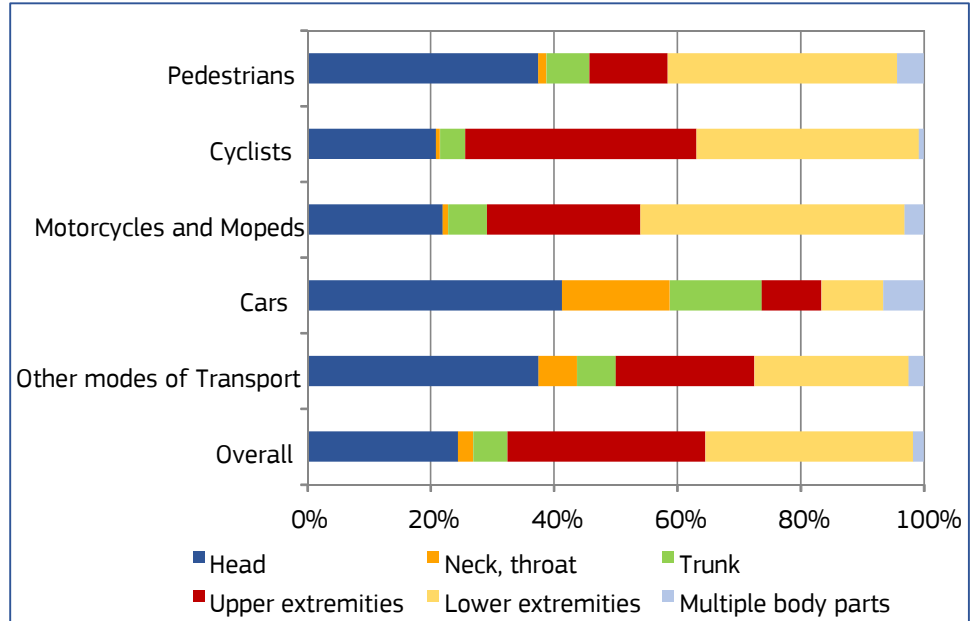


EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600, n-young people =13.190, n- youngsters admitted = 4.336 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

More than 32% of injured young people who attended a hospital were admitted to the hospital; their average stay in hospital was six days.



**Figure 14: Distribution of non-fatal road accident young people casualties by mode of transport and body part injured**



EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600, n-young people = 13.190, n- youngsters admitted = 4.336 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

Naturally, hospital data can provide information on the injury patterns sustained by the accident victims. Figure 14 illustrates the distribution of body parts injured in young people's casualties by mode of transports.

Table 11 shows the types of injuries most frequently recorded in the EU IDB. It compares the distribution of injuries among young people and road users of all ages.

**Table 11: Ten most frequently recorded types of injury by age group**

	Young people (18-24 years)	All age groups
Contusion, bruise	38%	34%
Fracture	18%	27%
Open wound	10%	10%
Distortion, sprain	10%	8%
Concussion	9%	7%
Other specified brain injury	2%	2%
Luxation, dislocation	1%	2%
Injury to muscle and tendon	2%	2%
Abrasion	1%	1%
Injury to internal organs	1%	1%
Other specified types of injury	8%	6%
<b>Total</b>	<b>100%</b>	<b>100%</b>

EU Injury Database (EU IDB AI) - hospital treated patients. IDB AI Transport module and place of occurrence (code 6.n [public road]); n-all = 73.600, n-young people = 13.190, n- youngsters admitted = 4.336 (DE, DK, LV, MT, AT, NL, SE, SI, CY, years 2005-2008).

Contusions and bruises account for almost 40% of all traffic injuries suffered by young people attending hospital.

## 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](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 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

This report has been produced by the National Technical University of Athens ([NTUA](#)), the Austrian Road Safety Board ([KFV](#)) and the European Union Road Federation ([ERF](#)) under a contract with the [European Commission](#). Whilst every effort has been made to ensure that the matter presented in this report is relevant, accurate and up-to-date, the Partners cannot accept any liability for any error or omission, or reliance on part or all of the content in another context.

Any information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use that may be made of the information contained therein.

### 9. Please refer to this Report as follows:

*European Commission, Traffic Safety Basic Facts on Young People, European Commission, Directorate General for Transport, June 2018.*

