



Traffic Safety Basic Facts 2006

Bicycles

Bicycle fatalities made up 4,5% of the total number of road accident fatalities in 2004¹. In 2004¹, 1.209 people riding bicycles were killed in traffic accidents in 14 European Union countries, which is 5,1% less than the 1.275 bicycle fatalities reported in 2003² in the same countries. There was a reduction of 37,3% during the decade for the same countries.

Table 1 shows the number of bicycle fatalities for 14 European Union countries from 1995 up to 2004.

Table 1: The number of bicycle fatalities by country, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	128	121	122	135	122	134	130	105	110	79
DK	77	88	65	58	59	58	56	52	47	53
EL	34	28	32	34	23	22	29	14	21	24
ES	123	101	116	114	119	84	100	96	78	88
FR	368	296	318	296	295	244	235	208	185	177
IE	28	22	24	21	14	10	12	18	10	-
IT	391	413	428	364	402	381	331	314	326	296
LU	3	1	1	1	0	1	1	1	-	-
NL	267	233	242	194	194	198	195	169	188	-
AT	77	73	66	57	68	62	55	80	56	58
PT	96	75	75	74	41	56	50	58	63	47
FI	74	46	61	54	63	53	59	53	39	26
SE	57	49	42	58	45	47	43	42	35	27
UK	217	208	187	165	173	131	140	133	116	136
EU-14	1.940	1.755	1.779	1.626	1.618	1.481	1.436	1.343	1.275 ²	1.209 ¹
Yearly change		-9,6%	1,4%	-8,6%	-0,4%	-8,5%	-3,0%	-6,4%	-5,1%	-5,1%

Source: CARE Database / EC
Date of query: October 2006

Table 2 shows the fatality rates of bicycles. This is defined as the number of bicycle fatalities per million inhabitants. Bicycle fatality rates are highest in the Netherlands and Belgium and lowest in Spain, Greece and the United Kingdom.

In 2004, bicycle fatalities made up 4,5% of the total number of road accident fatalities.



¹ Using data of 2004 for all countries except LU (2002), IE, NL (2003).

² Using data of 2003 for all countries except LU (2002).

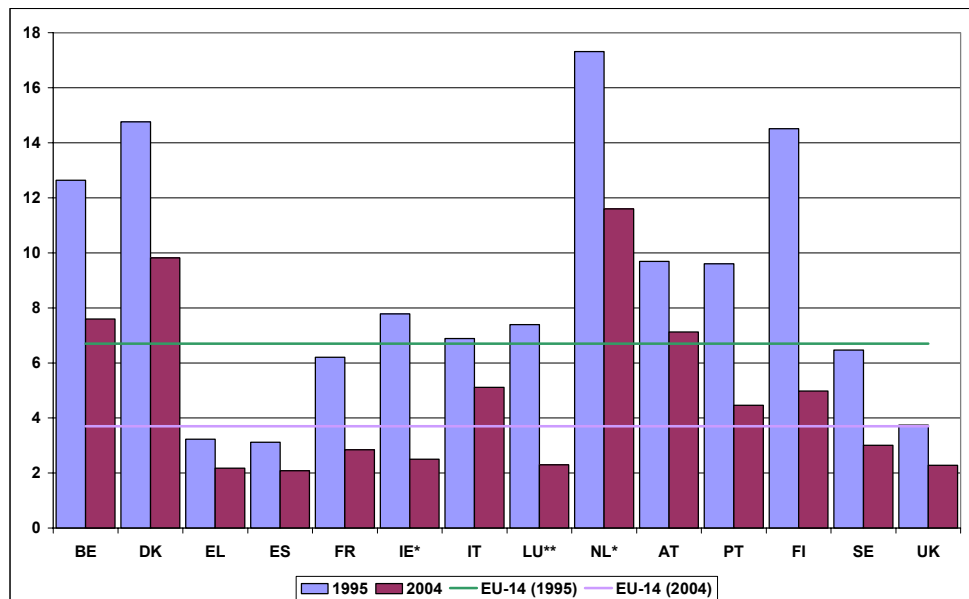


Table 2: Bicycle fatality rates by country, 1995-2004

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	12,6	11,9	12,0	13,2	11,9	13,1	12,7	10,2	10,6	7,6
DK	14,8	16,8	12,3	11,0	11,1	10,9	10,5	9,7	8,7	9,8
EL	3,2	2,6	3,0	3,1	2,1	2,0	2,7	1,3	1,9	2,2
ES	3,1	2,6	2,9	2,9	3,0	2,1	2,5	2,3	1,9	2,1
FR	6,2	5,0	5,3	4,9	4,9	4,0	3,9	3,4	3,0	2,8
IE	7,8	6,1	6,6	5,7	3,8	2,6	3,1	4,6	2,5	-
IT	6,9	7,3	7,5	6,4	7,1	6,7	5,8	5,5	5,7	5,1
LU	7,4	2,4	2,4	2,4	0,0	2,3	2,3	2,3	-	-
NL	17,3	15,0	15,5	12,4	12,3	12,5	12,2	10,5	11,6	-
AT	9,7	9,2	8,3	7,2	8,5	7,7	6,9	9,9	6,9	7,1
PT	9,6	7,5	7,5	7,3	4,0	5,5	4,9	5,6	6,0	4,5
FI	14,5	9,0	11,9	10,5	12,2	10,2	11,4	10,2	7,5	5,0
SE	6,5	5,5	4,7	6,6	5,1	5,3	4,8	4,7	3,9	3,0
UK	3,7	3,6	3,2	2,8	3,0	2,2	2,4	2,2	2,0	2,3
EU-14	6,7	6,0	6,1	5,5	5,5	5,0	4,8	4,5	4,2 ²	3,7 ¹

Source: CARE Database / EC, EUROSTAT
Date of query: October 2006

Figure 1: Bicycle fatality rates, 1995 versus 2004



* Data from 2003
** Data from 2002

Source: CARE Database / EC, EUROSTAT
Date of query: October 2006

Figure 1 indicates that the Netherlands has the highest number of bicycle fatality rates for both years. There was a decrease of 33% in ten years, which is smaller than the decrease of 45% in the fatality rate in all the 14 European countries (from 6,7 in 1995 to 3,7 in 2004). Ireland is the country which shows the most remarkable improvement during this last decade (68% decrease). In none of the 14 countries has the fatality rate increased over the decade.

Ireland is the country where the most significant reduction in bicycle fatalities is observed since 1995.





Table 3: Percentages of bicycle fatalities in the total number of road accident fatalities, 1995-2004

%	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	8,8	8,9	8,9	9,0	8,7	9,1	8,7	8,0	9,1	6,8
DK	13,2	17,1	13,3	11,6	11,5	11,6	13,0	11,2	10,9	14,4
EL	1,4	1,3	1,5	1,6	1,1	1,1	1,5	0,9	1,3	1,4
ES	2,1	1,8	2,1	1,9	2,1	1,5	1,8	1,8	1,4	1,9
FR	4,1	3,5	3,8	3,3	3,5	3,0	2,9	2,7	3,1	3,2
IE	6,4	4,9	5,1	4,6	3,4	2,4	2,9	4,8	3,0	-
IT	5,6	6,2	6,4	5,8	6,0	5,7	4,9	4,7	5,4	5,3
LU	4,3	1,4	1,7	1,8	0,0	1,3	1,4	1,6	-	-
NL	20,0	19,7	20,8	18,2	17,8	18,3	19,6	17,1	18,3	-
AT	6,4	7,1	6,0	5,9	6,3	6,4	5,7	8,4	6,0	6,6
PT	3,5	2,8	3,0	3,5	2,1	3,0	3,0	3,5	4,1	3,6
FI	16,8	11,4	13,9	13,5	14,6	13,4	13,6	12,8	10,3	6,9
SE	10,0	9,1	7,8	10,9	7,8	8,0	7,4	7,5	6,6	5,6
UK	5,8	5,6	5,0	4,6	4,9	3,7	3,9	3,7	3,2	4,0
EU-14	5,3	5,0	5,1	4,7	4,7	4,4	4,4	4,2	4,4 ²	4,5 ¹

Source: CARE Database / EC
Date of query: October 2006

The countries with the highest percentage of bicycle fatalities are Denmark, the Netherlands and Finland, as is indicated by Table 3. In contrast, in Greece, Spain and Luxembourg bicycle constitute only a small part (<2%) of the road accident fatalities.

Age and gender

In 2004¹ almost 50% of the total bicycle fatalities (570 people) were people older than 60. In Finland it is as much as 70%. It also follows from Table 4 that more than three quarters of the bicycle fatalities in all countries are male.

Table 4: Percentage of bicycle fatalities by age and gender, 2004

Age group	0-14		15-24		25-39		40-59		60+		Unknown
	female	male	female	male	female	male	female	male	female	male	
BE	1,3	3,8	0,0	8,9	1,3	3,8	8,9	15,2	11,4	45,6	1,3
DK	5,7	5,7	5,7	1,9	5,7	11,3	3,8	18,9	17,0	24,5	5,7
EL	0,0	20,8	4,2	8,3	0,0	8,3	0,0	16,7	0,0	41,7	0,0
ES	2,5	5,9	0,3	8,9	1,5	17,3	1,4	25,3	3,5	31,9	2,5
FR	3,6	9,0	3,0	4,8	4,2	3,6	5,4	29,9	6,6	29,9	3,6
IE*	10,0	20,0	10,0	0,0	0,0	10,0	0,0	10,0	0,0	40,0	10,0
IT	0,0	4,1	1,7	2,0	1,7	10,5	4,4	16,9	9,1	47,6	0,0
LU**	0,0	0,0	0,0	0,0	0,0	0,0	0,0	100,0	0,0	0,0	0,0
NL*	5,9	5,3	3,7	6,4	3,7	3,7	4,3	12,8	19,1	34,6	5,9
AT	1,7	1,7	1,7	3,4	0,0	6,9	3,4	17,2	15,5	48,3	1,7
PT	0,0	2,5	0,0	4,9	0,0	19,6	0,0	29,4	4,9	34,4	0,0
FI	0,0	0,0	3,8	0,0	0,0	11,5	0,0	15,4	26,9	42,3	0,0
SE	0,0	3,7	0,0	3,7	0,0	0,0	3,7	18,5	14,8	55,6	0,0
UK	2,2	14,0	5,1	11,8	3,7	13,2	4,4	22,1	4,4	19,1	2,2
EU-14	2,4	6,5	2,6	5,4	2,5	8,7	4,1	19,8	10,3	36,9	2,4

* Data from 2003

** Data from 2002

Source: CARE Database / EC
Date of query: October 2006

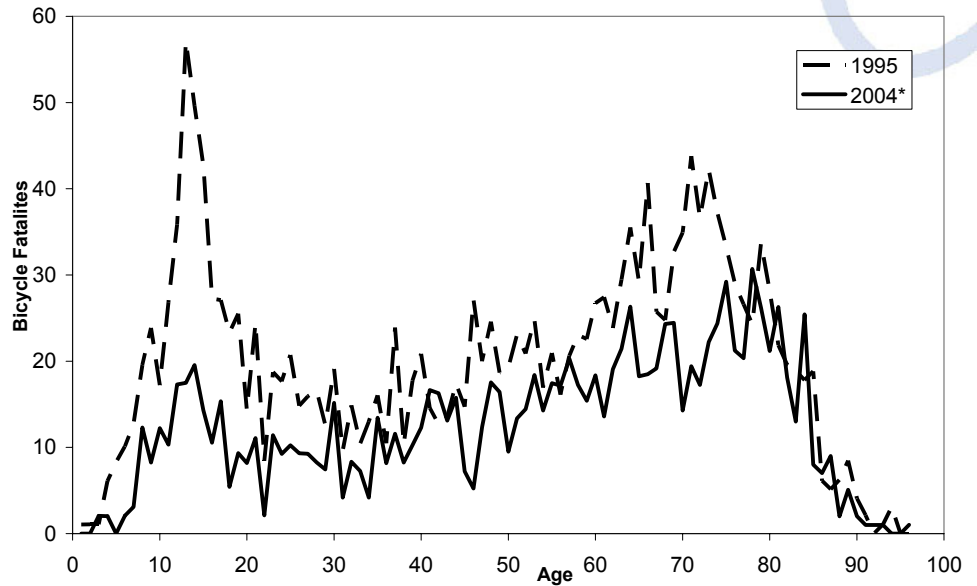
The majority of bicycle fatalities concerns elderly male riders.





The age distribution for all countries by single age bands is displayed in figure 2. The number of fatalities has dropped for all ages, but most for people younger than 40 years old.

Figure 2: Bicycle fatalities by age – EU-14, 2004¹ compared with 1995



* Data IE, NL from 2003, LU 2002

Source: CARE Database
Date of query: October 2006

The number of bicycle fatalities has decreased most since 1995 for younger bicyclists.

Road network: area type

From Table 5 it follows that the majority of bicycle fatalities in all countries occur inside urban areas. The highest percentage of bicycle fatalities inside urban areas is found in the United Kingdom. All bicycle fatalities in Ireland (10) and Luxembourg (1) happened outside urban areas, but these are both very small numbers compared to the other countries.

Table 5: Percentage of bicycle fatalities by area type, 2004

	Inside urban area	Outside urban area	Not known
BE	41,8%	58,2%	0,0%
DK	56,6%	43,4%	0,0%
EL	41,7%	58,3%	0,0%
ES	23,2%	76,8%	0,0%
FR	48,5%	51,5%	0,0%
IE*	0,0%	100,0%	0,0%
IT	62,2%	37,8%	0,0%
LU**	0,0%	100,0%	0,0%
NL*	60,6%	39,4%	0,0%
AT	50,0%	50,0%	0,0%
PT	51,2%	48,8%	0,0%
FI	53,8%	46,2%	0,0%
SE	63,0%	33,3%	3,7%
UK	64,0%	36,0%	0,0%
EU-14	53,6%	46,3%	0,1%

* Data from 2003

** Data from 2002

Source: CARE Database / EC
Date of query: October 2006

The majority of bicycle fatalities occur inside urban areas.





Road network: junction type

Table 6 shows the percentage of road traffic fatalities in 2004¹ that occurred at junctions for different type of modes. Bicycles have the highest share of fatalities at junctions: about half of the fatalities occurred at a junction. Of all the bicycle fatalities that happened on a junction the majority happened on crossroads as Table 7 shows.

Table 6: Percentage of road traffic fatalities by junction type and mode of transport – EU-14, 2004¹

	Not at junction	At junction	Not defined
Pedestrian	70,5%	24,0%	5,5%
Pedal cycle	51,8%	44,6%	3,6%
Moped	62,4%	34,3%	3,3%
Motorcycle	68,3%	27,9%	3,8%
Car	77,2%	17,1%	5,7%
Lorry	79,0%	14,5%	6,4%
Other/unknown	79,2%	14,2%	6,6%

Source: CARE Database / EC
Date of query: October 2006

Of all modes, bicycle fatalities most often occur at junctions.

Table 7: The number of bicycle fatalities by junction type, 2004

	Not at junction	At junction					Not defined
		cross-road	t or y junction	level crossing	round-about	other junction type / unknown	
BE	40	0	0	0	2	37	0
DK	23	12	0	1	1	15	1
EL	24	0	0	0	0	0	0
ES	61	9	14	0	1	2	0
FR	127	29	10	0	6	5	0
IE*	0	2	0	0	1	0	7
IT	155	52	0	0	6	83	0
LU**	1	0	0	0	0	0	0
NL*	78	49	48	9	4	0	0
AT	28	14	5	0	2	1	8
PT	31	6	5	0	0	0	6
FI	0	0	0	0	0	13	13
SE	2	15	0	0	0	1	9
UK	57	9	37	0	8	25	0
EU-14	627	539					44
%	51,8%	44,6%					3,6%
% junction type		197	118	10	32	183	
		36,5%	21,9%	1,9%	5,9%	33,9%	

* Data from 2003

** Data from 2002

Source: CARE Database / EC
Date of query: October 2006



Day of the week

For the total of 14 countries the proportion of bicycle fatalities seems to be slightly less on days in the last half of the week than in days in the first half. In twelve countries more bicycle fatalities happen on Saturdays than on Sundays, only in Sweden more fatalities occur on Sunday.

Table 8: Percentage of bicycle fatalities by day of week, 2004

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BE	17,7%	19,0%	17,7%	15,2%	17,7%	6,3%	6,3%
DK	11,3%	17,0%	18,9%	15,1%	11,3%	15,1%	11,3%
EL	12,5%	4,2%	16,7%	8,3%	20,8%	29,2%	8,3%
ES	14,1%	15,0%	14,1%	11,2%	14,5%	18,9%	12,2%
FR	18,0%	15,0%	14,4%	17,4%	7,8%	14,4%	13,2%
IE*	0,0%	10,0%	30,0%	40,0%	0,0%	20,0%	0,0%
IT	15,9%	14,5%	16,2%	11,8%	14,9%	15,5%	11,1%
LU**	0,0%	0,0%	0,0%	0,0%	0,0%	100,0%	0,0%
NL*	18,6%	13,8%	14,4%	15,4%	13,8%	12,8%	11,2%
AT	8,6%	13,8%	15,5%	20,7%	17,2%	19,0%	5,2%
PT	17,1%	24,4%	9,8%	9,8%	19,5%	14,6%	4,9%
FI	15,4%	23,1%	19,2%	7,7%	19,2%	11,5%	3,8%
SE	7,4%	7,4%	11,1%	33,3%	14,8%	7,4%	18,5%
UK	16,2%	14,7%	16,2%	13,2%	14,7%	14,0%	11,0%
EU-14	15,7%	15,1%	15,5%	14,6%	14,0%	14,6%	10,5%

* Data from 2003
** Data from 2002

Source: CARE Database / EC
Date of query: October 2006

Table 9 shows that proportion of bicycle fatalities by time of the day and day of the week for all 14 countries together in 2004¹. If the fatalities would be distributed equally over time of the day and day of the week, you may expect $100/84 = 1,19\%$ in each cell. Cells with 30% higher or lower values have been coloured. Sundays and nights appear to have less and there appear to be more daytime fatalities than expected.

Table 9: Proportion of bicycle fatalities by day and hour, EU-14, 2004¹

	Mon	Tue	Wed	Th	Fri	Sat	Sun	Total
0 - 2	0,1%	0,2%	0,1%	0,4%	0,3%	0,3%	0,4%	1,8%
2 - 4	0,0%	0,2%	0,1%	0,0%	0,1%	0,3%	0,2%	0,9%
4 - 6	0,0%	0,2%	0,1%	0,1%	0,4%	0,5%	0,1%	1,3%
6 - 8	0,8%	1,3%	0,7%	0,8%	0,8%	0,3%	0,4%	5,1%
8 - 10	1,3%	1,4%	1,9%	2,1%	1,5%	1,1%	1,0%	10,3%
10 - 12	2,6%	2,3%	3,3%	1,9%	1,8%	1,9%	2,6%	16,5%
12 - 14	1,6%	1,5%	1,4%	1,4%	1,9%	1,4%	1,1%	10,4%
14 - 16	2,1%	2,1%	2,5%	2,1%	1,4%	2,4%	0,6%	13,3%
16 - 18	3,1%	2,5%	1,9%	2,8%	1,9%	1,8%	1,4%	15,4%
18 - 20	2,5%	1,9%	1,8%	1,4%	1,6%	2,0%	1,8%	13,0%
20 - 22	0,8%	1,2%	1,1%	0,9%	1,4%	1,5%	0,7%	7,6%
22 - 24	0,8%	0,2%	0,8%	0,6%	0,8%	1,1%	0,3%	4,5%
Total	15,7%	15,0%	15,5%	14,6%	14,0%	14,7%	10,5%	100,0%

>1,55 %
<0,92 %

Source: CARE Database / EC
Date of query: October 2006

During daytime hours, the number of fatalities is highest.

Low fatality numbers are found during the nights and on Sunday.





Month of the year

The number of bicycle fatalities shows a seasonal dependence. In winter there are fewer fatalities. An explanation for this might be that in the winter people will take the car or a walk instead of using a bicycle.

Table 10: The percentage of bicycle fatalities by month, 2004

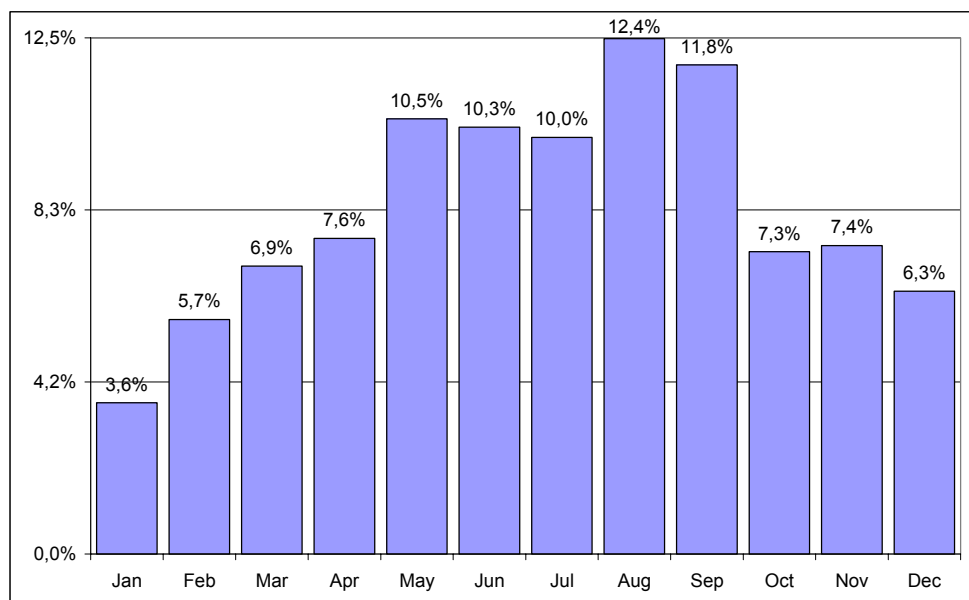
%	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BE	3,8	11,4	5,1	11,4	11,4	7,6	2,5	19,0	11,4	7,6	5,1	3,8
DK	5,7	9,4	5,7	5,7	3,8	9,4	9,4	11,3	15,1	3,8	7,5	13,2
EL	0,0	4,2	16,7	12,5	8,3	0,0	8,3	16,7	8,3	16,7	0,0	8,3
ES	1,7	7,6	10,3	9,0	10,2	8,1	14,8	14,1	9,4	8,0	5,1	1,6
FR	3,6	4,2	6,6	5,4	7,2	11,4	9,6	16,2	16,2	9,0	5,4	5,4
IE*	0,0	0,0	0,0	10,0	40,0	0,0	0,0	20,0	10,0	0,0	10,0	10,0
IT	3,4	6,1	7,1	7,4	11,1	11,5	10,5	11,8	10,1	6,8	7,4	6,8
LU**	0,0	0,0	0,0	0,0	0,0	100,0	0,0	0,0	0,0	0,0	0,0	0,0
NL*	3,7	3,7	9,6	9,0	8,5	11,2	10,1	10,1	10,1	5,9	10,6	7,4
AT	3,4	0,0	1,7	3,4	17,2	13,8	17,2	12,1	13,8	8,6	5,2	3,4
PT	4,9	4,9	4,9	9,8	4,9	4,9	9,8	7,3	14,6	4,9	17,1	12,2
FI	7,7	3,8	0,0	11,5	11,5	7,7	15,4	7,7	15,4	7,7	11,5	0,0
SE	0,0	3,7	3,7	7,4	22,2	11,1	11,1	11,1	11,1	11,1	3,7	3,7
UK	5,1	7,4	6,6	5,9	13,2	11,0	8,1	9,6	11,0	7,4	7,4	7,4
EU-14	3,6	5,7	6,9	7,6	10,5	10,3	10,0	12,4	11,8	7,3	7,4	6,3

* Data from 2003
** Data from 2002

Source: CARE Database / EC
Date of query: October 2006

From May to September a relatively large number of fatalities is observed.

Figure 3: Percentage of bicycle fatalities by month – EU-14, 2004¹



Source: CARE Database / EC
Date of query: October 2006

During the summer months May - September the numbers of bicycle fatalities are highest.





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, readers use 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 Energy and Transport of the European Commission, 28 Rue de Mot, B-1040 Brussels (see

ec.europa.eu/transport/roadsafety/road_safety_observatory/care_reports_en.htm).

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

- Main Figures
- Children (Aged <16)
- Young People (Aged 16-24)
- The Elderly (Aged >64)
- Pedestrians
- Bicycles
- Motorcycles and Mopeds
- Car Occupants
- Heavy Goods Vehicles & Buses
- Motorways
- Junctions

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

All these reports and more information on the Integrated Project SafetyNet, co-financed by the European Commission, Directorate-General Energy and Transport are also available at the SafetyNet website: www.erso.eu.

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