Road Safety PIN

ETSC
European Transport Safety Council

Road Safety PIN Flash 19 - Background Tables
Unprotected road users - a key concern of road safety

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EU27	2001	2002	2003	2004	2005	2006	2007	2008	2009	Reduction 2001/2009
Other road users	32,881	32,285	30,481	28,010	26,593	24,963	24,072	22,011	19,515	**41%**
PTW riders	7,470	7,189	7,205	6,947	6,959	6,736	7,108	6,474	6,145	**18%**
Cyclists	3,505	3,363	3,344	3,079	3,119	2,859	2,768	2,491	2,306	**34%**
Pedestrians	10,518	10,593	9,387	9,328	8,723	8,595	8,652	8,101	6,941	**34%**

Table 1 (Fig. 1). Road deaths since 2001 for pedestrians, cyclists, motorcyclists and other road users in the EU27

Code	Country	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual % change	Reduction 2009-2001
PT	**Portugal**	337	339	280	233	214	156	156	155	148	**-11.0%**	-56%
SE	**Sweden**	87	58	55	67	50	55	58	45	44	**-8.9%**	-49%
NO	**Norway**	45	35	34	22	32	36	23	31	26	**-7.8%**	-42%
LV	**Latvia**	201	195	195	197	173	153	158	105	82	**-7.2%**	-59%
EE	**Estonia**	61	59	43	60	47	61	37	41	24	**-7.1%**	-61%
NL	**The Netherlands**	106	97	97	68	83	66	86	56	63	**-7.0%**	-41%
BE	**Belgium**	160	127	114	102	108	123	104	99	103	**-6.9%**	-36%
IE	**Ireland**	89	86	64	70	74	73	81	49	40	**-6.8%**	-55%
FR	**France**	822	866	626	581	635	535	561	548	496	**-6.6%**	-40%
ES	**Spain**	846	776	786	683	680	614	591	502	470	**-6.6%**	-44%
CH	**Switzerland**	104	96	91	95	69	76	79	59	60	**-6.6%**	-42%
IT	**Italy**	1,032	1,226	871	810	786	758	627	648	667	**-6.3%**	-35%
FI	**Finland**	62	40	59	49	45	49	48	53	30	**-5.8%**	-52%
CZ	**Czech Republic**	322	309	290	281	298	202	235	238	176	**-5.8%**	-45%
EL	**Greece**	338	279	257	293	234	267	255	248	202	**-5.6%**	-40%
HU	**Hungary**	355	378	299	326	289	296	288	251	186	**-5.3%**	-48%
CY	**Cyprus**	21	17	18	18	23	19	17	16	9	**-5.3%**	-57%
UK	**United Kingdom**	858	808	802	694	699	697	663	591	524	**-5.2%**	-39%
IL	**Israel**	172	176	159	166	130	136	114	134	105	**-5.1%**	-39%
DE	**Germany**	900	873	812	838	686	711	695	653	591	**-4.7%**	-34%
LT	**Lithuania**	253	239	218	262	256	241	235	175	121	**-4.5%**	-52%
SI	**Slovenia**	42	41	38	35	37	36	32	39	24	**-4.2%**	-43%
BG	**Bulgaria**	311	271	263	243	265	273	269	278	198	**-3.7%**	-36%
SK	**Slovakia**	197	198	198	199	166	205	216	202	111	**-2.1%**	-44%
AT	**Austria**	117	160	132	132	97	110	108	102	101	**-1.3%**	-14%
PL	**Poland**	1,866	1,987	1,878	1,986	1,756	1,802	1,951	1,882	1,467	**-0.9%**	-21%
RO	**Romania**	1,088	1,101	944	1,059	978	1,034	1,113	1,067	1,016	**-0.8%**	-7%
DK	**Denmark**	49	63	49	43	44	60	68	58	52	**2.0%**	6%
MT	***Malta***	*9*	*6*	*5*	*3*	*6*	*1*	*4*	*3*	*2*		
LU	***Luxembourg***	*11*	*6*	*7*	*12*	*2*	*10*	*7*	*6*	*12*		
	EU27*	**10,518**	**10,593**	**9,387**	**9,328**	**8,723**	**8,595**	**8,652**	**8,101**	**6,941**	**-4.16%**	**-34%**

Table 2 (Fig. 2). Pedestrians' deaths and annual average percentage change in pedestrian deaths over the period 2001-2009

**LU and MT are excluded from Fig. 2 because the numbers of pedestrian deaths in those countries are so small as to be subject to substantial random fluctuation.*

	Pedestrians' deaths as a % of all road deaths	Cyclists' deaths as a % of all road deaths	PTWs' deaths as a % of all road deaths	Share of deaths that were VRUs of all kinds taken together	Other deaths as a % of all road deaths
NO	11%	4%	15%	30%	70%
FI	13%	6%	12%	31%	69%
BE	11%	9%	14%	34%	66%
SE	12%	7%	15%	34%	66%
IE	20%	4%	10%	34%	66%
BG	25%	4%	6%	34%	66%
BE	15%	9%	11%	35%	65%
EE	24%	7%	6%	37%	63%
LU	20%	2%	17%	39%	61%
AT	16%	7%	17%	39%	61%
SK	32%	6%	2%	40%	60%
ES	16%	2%	22%	40%	60%
CZ	20%	9%	11%	41%	59%
SI	14%	8%	19%	41%	59%
FR	12%	3%	26%	42%	58%
DE	14%	10%	18%	42%	58%
PT	17%	4%	21%	42%	58%
NL	9%	19%	16%	44%	56%
MT	18%	2%	24%	44%	56%
LV	35%	6%	3%	44%	56%
DK	16%	12%	17%	45%	55%
LT	33%	9%	3%	45%	55%
IL	32%	3%	10%	45%	55%
EL	15%	1%	29%	45%	55%
UK	22%	4%	20%	46%	54%
HU	24%	12%	11%	47%	53%
IT	14%	7%	28%	48%	52%
PL	34%	8%	6%	49%	51%
CY	17%	4%	28%	49%	51%
RO	37%	6%	6%	49%	51%
CH	18%	10%	23%	51%	49%
EU	**20%**	**6%**	**17%**	**44%**	**56%**

Table 2d (Fig. 2d): Pedestrians, cycle users and PTW users' deaths as a percentage of all road deaths ranked by the share of deaths that were unprotected road users of all kinds taken together (2007-2009 average)

Code	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual % change
FI	59	53	39	26	43	29	22	18	20	**-14.1%**
LT*			85	87	85	68	73	38	34	***-11.2%***
SK**		61	71	65	54	48	56	23	20	***-10.2%***
LV	43	33	43	30	31	33	18	15	26	**-9.6%**
EE	18	19	15	9	12	18	14	10	7	**-8.1%**
EL	29	14	21	24	18	21	16	22	15	**-7.7%**
FR	256	223	201	177	180	181	142	148	162	**-7.5%**
SE	42	37	35	27	38	26	33	30	20	**-6.8%**
BE	128	105	109	78	71	91	90	86	86	**-6.7%**
HU	196	178	178	182	151	151	157	109	103	**-6.4%**
IL	161	147	133	140	134	112	120	100	100	**-5.9%**
ES	100	96	78	88	82	72	90	59	56	**-5.9%**
DK	56	52	47	53	41	31	54	54	25	**-5.6%**
BG	55	49	45	56	57	42	48	35	29	**-5.1%**
CZ	141	160	159	131	115	110	116	93	84	**-4.8%**
DE	635	583	616	475	575	486	425	456	462	**-4.8%**
NL	195	169	188	157	151	179	147	145	138	**-4.2%**
PT	50	58	63	47	48	40	34	42	29	**-4.2%**
PL	610	681	647	691	603	509	498	433	371	**-3.8%**
IT	366	317	350	319	331	307	349	288	294	**-2.7%**
AT	55	80	56	58	47	48	37	62	39	**-2.4%**
IE	12	18	11	11	10	9	15	13	7	**-2.2%**
UK	140	133	116	136	152	147	138	117	104	**-1.8%**
CH	38	26	48	42	37	35	30	27	54	**-0.6%**
SI	17	18	14	21	18	14	17	16	18	**-0.2%**
RO	145	132	156	130	206	198	179	179	157	**3.0%**
CY	*1*	*3*	*2*	*2*	*1*	*2*	*3*	*6*	*0*	
LU	*1*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*2*	
MT				*1*	*0*	*1*	*0*	*0*	*1*	
NO	*6*	*12*	*14*	*10*	*7*	*8*	*7*	*10*	*9*	
EU27***	**3,411**	**3,269**	**3,259**	**2,992**	**3,034**	**2,791**	**2,695**	**2,453**	**2,272**	**-4.3%**

Table 3 (Fig. 3): Cyclists' deaths and annual average percentage change in cyclists' deaths over the period 2001-2009

**LT 2003-2009, **SK 2002-2009. ***CY, LU and MT are excluded from Fig. 3 because the numbers of cyclist deaths in those countries are so small as to be subject to substantial random fluctuation. LT excluded from Fig.3. 2002 figure used for SK 2001.*

Code	2001	2002	2003	2004	2005	2006	2007	2008	2009	AAR	Reduction 2001/2009
PT	413	370	370	302	294	234	216	187	173	**-10.2%**	-58%
LV	21	30	17	22	13	17	13	13	8	**-7.9%**	-62%
IE	44	40	52	49	53	28	33	26	25	**-5.2%**	-43%
FR	1,542	1,450	1,276	1,205	1,248	1,106	1,177	1,108	1,187	**-4.7%**	-23%
SI	52	23	32	29	39	54	53	46	31	**-4.5%**	-40%
BE	194	209	159	146	148	156	159	126	160	**-4.4%**	-18%
DE	1,102	1,044	1,080	980	982	900	907	766	749	**-4.2%**	-32%
CH	110	94	114	119	91	75	81	86	82	**-4.0%**	-25%
NL	154	191	189	141	133	120	124	118	115	**-3.4%**	-25%
AT	137	130	146	135	130	126	110	110	113	**-2.4%**	-18%
ES	831	784	758	760	784	791	873	665	594	**-2.4%**	-29%
EL	505	398	364	437	464	501	469	435	433	**-2.1%**	-14%
UK	594	628	715	607	584	612	614	509	488	**-0.9%**	-18%
IT	1,266	1,216	1,407	1,446	1,375	1,344	1,419	1,296	1,173	**0.7%**	-7%
DK	52	59	65	67	44	42	80	69	41	**1.1%**	-21%
BG	50	60	50	49	65	47	47	70	49	**1.3%**	-2%
NO	33	43	37	41	35	37	40	37	29	**1.4%**	-12%
IL	32	41	40	31	39	36	36	46	33	**2.7%**	3%
HU	93	88	90	90	128	125	133	109	92	**2.8%**	-1%
PL	232	226	199	232	210	221	274	349	358	**3.2%**	54%
CZ	95	134	112	102	124	116	139	123	94	**3.5%**	-1%
CY	18	19	16	33	23	24	24	23	21	**4.4%**	17%
LT*	n/a	n/a	n/a	n/a	n/a	16	14	18	19	***4.5%***	19%
SE	42	43	53	66	47	67	67	62	53	**6.1%**	26%
FI	21	29	34	32	33	36	39	43	36	**10.4%**	71%
RO	12	20	21	17	38	70	138	221	186	**43.1%**	1450%
SK		*9*	*14*	*5*	*7*	*9*	*3*	*14*	*15*		
LU	*6*	*0*	*13*	*11*	*6*	*8*	*6*	*9*	*7*		
EE	*6*	*3*	*5*	*3*	*7*	*7*	*14*	*8*	*4*		
MT	*2*	*4*	*7*	*4*	*1*	*1*	*4*	*3*	*5*		
EU27**	**7,470**	**7,189**	**7,205**	**6,947**	**6,959**	**6,736**	**7,108**	**6,474**	**6,145**	**-1.9%**	**-18%**

Table 4 (Fig. 4). PTW deaths and annual average percentage change in PTW deaths over the period 2001-2009

**LT: 2006-2009. *EE, LU, MT and SK are excluded from Fig. 4 because the numbers of PTWs' deaths in those countries are so small as to be subject to substantial random fluctuation. LT excluded from Fig. 4 because of shorter timeline. 2002 figure used for SK 2001.*

Code	Country	PTWs' deaths	PTWs' serious injuries
AT	Austria	-2.4%	0.4%
BE	Belgium	-4.37%	-6.16%
BG	Bulgaria	1.3%	6.3%
CY	Cyprus	4.4%	-3.6%
DK	Denmark	1.1%	-3.1%
DE	Germany	-4.2%	-2.6%
EL	Greece	-2.1%	-8.6%
HU	Hungary	2.8%	4.7%
IE	Ireland	-5.2%	-14.2%
IL	Israel	2.72%	2.14%
LV	Latvia	-7.9%	-1.1%
MT	Malta	6.8%	-7.4%
NL	The Netherlands	-3.4%	0.3%
NO	Norway	1.4%	-1.8%
PL	Poland	3.2%	5.9%
PT	Portugal	-10.2%	-10.8%
SK	Slovakia	-0.5%	6.7%
SI	Slovenia	-4.5%	-3.7%
ES	Spain	-2.4%	-3.3%
SE	Sweden	6.1%	4.2%
CH	Switzerland	-4.0%	-0.5%
UK	United Kingdom	-0.2%	-3.1%
	EU	-1.9%	0.3%

Table 5 (Fig. 5). Average annual percentage change in PTW rider deaths (2001-2009) plotted against the average annual percentage change in PTW riders seriously injured (2001-2009).

Serious injuries: GB figures used for UK, LV (2004-2009), SK (2002-2009).
CZ, EE, FI, IT, LT, UK: Data on PTW riders seriously injured is not available.
France is excluded from Fig.5 because of the change in the definition of seriously injured in 2005.

Code	PTW rider deaths (2009)	PTW vehicle km ridden (in billions)	PTW rider deaths per billion km-ridden	notes
NO	29	1.22	24	
CH	82	2.40	34	
IL	33	0.93	36	
FI	36	0.90	40	
DE*	766	15.80	48	2008
SE	53	1.06	50	
DK*	42	0.76	55	2006
LV	8	0.10	78	
IE	25	0.32	78	
AT*	110	1.31	84	2008
UK	488	5.14	95	
EE	4	0.04	100	
ES*	791	7.90	100	2006
FR	1,187	10.10	118	
BE*	160	1.32	121	
SI	31	0.12	250	
CZ*	116	0.28	409	2006
RO	186	0.26	704	
EU	**3,943**	**45.42**	**87**	

Table 6 (Fig. 6): Powered two-wheeler rider deaths per billion km ridden in 2009 (or last year available)

** AT, BE (2008). PTW km ridden data is available up to 2008; CZ, DK, ES, (2006).*

[1]BE, UK: Mopeds not included as km ridden available only for motorcycles

Ranked	mopeds (<50ccm)	motorcycles (>50ccm)
CZ	3%	97%
UK*	4%	96%
LU	5%	95%
EL	8%	92%
CH	9%	91%
SK	9%	91%
BG	11%	89%
DE	13%	87%
NO	13%	87%
IL	15%	85%
SE	18%	82%
SI	18%	82%
BE	19%	81%
IT	21%	79%
PL	22%	78%
AT	23%	77%
LT	24%	76%
LV	24%	76%
HU	24%	76%
FR	26%	74%
ES	27%	73%
CY	29%	71%
FI	30%	70%
PT	35%	65%
NL	44%	56%
EE	46%	54%
DK	48%	52%
RO	57%	43%
EU	**21%**	**79%**

Table 7 (Fig. 7) Moped rider deaths as a percentage of total PTW rider deaths (2007-2009 average).

**2006-2008.*

Country	Helmet wearing rate	Notes
Slovakia	100%	*Estimation from PIN Panelist*
Switzerland	100%	*Estimation from PIN Panelist*
Ireland	100%	*Estimation from PIN Panelist*
Finland	99%	*Estimation from PIN Panelist*
Portugal	99%	*2004*
Spain	99%	
Germany	98%	
Latvia	97%	
France	96%	
Denmark	95%	*2008*
Italy	95%	
Romania - Riders	93%	
Greece	75%	
Romania -Passengers	71%	
Cyprus	68%	
Italy	*~68%*	Istituto Superiore di Sanità. 68% as an average for Italy: 90% in the North and Centre and 20% in the South.

Table 8. PTW helmet wearing rate estimates for countries where data is available
Source: PIN Panelists

Code	Country	2009	notes
IE	**Ireland**	40%	*2009*
CH	**Switzerland**	38%	*2009*
AT	**Austria**	35%	*2009*
UK	**United Kingdom**	34%	*2008*
FI	**Finland**	31%	*2008*
SE	**Sweden**	27%	*2009*
IL	**Israel**	17%-28%	*2009*
SK	**Slovakia**	17%	*2009*
DK	**Denmark**	15%	*2008*
DE	**Germany**	11%	*2009*

Table 9. Cycle helmet wearing rate estimates for countries where data is available
Source: PIN Panelists

	Are bicycle helmets mandatory?	Are reflective jackets mandatory?	Source: EC, DG MOVE, Going abroad http://ec.europa.eu/transport/road_safety/going_abroad/index_en.htm and national data from PIN panelists
	No	No	
BE	Recommended	Recommended	
BG	No	No	
CY	No	No	
CZ	Yes*	Recommended	*Mandatory for <18. Recommended for others
DK	No	No	
EE	Yes*	n/a	*Mandatory for <16. Recommended for others
FI	Yes*	No	*However, no enforcement
FR	No	Yes*	*Outside urban areas at night or when visibility is poor (for driver and passengers)
DE	No	No	
GR	No	No	
HU	No	Yes*	*For both driving a bicycle or pushing it, on roads outside built up areas at night-time and at res
IE	No	No	
IL	Yes	No	
IT	No	Yes*	*Extra-urban areas and in case of poor visibility
LV	Recommended	Recommended	
LT	Yes*	Yes**	*For cyclists < 18 years; recommended for older people. **At night-time and when visibility is p
LU	No	No	
MT	Recommended	YES*	*In the darkness
NL	Recommended	No	
NO	No	No	
PL	No	No	
PT	No	No	
RO	Recommended	No	
SK	Yes*	No**	*For cyclists <15 years. Only outside urban areas for cyclists >15 years; **Mandatory when visi
SI	Yes	No	*For cyclists under 14 years
ES	Yes*	No	*Only outside build up areas. Not compulsory in case of high temperature or long upward slopes
SE	Yes*	No**	are when cycling in the dark.
SE	No	No	
UK	No	No	

Table 10. Safety equipment requirements for cyclists