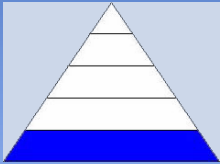


Romania



Structure and Culture

- **Basic data**

Table 1: Basic data of Romania in relation to the European average. (Sources: [1] OECD/ITF, 2011; [2] Eurostat; [3] DG-TREN, 2005; [4] CIA; [5] national sources).

Basic data of Romania	European average
– Population: 21.5 million inhabitants (2010)	17.1 million (2010 ⁱ) [1,2]
– Area: 230 000 km ² (2010) (3.6% water) (2010)	156 225 km ² (2010) [1,3] 3% water (2010) [4]
– Climate and weather conditions (capital city; 2010): Average winter temperature (Nov. to April): 7°C Average summer temperature (May to Oct.): 17°C Annual precipitation level: 728 mm	(2010) 6°C 16°C 747 mm
– Exposure: 73.3 billion vehicle km (2010) (74% passenger cars, 24% goods motor vehicles, 1% busses) [5]	168 billion vehicle km (2010 ⁱⁱ) [1]
– 0.19 motorised vehicles per person (2008)	0.7(2010 ⁱⁱⁱ) [1,2]

Romania has a low GDP per capita and few vehicles per person.

- **Country characteristics**

Table 2: Characteristics of Romania in comparison to the European average. (Sources: [1] OECD/ITF, 2011; [2] Eurostat; [3] national sources).

Characteristics of Romania	European average
– Population density: 93 inhabitants/km ² (year)	110 inhabitants km ² (2010 ⁱ) [1,2,3]
– Population composition (year): 15% children (0-14 years), 70% adults (15-64 years), 15% elderly (65 years and over)	16% children, 67% adults, 17% elderly (2009 ⁱⁱⁱ) [1,2]
– Gross Domestic Product (GDP) per capita: €5 700 (2010)	€26 100 (2010) [1,2]
– 37% of population lives inside urban area (year)	42% (2010 ^{iv}) [1,2]
– Special characteristics: about 25% of the roads in Romania is well passable and the motorway network is small but still expanding.	



ⁱ Based on 30 European countries; data of HU = 2009.

ⁱⁱ Based on 15 European countries (excl. BG, CY, EE, EL, ES, HU, IT, LT, LU, LV, MT, PL, PT, RO, SK); data of CZ, IE, SE, NO (2009); data of AT, BE, DK (2008); Data of UK (2006); data of NL (2003).

ⁱⁱⁱ Based on 27 European countries (excl. LT, NO, PL); data of BE, UK (2008).

^{iv} Based on 29 European countries (excl. IS).

Road Safety Country Overview-Romania

- **Structure of road safety management**

- Policy making is centralized in Romania.

The following key actors are responsible for road safety management:

Table 3: Key actors per function in Romania. (Sources: DG-TREN, 2010; national sources)

Key functions	Key actors
1. <ul style="list-style-type: none"> – Formulation of national RS strategy – Setting targets – Development of the RS programme 	<ul style="list-style-type: none"> – Ministries of Transport, Internal Affairs, Education, Environment, Economy, Finances, Communication, Public Health; – Public administration authorities with responsibilities in road safety.
2. Monitoring of the RS development in the country	The Inter-ministerial Council for Road Safety (CISR)
3. Improvements in road infrastructure	The National Company for Motorways and National Roads (NCMNR)
4. Vehicle improvement	Ministry of Transport
5. Improvement in road user education	The Traffic Police
6. Publicity campaigns	The Traffic Police
7. Enforcement of road traffic laws	Ministry of Administration and Internal Affairs and the Traffic Police
8. Other relevant actors	No information

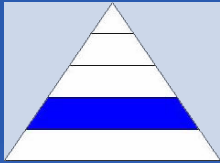
- **Attitudes towards risk taking**

- As Romania is not part of the SARTRE-surveys, there is no information on attitudes that is comparable to other European countries.

Road safety policy is centralized in Romania with the Ministry of Transport as the main responsible.



Road Safety Country Overview-Romania



The national road safety plan of Romania has not yet been approved.

Romania has already implemented road safety audits and inspections.

Programs and measures

- **National strategic plans and targets**

- The national road safety plan of Romania has not yet been approved in parliament.
- Targets (referred to 2010):

Table 4: Road safety targets for Romania

Year	Fatalities and seriously injured
2020	-50%

- Priority topics from the document of public policies who have defined RS measures:
 - Measures based on human factor insights,
 - Strengthening and consolidating the institutional capacity,
 - Training and examination of drivers,
 - Improving psychological evaluation,
 - Law enforcement,
 - Vehicle and road infrastructure safety,
 - Mobility in transport.

(Source: DG-TREN, 2010; national experts)

- **Road infrastructure**

Table 5: Description of the road categories and their characteristics in Romania (Source: TiS.PT, 2003).

Road type	Speed limit (km/h)
Urban roads	50
Rural roads	90/100
Motorways	130

- Special rules for:
 - Light motorcycles (A1): no information on the speed limit
- Guidelines and strategic plans for infrastructure in Romania: no information

Table 6: Obligatory parts of infrastructure management in Romania and other European countries. (Sources: DG-TREN, 2010).

Obligatory parts in Romania:	European countries with obligation
Safety impact assessment: -	-
Road safety audits: yes	50%
Road safety inspections: yes	60%
Black spot treatment: -	47% ^v

- Recent infrastructural actions have been addressing: no information.



^v Based on data of 18 countries (excl. AT, BE, CH, CZ, FI, FR, HU, IE, MT, NO, RO, SE).

Road Safety Country Overview-Romania

Traffic laws and regulations

Table 7: Description of the regulations in Romania in relation to the most common regulations in other European countries. (Sources: [1] DG-TREN, 2005; [2] national sources; [3] DG-TREN, 2010)

Regulations in Romania	Most common in Europe (% of countries)
Allowed BAC level: 0‰; – Novice drivers: 0‰; – Professional drivers: 0‰.	0.5‰ (60%) 0.5‰ and 0.2‰ (both 30%) 0.5‰ (30%) [1,2]
Phoning: – Hand held: prohibited – Hands free: allowed	Not allowed (97%) [2,3] -
Use of restraint systems: – Driver: obligatory – Front passenger: obligatory – Rear passenger: obligatory – Children: obligatory	Obligatory (all countries) Obligatory (all countries) Obligatory (all countries) Obligatory on all seats (73%) [2,3]
Helmet wearing: – Motor riders: obligatory – Moped riders: obligatory – Cyclists: recommended	Obligatory (all countries) Obligatory (all countries) Recommended (25% ^{vi}) [2,3]
– Mandatory DRL on motorways, expressways and E-roads [3].	

Romania has a zero tolerance for drink-driving.

Enforcement

Table 8: Effectiveness of enforcement effort in Romania according to an international respondent consensus (scale = 0-10) (Source: DG-TREN, 2010)

Issue	Score for Romania	Most common in Europe (% of countries)
Speed legislation enforcement	7	7 (35%)
Seat-belt law enforcement	8	7 (43%) ^{vii}
Child restraint law enforcement	5	6 (27%) ^{viii}
Helmet legislation enforcement	7	9 (39%) ^{ix}

Seat-belt law enforcement is somewhat above average in Romania, other issues are at or below average.

Table 9: Performance of enforcement effort in Romania according to an international respondent consensus (scale = is good, is improving, needs to do more) (Source: DG-TREN, 2010)

Issue	Score for Romania	Most common in Europe (% of countries)
Speeding	is improving	Is improving (50%)
Drink driving	is improving	Is improving (79%) ^{ix}
Seat belt use	is improving	Is improving (52%) ^x



^{vi} Based on data of 24 countries (excl. CH, CY, HU, LU, NO, PT).

^{vii} Based on data of 23 countries (excl. DE, DK, IE, IS, LU, NL and UK).

^{viii} Based on data of 22 countries (excl. DE, DK, IE, IS, LU, NL, RO and UK).

^{ix} Based on data of 24 countries (excl. BG, CH, IS, NO, PL and RO).

^x Based on data of 25 countries (excl. BG, CH, IS, NO and RO).

Road Safety Country Overview-Romania

• Road user education and training

Table 10: Road user education and training in Romania, compared to the situation in other European countries. (Sources: [1] ROSE25, 2005; [2] ETSC, 2011a; [3] national sources)

Education and training in Romania	Most common in Europe (% of countries)
General education programmes: – Primary school: provided – Secondary school: provided – Other groups: no special groups	Compulsory (65% ^{xi}) Compulsory (50% ^{xii}) [1,2] -
Driving licences thresholds: – Passenger car: 18 years – Motorised two wheeler: 18 (21) years – Busses and coaches: 21 years – Lorries and trucks: 21 years	18 years (79%) 18 years (low categories) and higher ages for faster vehicles (66%) 21 years (76% ^{xiii}) 21 years (79% ^{xiv}) [2,3]

• Public campaigns

Table 11: Public campaigns in Romania, compared to the situation in other European countries. (Sources: SUPREME, 2007; national sources)

Campaigns in Romania	Most common issues in Europe (% of countries)
Organisation: – The Traffic Police	
Main themes: – No information available	Drink-driving (83%) Seat-belt (73%) Speeding (53%)

• Vehicles and technology (national developments)

Table 12: Developments of vehicles and technology in Romania, compared to the situation in other European countries. (Sources: TiS.PT, 2003; national sources)

Mandatory technical inspections	Most common in Europe (% of countries)
Passenger cars: no information	Every 12 months (41%)
Motor cycles: no information	Every 12 months (35%)
Busses or coaches: no information	Every 12 months (41%)
Lorries or trucks: no information	Every 12 months (41%) ^{xv}

National road safety campaigns are organised by the traffic police in Romania.

There is no information on mandatory inspection periods in Romania.



^{xi} Based on data of 26 countries (excl. BG, CH, NO and RO).

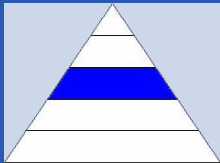
^{xii} Based on data of 24 countries (excl. BG, CH, MT, NO, RO and SK).

^{xiii} Based on data of 29 countries (excl. NO).

^{xiv} Based on data of 28 countries (excl. IE and NO).

^{xv} Based on data of 17 countries (excl. BG, CH, CY, CZ, EE, HU, LT, MT, NO, RO, SI, SK).

Road Safety Country Overview-Romania



Mean speed increased slightly between 2007 and 2010 in Romania.

Road Safety Performance Indicators

• Speed

Table 13: Number of speed checks in Romania versus the European average (Source: ETSC, 2010)

Measure	2006	2008	% change	European average (2008)
Number of tests/1000 population	Not available	Not available	Not available	90.8 ^{xvi}

Table 14: Percentage of speed offenders per road type in Romania compared to the European average (Source: national sources)

Road type	2001	2009	Average annual change	European average (year)
Motorways	Not available	17%	Not available	Not available
Rural roads	Not available	19%	Not available	Not available
Urban roads	Not available	Not available	Not available	Not available

Table 15: Mean speed per road type in Romania compared to the European average (Source: national sources)

Road type	2007	2010	Average annual change	European average (year)
Motorways	113 km/h	123 km/h	3%	Not available
Rural roads	64 km/h	66 km/h	1%	Not available
Urban roads	32 km/h	33 km/h	1%	Not available

• Alcohol

Table 16: Road side surveys for drink-driving in Romania compared to the European average (Source: ETSC, 2010)

Measure	2006	2008	% change	European average (2008)
Number of tests/1000 population	Not available	Not available	Not available	145.8 ^{xvii}
% tested over the limit	Not available	Not available	Not available	Not available

There is no information in drink-driving in Romania.



^{xvi} Based on data of 21 countries (excl. BE, CH, DE, EE, IE, IS, MT, PT and UK).

^{xvii} Based on data of 17 countries (excl. BE, BG, CH, CZ, DE, IS, LU, LV, MT, NL, RO, SK and UK.).

Road Safety Country Overview-Romania

• Vehicles

Table 17: State of the vehicle fleet in Romania compared to the European average (Source: ETSC, 2009)

Vehicle fleet in Romania	European average
Cars per age group (year): <ul style="list-style-type: none"> - 18% ≤ 2 years, - 18% 2 to 5 years, - 21% 6 to 10 years, - 43% > 10 year. 	Passenger cars (2009) ^{xviii} 12% ≤ 2 years, 19% 2 to 5 years, 27 % 6 to 10 years, 42% >10 years
EuroNCAP occupant protection score of cars (new cars sold in 2008): <ul style="list-style-type: none"> - 5 stars: no information - 4 stars: no information - 3 stars: no information - 2 stars: no information Average score: 26.3 (75.1% of maximum of 35 points). This is 4.6 points less than the EU-27 average.	49% 35% 6% 1% ^{xix}

The share of cars newer than 2 years and older than 10 years in Romania is somewhat higher than the European average.

• Protective systems

Table 18: Protective system use in Romania versus the average in Europe (Source: Vis & Eksler, 2008; national sources; ETSC, 2011b)

Use of protective systems in Romania	European average
Daytime seat belt wearing in cars and vans (2010): <ul style="list-style-type: none"> - 48% front, - 47% % driver - 49% front passenger - No information on % rear, - No information on % child restraint systems 	(2007) 85% front ^{xx} , Not available Not available 60% rear ^{xxi} , Not available
Helmet use: <ul style="list-style-type: none"> - No information on % motor rides, - No information on % moped riders, - 93% PTW riders - 71% PTW passengers - No information on % cyclists 	Not available Not available - - Not available

Helmet wearing rate for PTW riders is quite high in Romania, but seat-belt wearing rates are low.



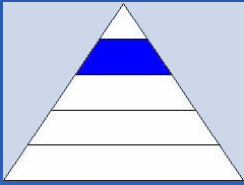
^{xviii} Based on data of 22 countries (excl. BG, DK, EL, FR, IS, MT, PT and SK).

^{xix} Based on data of 27 countries (excl. CY, IS and MT).

^{xx} Based on data of 25 countries (excl. AT, EL, IS, LT and RO); data of SK (2008); data of BE, CH, DK, IE, MT, NL (2006); data of HU, IT, NO, PT (2005); data of LU (2003)

^{xxi} Based on data of 22 countries (excl. CY, EL, ES, IS, IT, LT, RO and SK); data of BE, CH, DK, IE, MT, NL (2006); data of HU, NO, PT (2005); data of LU (2003).

Road Safety Country Overview-Romania



Road Safety Outcomes

- General positioning

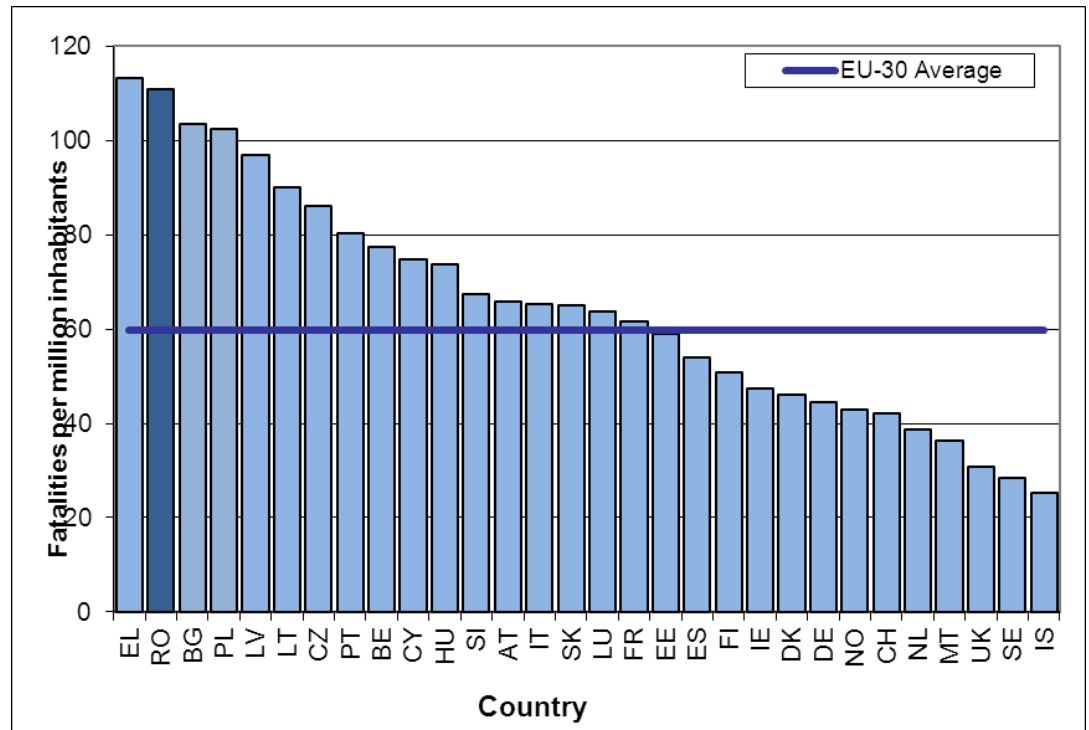


Figure 1: Fatalities per million inhabitants (2010). (Source: CARE, Eurostat).

Romania is one of the worst performing countries and the number of fatalities per inhabitants has recently increased and only shows a decrease last two years.

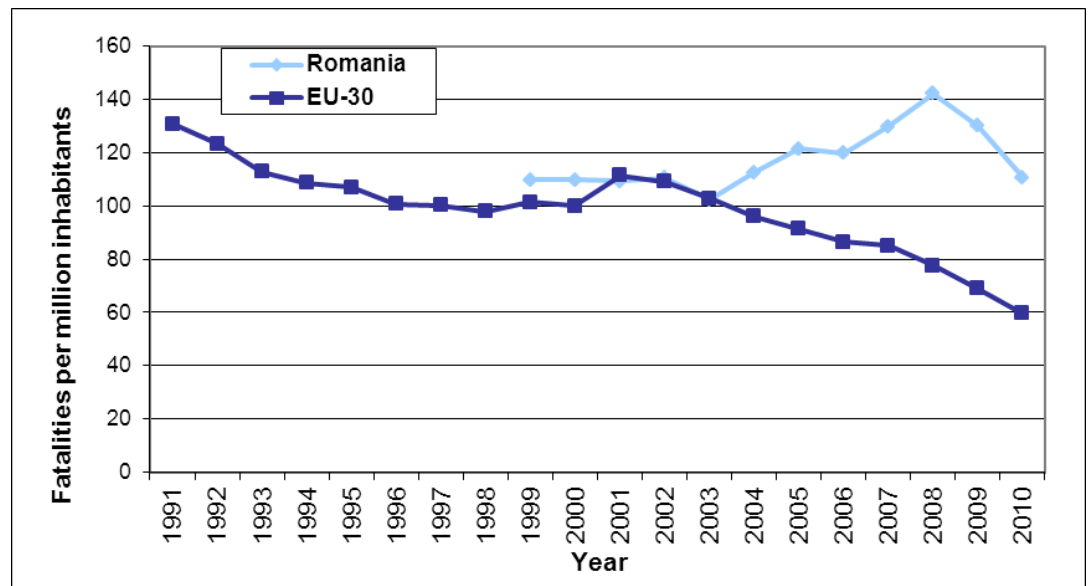


Figure 2: Development of fatalities per million inhabitants between 1991 and 2010. (Source: CARE, Eurostat).



Road Safety Country Overview-Romania

The share of pedestrian fatalities in Romania is double the EU average. The share of motorcyclists is much lower than average.

Fatalities among men aged 50 to 64 years are overrepresented in Romania.

Much more fatalities in Romania occur inside built-up areas.



• Transport mode

Table 19: Reported fatalities by mode of road transport in Romania compared to the European average of the last year available (Source: CARE, national sources).

Transport mode	2001	2009	Average annual change	% in 2009	European average (2009 ^{xxii})
Pedestrians	1 088	1 015	-12%	36%	18%
Car occupants	933	1 168	-8%	42%	47%
Motorcyclists	9	74	26%	3%	13%
Mopeds	4	122	233%	4%	2%
Cyclists	145	157	-8%	6%	5%
Bus/coach occupants	15	36	62%	1%	<1%
Lorries or truck occupants	144	96	-14%	3%	4%

• Age, gender and nationality

Table 20: Reported fatalities by age, gender and nationality in Romania versus the European average of the last year available (Source: CARE, national sources).

Age and gender	2001	2009	Average annual change	% in 2009	European average (2009 ^{viii})
Females					24%
0-14 years	67	39	-13%	1%	1%
15 – 17 years	21	20	-9%	1%	1%
18 – 24 years	75	109	-6%	4%	4%
25 – 49 years	172	181	-10%	6%	7%
50 – 64 years	87	125	-6%	4%	3%
65+ years	157	220	-6%	8%	7%
Males					
0-14 years	120	86	-13%	3%	2%
15 – 17 years	35	38	-8%	1%	2%
18 – 24 years	236	307	-7%	11%	13%
25 – 49 years	835	819	-11%	29%	31%
50 – 64 years	385	472	-8%	17%	12%
65+ years	260	373	-7%	13%	12%
Nationality of driver or rider killed					
National	21	12	-13%	0%	Not available
Non-national	0	1	-	0%	Not available

• Location

Table 21: Reported fatalities by location in Romania compared to the European average of the last year available (Source: CARE, national sources).

Location	2001	2009	Average annual change	% in 2009	European average (2009 ^{viii})
Built-up areas	1 841	1 756	-11%	63%	33%
Rural areas	609	1 040	-5%	37%	49%
Motorways	10	25	14%	1%	5%
Junctions	71	255	21%	9%	12%

^{xxii} Based on data of 28 countries (excl. NO, LT); data of FR, IE, MT, SE (2008).

Road Safety Country Overview-Romania

• Lighting and weather conditions

Table 22: Reported fatalities by lighting and weather conditions in Romania compared to the European average of the last year available (Source: CARE, national sources).

Conditions	2001	2009	Average annual change	% in 2009	European average (2009 ^{xxiii})
Lightning conditions					
During daylight	1 130	1 255	-8%	45%	55%
During nighttime	1 149	1 077	-11%	39%	39%
Weather condition					
While raining	88	254	19%	9%	10%

• Single vehicle crashes

Table 23: Reported fatalities by type in Romania compared to the European average of the last year available (Source: CARE, national sources).

Crash type	2001	2009	Average annual change	% in 2009	European average (2009 ^{VIIIxxiv})
Single vehicle crash	1 006	772	-12.7%	28%	40%

• Under-reporting of casualties

- Fatalities: 100% (2009). This amount is suspected since adequate alternative registration systems are missing for a check.
- Hospitalised: no information.

(Source: CARE)

Fatalities due to single vehicle crashes are much lower in Romania than on average in Europe.



^{xxiii} Based on 25 countries (excl. IE, IT, LT, NO, SI); data of AT, BE, DK, EE, FI, FR, MT, SE (2008).

^{xxiv} Based on 27 countries (excl. IE, LT, NO); data of AT, BE, DK, EE, FI, FR, MT, SE (2008).

Road Safety Country Overview-Romania

- Risk figures

PTW riders have a 7 to 45 times higher fatality risk than car occupants in Romania. Also youngsters and elderly have higher risks.

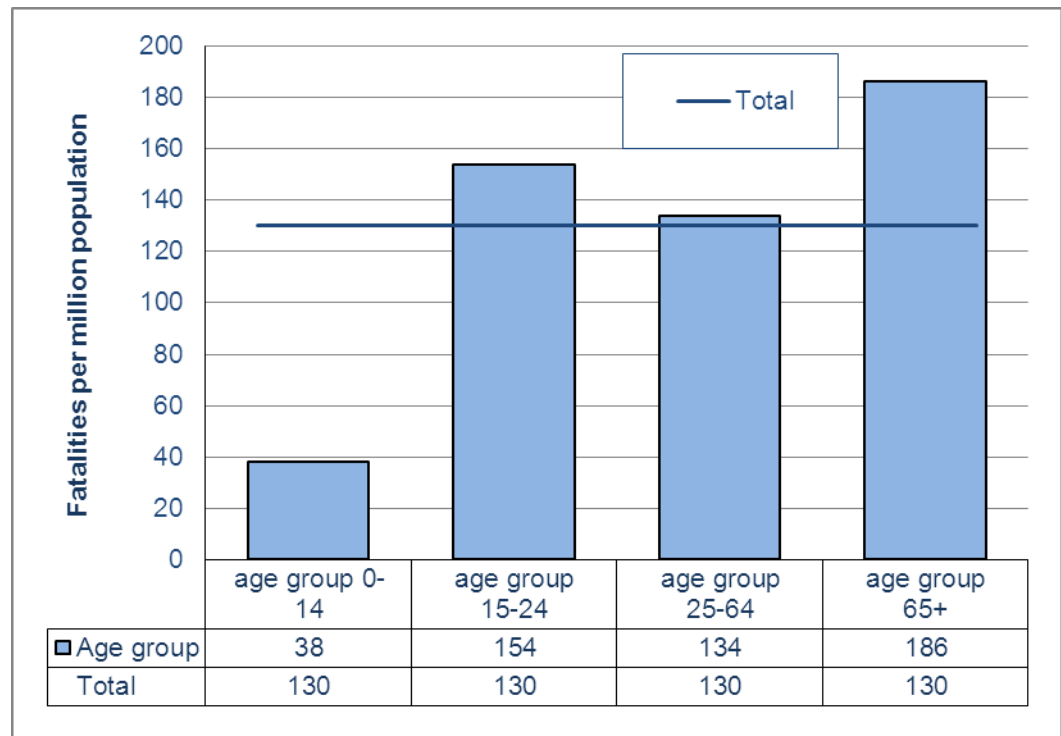


Figure 3: Fatalities in Romania by number of inhabitants in 2009 (Sources: CARE, OECD/ITF, 2011).

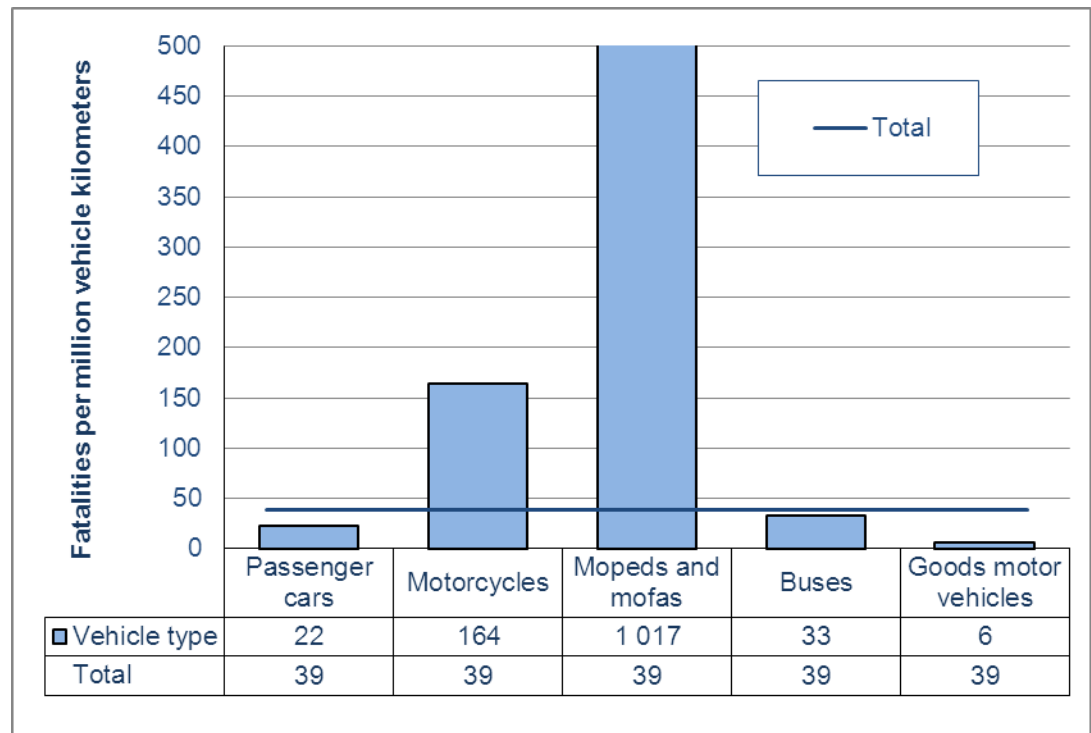
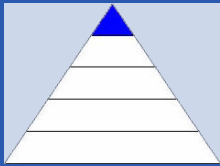


Figure 4: Fatality per million vehicle km per road type for Romania in year (Sources: CARE, Eurostat).



Road Safety Country Overview-Romania



Social Cost

- The total cost of road crashes (fatalities and injuries): 1.2 billion euros (2007)
- Percentage of GDP: 0.97%.

Table 24: Cost (in million Euro) per injury type in Romania versus the European average (Source: Bickel et al., 2006).

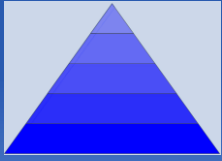
Injury type	Value	European average ^{xxv}
Fatal	No information	1.28
Hospitalised	No information	0.18
Slightly injured	No information	0.02

About 1% of the GDP of Romania is related to severe road safety crashes



^{xxv} Based on data of 20 countries (excl. BG, DE, FI, FR, HU, IS, LT, NO, RO and SK).

Road Safety Country Overview-Romania



Motorcycle and pedestrian safety are major issues in Romania.

Synthesis

- **Safety position**

- Romania is the second worst performing country in Europe in terms of road safety, with more than 100 fatalities per population (EU average is 60). There were 2377 fatalities on 2010.

- **Scope of problem**

- Pedestrian fatalities are over-represented in Romania, taking up 36% of total fatalities (EU average is 18%).
- Moped and motorcycle fatalities have significantly increased between 2001 and 2010, and the risk of those groups is many times higher compared to passenger cars.
- Fatalities among men aged 50 to 64 years are overrepresented in Romania. Youngsters and elderly have the highest risks to die as a result of a road crash in Romania.
- Much more fatalities in Romania occur inside built-up areas.
- Mean speed increased slightly between 2007 and 2010 in Romania.
- Seat-belt wearing rates are low in Romania.

- **Recent progress**

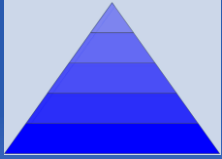
- Fatalities presented a strong increasing trend during the period 2003-2008, which was then inverted to a decreasing trend. The overall reduction during the last decade was 3%.

- **Remarkable road safety policy issues**

- National road safety plans and targets exist (i.e. halving the number of road crashes by 2010 compared to 2002), however, the national road safety plan was not formally endorsed in Romania.
- Romania has already implemented road safety audits and inspections.
- Romania has a zero tolerance for drink-driving.
- Seat-belt law enforcement is somewhat above average in Romania, other issues are at or below average.
- National road safety campaigns are organised by the traffic police in Romania.



Road Safety Country Overview-Romania



Literature

- Bickel, P. et al (2006) HEATCO deliverable 5. Proposal for harmonised guidelines. EU-project developing harmonised European approaches for transport costing and project assessment (HEATCO). Institut für Energiewissenschaft und Rationelle Energieanwendung, Stuttgart.
- CARE database
- CIA database
- DG-TREN (2005) Road safety country profiles (on website http://ec.europa.eu/transport/road_safety/observatory/country_profiles_en.htm)
- DG-TREN (2010). *Technical Assistance in support of the Preparation of the European Road Safety Action Program 2011-2020. Final Report.* DG-TREN, Brussels
- ETSC (2009). *Boost the market for safer cars across Europe. + Background tables* PIN Flash no.13. ETSC, Brussels
- ETSC (2010). *Tackling the three main killers on the road. A priority for the forthcoming EU Road Safety Action Program + Background tables.* PIN Flash no.16. ETSC, Brussels
- ETSC (2011a) www.etsc.eu/faq.php (FAQ on driving licensing has been removed now)
- ETSC (2011b) *Fifth road safety PIN report 2011.* PIN report 19. ETSC, Brussels
- Eurostat database
- National sources: via CARE national experts
- OECD/ITF (2011). *IRTAD Road Safety 2010. Annual Report.* OECD/ITF, Brussels
- ROSE25 (2005). *Inventory and compiling of a European good practice guide on road safety education targeted at young people. Final report.* KfV, Vienna
- SUPREME (2007) Final Report Part F1. Thematic Report: Education and Campaigns. European Commission, Brussels.
- TiS.PT (2003). *Study on Road Traffic Rules and Corresponding Enforcement Actions in the Member States of the European Union.* European Commission Directorate-General Energy and Transport, Brussels.
- Vis, M.A. and Eksler, V. (Eds.) (2008) *Road Safety Performance Indicators: Updated Country Comparisons.* Deliverable D3.11a of the EU FP6 project SafetyNet.

