



Road Safety Country Overview





Structure and Culture

Basic Data

Table 1: Basic data of Romania in relation to the EU average

Basic data of Romania	EU average
- Population: 19,76 million inhabitants (2016) [2]	18,2 million (2016)
- Area: 238.391 km ² (2015) [2]	159.663 km ² (2015)
(Water 3,57%) (2015)[4]	2,94% water (2015)
- Climate and weather conditions (capital city; 2015)[3]:	(2015)
Average winter temperature (Nov. to April):3,7°C	5,1°C
 Average summer temperature (May to Oct.): 18,6°C 	16,6°C
- Annual precipitation level: 595 mm	691,5 mm
- Exposure ¹ : 99.250 million passenger km (2014)	168.260 million vehicle
[2]	km (2015)
- 0,31 vehicles per person (2015) [2]	0,57 (2015)
Sources: [1] IRTAD: [2] EUROSTAT: [3] national sources: [4] CIA:	

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

Country characteristics

Table 2: Characteristics of Romania in comparison to the EU average

Characteristics of Romania	EU average
- Population density: 86,1 inhabitants/km² (2015)	114 inhabitants/km ²
[2]	(2015)
- Population composition (2015) [2]:	
15,5% children (0-14 years)	15,6% children
67,5% adults (15-64 years)	65,6% adults
17,0% elderly (65 years and over)	18,9% elderly (2015)
- Gross Domestic Product (GDP) per capita:	
€8.095 (2015)[2]	€27.198 (2015)
- 54,6% of population lives inside urban area	72,6% (2015)
(2015)[4]	
- Special characteristics [4]: about 25% of the	
roads in Romania is well passable and the	
motorway network is small but still expanding	
Sources: [1] IRTAD; [2] EUROSTAT; [3] national sources; [4] CIA	

 $^{^{1}}$ No data available for traffic. Exposure is measured by billion passenger kilometres instead.



Structure of road safety management

Policy making is centralised in Romania.

The following key-actors are responsible for Road Safety (RS) policy making:

Table 3: Key actors per function in Romania

Key functions	Key actors
1 Formulation of national RS strategy - Setting targets - Development of the RS	- The Sectoral Operational Programme "Transport" - Romanian Road Authority - Ministry of Transports and Infrastructure - Directorate for Road Transport Ministry of Transports and Infrastructure
programme	- Directorate for Road Transport
2. Monitoring of the RS development in the country	- Romanian Road Authority
3. Improvements in road infrastructure	- Romanian Road Authority
4. Vehicle improvement	- Romanian Automotive Register
5. Improvement in road user education	- Romanian Road Authority - Road Traffic Assistance Association
6. Publicity campaigns	- Traffic Police
7. Enforcement of road traffic laws	- The Traffic Police (under Ministry of Administration and Interior)
8. Other relevant actors	

Road safety policy is centralised in Romania.

Attitudes towards risk taking

Sources: national sources

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



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

Programmes and measures

National strategic plans and targets

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

Table 5: Road safety targets for Romania

Year	Fatalities		
2020	-50%		

- Priority topics:
- 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

(Sources: DG-TREN, 2010; national sources)

Road infrastructure

Table 6: Description of the road categories and their characteristics in Romania

Nomenta				
Road type	General speed limits for passenger cars (km/h)			
Urban roads	50			
Rural roads	90/100			
Motorways	130			

Source: EC DG-Move, 2017

- Special rules for: no information
- Guidelines and strategic plans for infrastructure: no information

Table 7: Obligatory parts of infrastructure management in Romania and other EU countries

Obligatory parts in Romania:	EU countries with obligation
Safety impact assessment: -	32%
Road safety audits: yes	81%
Road safety inspections: yes	89%
High risk site treatment: -	74%

Sources: DG-TREN, 2010; national sources

• Recent activities of road infrastructure improvement have been addressing: no information

Romania has already implemented road safety audits and inspections.



Traffic laws and regulations

Table 8: Description of the regulations in Romania in relation to the most common regulations in other EU countries

common regulations in other to countries					
Regulations in Romania [1]	Most common in EU (% of countries)				
Allowed BAC ² levels:					
- General population: 0,0‰	00,5‰ (61%)				
- Novice drivers: 0,0‰	0,2‰ (39%) and 0,0‰ (36%)				
- Professional drivers: 0,0‰	0,2‰ (36%) and 0,0‰ (36%)				
Phoning:					
- Hand held: not allowed	Not allowed (all countries)				
- Hands free: allowed	Allowed (all countries)				
Use of restraint systems:					
- Driver: obligatory	Obligatory (all countries)				
- Front passenger: obligatory	Obligatory (all countries)				
- Rear passengers: obligatory	Obligatory (all countries)				
- Children: obligatory	Obligatory (all countries)				
Helmet wearing:					
- Motor riders: Obligatory	Obligatory (all countries)				
- Moped riders: Obligatory	Obligatory (all countries)				
- Cyclists: not obligatory	Not obligatory (46%)				
- Daytime running lights are mandatory on					
national roads, motorways and					
expressways.					
- A demerit point system is in place. [2]					

Sources: [1] EC DG-Move, 2017; [2] WHO, 2013

Romania has a zero tolerance for drink-driving.

Enforcement

Table 9: Effectiveness of enforcement effort in Romania according to an international respondent consensus (scale = 0-10)

Issue	Score for Romania	Most common in EU (% of countries)
Speed legislation enforcement	5	7 (43%)
Seat-belt law enforcement	7	7 (25%) and 8 (25%)
Child restraint law enforcement	7	8 (39%)
Helmet legislation enforcement	9	9 (50%)
Drink-driving law enforcement	8	8 (43%)

Source: WHO, 2015

Child restraint and speed law enforcement are below average in Romania.

² Blood Alcohol Concentration



Road User Education and Training

Table 10: Road user education and training in Romania compared to the situation in other FU countries

Education and training in Romania	Most common in EU (% of countries)			
General education programmes:				
- Primary school: provided- Secondary school: provided- Other groups: no special groups.	Compulsory (71%) Compulsory (43%) -			
Driving licences thresholds:				
 Passenger car: 16 years for B1 category; 18 years for B category Motorised two wheeler: 16 years for AM and A1 categories; 18 years for A2 category; 20/24 years for A category Buses and coaches: 21years Lorries and trucks: 24 years 	18 years (82%) 16 years for low categories (68%) and 18 years for higher categories (64%) 21 years (89%) 21 years (71%)			

Sources: [1] ROSE25, 2005; [2] national sources; [3] EC website

Road user education in Romania is provided at schools, but it is not compulsory.

Public Campaigns

Table 11: Public campaigns in Romania compared to the situation in other EU countries

Campaigns in Romania	Most common issues in EU (% of countries)
Organisation:	
- CISR	
- CNADNR	
- The Traffic Police	
- NGOs	
Main themes:	
- speed	
- fatigue	Drink-driving (96%)
- children	Speeding (86%)
- drink-driving	Seat-belt (79%)
- seat-belts	Seat Dett (75%)
- vulnerable road users (pedestrians- cyclists)	

Sources: [1] SUPREME, 2005; [2] ETSC, 2011; [3] national sources

Vehicles and technology (national developments)

Table 12: Developments of vehicles and technology in Romania, compared to the situation in other EU countries

Mandatory technical inspections:	Most common in EU (% of countries)
Passenger cars: no information	Every 12 months (39%)
Motorcycles: no information	Every 24 months (32%)
Buses or coaches: no information	Every 12 months (61%)
Lorries or trucks: no information	Every 12 months (68%)

Sources: EC website, national sources

No information is available on the mandatory vehicle inspection periods in Romania.



Road Safety Performance Indicators

Speed

Table 13: Number of speed tickets per population in Romania versus the EU average

Measure	2007	2014	Average annual change	EU average (2014)
Number of speed tickets/1.000 population	49	38	-3,6%	94

Sources: [1] ETSC, 2010; [2] ETSC, 2016

per population in Romania is lower than the EU average and has decreased over time.

The number of speed tickets

Table 14: Percentage of speed offenders per road type in Romania compared to the EU average

Road type	2004	2012	Average annual change	EU average
Motorways	n/a	n/a	-	n/a
Rural roads	n/a	n/a	-	n/a
Urban roads	n/a	n/a	-	n/a

Sources: [1] ETSC, 2010; [2] ETSC, 2015

Table 15: Mean speed per road type in Romania compared to the EU average

Road type	2004	2012	Average annual change	EU average
Motorways	n/a	n/a	-	n/a
Rural roads	n/a	n/a	-	n/a
Urban roads	n/a	n/a	-	n/a

Sources: [1] ETSC, 2010; [2] ETSC, 2015

Alcohol

Table 16: Road side surveys for drink-driving in Romania compared to the EU average

Measure	2013	2015	Average annual change	EU average (2015)
Amount of tests/1.000 population	75	72	-2,0%	209
% tested over the limit	1,0%	1,8%	34,2%	2,2%

Sources: [1] ETSC, 2010; [2] ETSC, 2016

The amount of alcohol tests per population is lower in Romania than in the EU on average.



Romanian vehicle fleet has a much lower EuroNCAP occupant protection score than the EU on average.

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

Vehicles

Table 17: State of the vehicle fleet in Romania compared to the EU average

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Vehicles	EU average
Cars per age group (2015) [1]:	Passenger cars (2015)
- <2 years: 2,9%	<2 years: 10,5%
- 2 to 5 years: 5,0%	2 to 5 years: 12,5%
- 5 to 10 years: 25,7%	6 to 10 years: 26,0%
- >10 years: 66,3%	>10 years: 51,0%
EuroNCAP occupant protection score of cars	
(new cars sold in 2013) [2]:	
- 5 stars: 38,3%	5 stars: 52,5%
- 4 stars: 4,7%	4 stars: 4,5%
- 3 stars: 7,3%	3 stars: 2,9%
- 2 stars: 0,6%	2 stars 0,5%
- not tested: 49,1%	not tested: 39,6% ³
Source: [1] EUROSTAT, 2017; [2] ETSC, 2016	

Protective systems

Table 18: Protective system use in Romania versus the average in EU

Protective systems	EU average ⁴
Daytime seat-belt wearing in cars and vans	(2016)
(2010):	(2010)
- 49% front	not available
- 47% driver	91,6% driver
- no information on % front passenger	92,4% front passenger
- no information on % rear	70,9% rear
- no information on % child restraints	not available
Helmet use (2010):	
- 89% motor drivers	
- 76% motor passengers	not available
- no information on % cyclists	

Source: WHO, 2013

³ Based on data of 25 EU countries (excl. HR, LU and MT).

 $^{^4}$ Based on data of 17 EU countries; data of AT, DE, IE, IT, LT, FI, SE (2016); data of BE, CZ, HU, LU, PL, SI (2015); data of DK, HR, UK (2014); data of PT (2013)

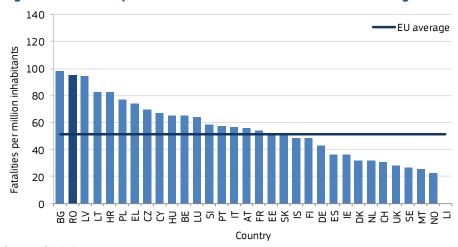


Road Safety Outcomes

General positioning

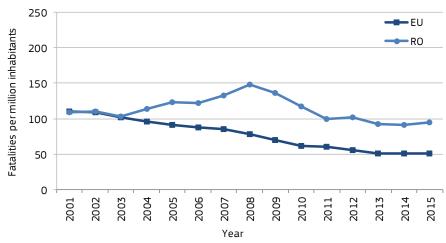
The fatality rate of Romania is substantially higher than the EU average (around 95 fatalities per million population in 2015). Marked increases have been recorded in the 2004-2008.

Figure 1: Fatalities per million inhabitants in 2015 with EU average



Sources: CARE, Eurostat

Figure 2: Development of fatalities per million inhabitants between 2001 and 2015 for Romania and the EU average



Sources: CARE, Eurostat

The fatality rate of Romania is substantially higher than the EU average. Marked increases have been recorded in the 2004-2008.



The share of pedestrian fatalities is much higher the EU average.

Transport mode

The share of pedestrian fatalities is substantially higher than the EU average. While the average annual rate of motorcyclist fatalities between 2001 and 2016 increased (+12%), the reduction of car occupant fatalities was only 1%. In the same period the annual reduction rate of pedestrian fatalities was 3%.

Table 19: Reported fatalities by mode of road transport in Romania compared to the EU average

compared to the Et	ompared to the Lo average						
Transport mode	2001	2016	Average annual change	Share in 2016	EU average (2016)		
Pedestrians	1.088	717	-3%	37%	21%		
Car occupants	933	785	-1%	41%	45%		
Motorcyclists	9	46	12%	2%	15%		
Mopeds	4	33	16%	2%	3%		
Cyclists	145	176	1%	9%	9%		
Bus/coach occupants	15	23	3%	1%	0%		
Lorries or truck	145	74	-5%	4%	5%		

Sources: CARE, national sources

occupants

Age, gender and nationality

Table 20: Reported fatalities by age, gender and nationality in Romania versus the EU average

versus the Lo aver	uge					
Age and gender	2001	2016	Average annual change	Share in 2016	EU average (2016)	
Females						
0-14 years	67	26	-7%	1%	1%	
15 - 17 years	21	17	-1%	1%	1%	
18 - 24 years	75	41	-4%	2%	3%	
25 - 49 years	172	125	-2%	7%	6%	
50 - 64 years	87	99	1%	5%	4%	
65+ years	157	196	2%	10%	10%	
Males						
0-14 years	120	48	-6%	3%	1%	
15 - 17 years	35	34	0%	2%	2%	
18 – 24 years	236	154	-3%	8%	11%	
25 – 49 years	835	512	-3%	27%	29%	
50 - 64 years	385	339	-1%	18%	15%	
65+ years	260	313	1%	16%	17%	
Nationality of killed person						
National	2.408	1.880	-2%	99%	n/a	
Non-national	42	33	-2%	2%	n/a	

Sources: CARE, national sources

Romania has a similar share of road fatalities by age and gender to the EU average.



Location

Fatalities in built-up areas are over-represented in Romania compared to the EU average.

Table 21: Reported fatalities by location in Romania compared to the EU average

average					
Location	2001	2016	Average annual change	Share in 2016	EU average (2016)
Built-up areas	1.841	1.189	-3%	62%	37%
Rural areas	603	698	1%	36%	54%
Motorways	6	26	11%	1%	8%
Junctions	71	207	8%	11%	20%

Sources: CARE, national sources

Fatalities in built-up areas are over-represented in Romania.

Lighting and weather conditions

Table 22: Reported fatalities by lighting and weather conditions in Romania

compared to the EU average

companed to the Louis					
Conditions	2001	2016	Average annual change	Share in 2016	EU average (2016)
Lightning conditions					
During daylight	1.130	1.029	-1%	54%	52%
During night-time	1.149	751	-3%	39%	31%
Weather conditions					
While raining	88	173	5%	9%	9%

Sources CARE, national sources

Single vehicle accidents

Table 23: Reported fatalities by type in Romania compared to the EU average

Accident Type	2001	2016	Average annual change	Share in 2016	EU average (2016)
Single vehicle	968	461	-6%	24%	29%

Sources: CARE, national sources

Under-reporting of casualties

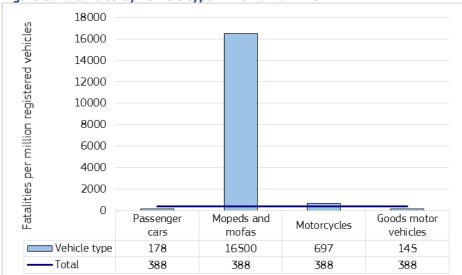
- Fatalities: 100%, due to improvements of the data recording systems.
- Hospitalised: no studies with quantitative information exist.

The share of fatal single vehicle accidents in Romania is a bit lower than the EU average.



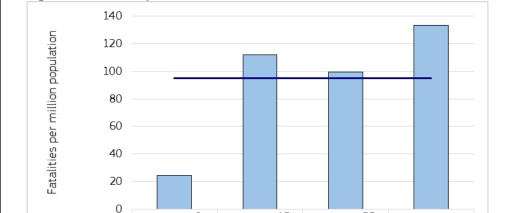
Risk Figures

Figure 3: Fatalities by vehicle type in Romania in 2012



Sources CARE, UNECE

In Romania risk is highest for drivers of mopeds and mofas as well as for the elderly and youngsters.



age group 15-

112

95

age group 25-

99

95

age group 65+

133

95

Figure 4: Fatalities per million inhabitants in Romania in 2015

age group 0-

25

95

Sources: CARE, EUROSTAT

Age group

-Total



Social Cost

- The total cost of road accident casualties (fatalities and injuries) is estimated at 48,5 billion euros (2014).
- The following costs are an update of the values in Table 5.3 of the HEATCO Deliverable D5 (2006) to base year 2010. Each figure includes the value of safety per se (VSL⁵ for fatality, 13% of VSL for severe, 1% for light injury) and the value of direct and indirect economic costs (10% of VSL for fatality, severe and slight injury based on HEATCO (2005)). EU average based on the VSL of €1,7 million.
- The costs per casualty for 2010 are as follows:

Table 24: Cost (€) per injury type in Romania versus the EU average

able 24. Cost (e) per injury type in komania versus the 20 average						
Country	Fatality	Severe injury	Slight injury			
Austria	2.395.000	327.000	25.800			
Belgium	2.178.000	330.400	21.300			
Bulgaria	984.000	127.900	9.800			
Croatia	1.333.000	173.300	13.300			
Cyprus	1.234.000	163.100	11.900			
Czech Republic	1.446.000	194.300	14.100			
Denmark	2.364.000	292.600	22.900			
Estonia	1.163.000	155.800	11.200			
Finland	2.213.000	294.300	22.000			
France	2.070.000	289.200	21.600			
Germany	2.220.000	307.100	24.800			
Greece	1.518.000	198.400	15.100			
Hungary	1.225.000	164.400	11.900			
Ireland	2.412.000	305.600	23.300			
Italy	1.916.000	246.200	18.800			
Latvia	1.034.000	140.000	10.000			
Lithuania	1.061.000	144.900	10.500			
Luxembourg	3.323.000	517.700	31.200			
Malta	2.122.000	269.500	20.100			
Netherlands	2.388.000	316.400	25.500			
Poland	1.168.000	156.700	11.300			
Portugal	1.505.000	201.100	13.800			
Romania	1.048.000	136.200	10.400			
Slovakia	1.593.000	219.700	15.700			
Slovenia	1.989.000	258.300	18.900			
Spain	1.913.000	237.800	17.900			
Sweden	2.240.000	328.700	23.500			
Great Britain	2.170.000	280.300	22.200			
EU average	1.870.000	243.100	18.700			

Source: Update of the Handbook on External Costs of Transport. Final Report. Report for the European Commission: DG MOVE. Ricardo-AEA/R/ ED57769 Issue Number 1; 8th January 2014

Estimated costs of road accident casualties are lower in Romania than on average in the EU.

⁵ Value of Statistical Life



Synthesis

Safety position

- The fatality rate of Romania is substantially higher than the EU average (around 95 fatalities per million population in 2015).

Scope of problem

- The highest shares of road fatalities in Romania are among the car occupants and the pedestrians. Pedestrians are significantly over-represented compared to the EU average.
- The risk of being killed in a road accident for moped and motorcycle users is extremely high.
- Much more fatalities in Romania occur inside built-up areas.
- Seat-belt wearing rates are low in Romania.

Recent progress

- No substantial improvement has been achieved in road safety between 2001 and 2015 in Romania. Moreover, marked increases in fatality rates have been recorded in the period 2004-2008.

Remarkable road safety policy issues

- The national road safety plan of Romania has not yet been approved.
- Romania has already implemented road safety audits and inspections.
- Romania has a zero tolerance for drink-driving.
- Child restraint and speed law enforcement are below average in Romania.

PTW and pedestrian safety are major issues in Romania.



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Notes

1. Country abbreviations

	Belgium	BE		Italy	IT		Romania	RO
	Bulgaria	BG	100	Cyprus	CY	-3	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	ΙE	*	Malta	МТ			
IП	Greece	EL		Netherlands	NL	╬	Iceland	IS
*	Spain	ES		Austria	AT	6 22	Liechtenstein	LI
	France	FR		Poland	PL	╂	Norway	NO
***	Croatia	HR	(8)	Portugal	PT	+	Switzerland	СН

2. Sources: CARE (Community database on road accidents), EUROSTAT, ITF-IRTAD, National sources.

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 September 2017.
- 4. Average annual change is calculated with the power function between the first and last years:

[aac = $(b/a)^{1/n}$ -1, where aac: annual average change, a: first year value, b: last year value, n: number of years].

5. Explanation of symbols in Tables:

n/a: not available

- "-": not applicable (e.g. calculation cannot be performed)
- 6. This 2017 edition of Road Safety Country Overviews updates the previous version produced in 2012 within the EU co-funded research project <u>DaCoTA</u>.

7. Disclaimer

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8. Please refer to this Report as follows:

European Commission, Road Safety Country Overview - Romania, European Commission, Directorate General for Transport, September 2017.



