Slovakia





Structure and Culture

Basic data

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

Basic data of Slovakia	European average
Population: 5.4 million inhabitants (2010)	17.1 million (2010) [1,2]
 Area: 49 000 km² (2010) 	156 225 km ² (2010) [1,3]
(1.9% water) (2010)	3% water (2010) [4]
 Climate and weather conditions (capital city; 2010): 	(2010)
Average winter temperature (Nov. to April): 6°C	6°C
Average summer temperature (May to Oct.): 15°C	16°C
Annual precipitation level: 776 mm	747 mm
 Exposure: 13.4 billion vehicle km (2000) 	168 billion vehicle km
(% cars, % vans etc. not available)	(2010") [1]
 0.34 motorised vehicles per person (2002) 	0.7(2010 ^{1, 11}) [1,2]

Slovakia has a low number of vehicles per person and a relative low number of people living inside an urban area.

Country characteristics

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

Characteristics of Slovakia	European average
 Population density: 111 inhabitants/km² (year) 	110 inhabitants km ² (2010 ¹) [1,2,3]
 Population composition (2009): 15% children (0-14 years), 72% adults (15-64 years), 12% elderly (65 years and over) 	16% children, 67% adults, 17% elderly (2009 ⁱⁱⁱ) [1,2]
 Gross Domestic Product (GDP) per capita: €12 100 (2010) 	€26 100 (2010) [1,2]
 22% of population lives inside urban area (year) 	42% (2010 ^{iv}) [1,2]
 Special characteristics: The largest part of Slovakia is mountainous land, and about 40% is covered with forests. 	



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

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



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).

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

Structure of road safety management

Policy making is centralized in Slovakia.

Table 3: Key actors per function in Slovakia (Source: national sources).

Key functions	Key actors
1.	Ministry of Transport, Construction and Regional
 Formulation of national RS strategy 	Development - Department for Road Safety
 Setting targets 	
 Development of the RS programme 	
2. Monitoring of the RS development in	Ministry of Transport, Construction and Regional
the country	Development in cooperation with Výskumný ústav
	dopravný (a research institute that monitors safety
	performance indicators)
3. Improvements in road infrastructure	Ministry of Transport, Construction and Regional
	Development;
	 Slovak Road Administration.
4.74.11.1	National Highway Company.
4. Vehicle improvement	Ministry of Transport, Construction and Regional
E leavencement in road coor advection	Development - Ministry of Transport, Construction and Regional
5. Improvement in road user education	 Ministry of Transport, Construction and Regional Development;
	Ministry of Education;
	Ministry of Education, Ministry of Interior.
6. Publicity campaigns	Ministry of Transport, Construction and Regional
o. I ability campaigns	Development;
	Ministry of Education;
	 Ministry of Interior.
7. Enforcement of road traffic laws	Ministry of Interior through the Police
8. Other relevant actors	Knowledge institutions: Slovak Technical
	University in Bratislava, Technical University in
	Žilina, The Slovak Association of Civil
	Engineers;
	 Association of cities and municipalities of
	Slovakia (chiefs of regional offices and chiefs
	of self-governing regions);
	The Association of Insurance companies;
	The Association of insurance companies, The Institute of Forensic Engineering in Žilina;
	The Association of the Automobile Industry of the Slovek Benublie:
	the Slovak Republic;
	 The Integrated rescue system of Slovakia.

Road safety policy is centralised in Slovakia, with an important role for the Ministry of Transport, Construction and Regional Development.



Attitudes towards risk taking

 Slovakian drivers admit more than drivers from other countries that they sometimes overtake others in a dangerous way.

The following key-actors are responsible for road safety (RS) management:

Table 4: Road safety attitudes and behaviour of drivers (Source: SARTRE, 2004).

Table 4. Noad Safety attitudes and behaviour of diff	Slovakia	SARTRE average
Self-reported driving behaviour		that show behaviour
3	often or more	
Too close following	7%	9%
Inappropriate overtaking	18%	5%
Exceeding speed limit on motorways	16%	25%
Exceeding speed limit on main inter-urban roads	18%	18%
Exceeding speed limit on country roads	11%	13%
Exceeding speed limit in built-up areas	8%	8%
	•	
Support of stricter legislation	% of drivers t	hat support stricter
	legislation	
Higher penalties for speeding g offences	68%	60%
Higher penalties for speeding g offences Higher penalties for drink-driving offences	68% 93%	60% 88%
Higher penalties for drink-driving offences	93%	88%
Higher penalties for drink-driving offences	93% 13%	88%
Higher penalties for drink-driving offences Lower BAC limits	93% 13%	88% 8% who assume they
Higher penalties for drink-driving offences Lower BAC limits	93% 13% % of drivers	88% 8% who assume they

(comparison of country attitude in relation to average attitude of other SARTRE countries):

2-9% better 10-19% better

≥ 20% better

2-9% worse

10-19% worse

≥ 20% worse



Slovakian drivers admit more than drivers in other countries that they sometimes overtake inappropriately.



Slovakia has adopted vision zero as basis for their RS strategy.





Programs and measures

Road Safety Strategy of the country

 The key strategy of the National programme for road safety improvement in the Slovak republic is the adoption and acceptance of the Vision Zero philosophy in relation to road safety.

National strategic plans and targets

- The new road safety plan covers the period 2011 to 2020.
- Targets (referred to 2010):

Table 5: Road safety targets for Slovakia

Year	Fatalities
2020	-50%
	345

- Priority thematic topics of proposed packages of measures are:
 - speed;
 - o alcohol and drugs;
 - o vulnerable road users:
 - o traffic education and drivers training;
 - road infrastructure;
 - vehicles and intelligent traffic systems;
 - freight and bus transport;
 - o post-accident care;
 - o road safety management.

(Source: national sources)

Road infrastructure

Table 6: Description of the road categories and their characteristics in Slovakia (Source: national sources).

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

- Special rules for:
 - o Buses: max. 100 km/h on motorways
 - Vehicles > 3,5 ton: max. 90 km/h
 - o Bus with trailer > 750 kg, or vehicle ≤ 3500 with trailer > 750 kg: 90 km/h
- Guidelines and strategic plans for infrastructure are available in Slovakia.

Table 7: Obligatory parts of infrastructure management in Slovakia and other European countries (Sourcee: DG-TREN, 2010).

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

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



- Recent infrastructural actions have been addressing:
 - black spot identification and improvement,
 - o traffic calming,
 - o improving signing and marking,
 - o grade separate crossings.

Traffic laws and regulations

Table 8: Description of the regulations in Slovakia in relation to the most common regulations in other European countries. (Sources: [1] DG-TREN, 2005; [2] national sources; [3] DG-TREN 2010: [4] DG-TREN 2008)

[3] DG-TREN, 2010; [4] DG-TREN, 2008).	
Regulations in Slovakia	Most common in Europe (% of countries)
Allowed BAC level: 0.0%;	0.5% (60%)
Novice drivers:0.0‰;	0.5‰ and 0.2‰ (both 30%)
 Professional drivers: 0.0% [1]. 	0.5‰ (30%) [1,2]
Phoning:	
 Hand held: not allowed 	Not allowed (97%) [2,3]
 Hands free: allowed [2] 	-
Use of restraint systems:	
Front: obligatory	Obligatory (all countries)
Rear: obligatory	Obligatory (all countries)
 Children: obligatory [2]. 	Obligatory on all seats (73%) [2,3]
Helmet wearing:	
 Motor riders: Obligatory 	Obligatory (all countries)
 Moped riders: Obligatory 	Obligatory (all countries)
 Cyclists: obligatory outside built-up area 	Recommended (25% ^{VI}) [2,3]
and for children under 15 years [2].	
 Mandatory DRL [4]. 	

tolerance law for drink-driving, which is stricter than most other countries.

Slovakia has a zero

Especially child restraint law enforcement is assessed as effective in Slovakia, but most other topics need to do more.

Enforcement

Table 9: Effectiveness of enforcement effort in Slovakia according to an international respondent consensus (scale = 0-10) (Source: DG-TREN, 2010)

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



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

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



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

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

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

Road user education and training

Table 10: Road user education and training in Slovakia, compared to the situation in other European countries. (Sources: I11 ROSE25, 2005; I21 ETSC, 2011; I31 national sources)

Education and training in Slovakia	Most common in Europe (% of countries)
General education programmes:	
 Primary school: Compulsory 	Compulsory (65% ^{xi})
 Secondary school: Voluntary 	Compulsory (50% ^{XII}) [1,2]
 Other groups: none 	-
Driving licences thresholds:	
 Passenger car (B): 18 years; 17 years when handicapped or under company of experienced driver; 	18 years (79%)
 Motorised two wheeler: 16 years (A1), 18 years (A with restrictions), 21 year (A without restrictions); 	18 years (low categories) and higher ages for faster vehicles (66%)
 Busses and coaches: 21 years Lorries and trucks: 18 years 	21 years (76%) ^{xiii} 21 years (79% ^{xiv}) [2,3]

education is only compulsory in Slovakia at primary schools.

Road safety

Public campaigns

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

Campaigns in Slovakia	Most common issues in Europe (% of countries)
Organisation: – Ministry of Transport, Construction and Regional	
Development	
 Ministry of Education; 	
 Ministry of Interior. 	
Main themes:	
 Drink-driving (alcohol and drugs) 	Drink-driving (83%)
Seat-belts	Seat-belt (73%)
 Speed limits 	Speeding (53%)
 Restraint systems 	-
 Visibility of old pedestrians and cyclists 	-
 First aid. 	-



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

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



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

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).

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

Vehicles and technology (national developments)

Table 12: Developments of vehicles and technology in Slovakia, 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: 4-2-2 etc.	Every 12 months (41%)
Motor cycles: 4-2-2 etc.	Every 12 months (35%)
Busses or coaches: Every year until 8 years, thereafter every 6 months	Every 12 months (41%)
Lorries or trucks: Every year	Every 12 months (41%) ^{xv}

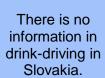


^{xv} Based on data of 17 countries (excl.BG, CH, CY, CZ, EE, HU,LT, MT, NO, RO, SI, SK).





The amount of speed tests per population in Slovakia is below the European average; there is no information on speed.





Road Safety Performance Indicators

Speed

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

Measure	2006	2008	% change	European average (2008)
Number of tests/1000 population	25	24	-4%	90.8 ^{xvi}

Table 14: Percentage of speed offenders per road type in Slovakia compared to the European average (Source: ETSC, 2010)

Road type	2001	2011	Average annual change	European average
Motorways	Not available	Not available	Not available	Not available
Rural roads	Not available	17%	Not available	Not available
Urban roads	Not available	52%	Not available	Not available

Table 15: Mean speed per road type in Slovakia compared to the European average (Source: ETSC, 2010)

(Codi Co. 2.100, 2010)							
Road type	2001	2011	Average annual change	European average			
Motorways	Not available	Not available	Not available	Not available			
Rural roads	Not available	80 km/h	Not available	Not available			
Urban roads	Not available	52 km/h	Not available	Not available			

Alcohol

Table 16: Road side surveys for drink-driving in Slovakia 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

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



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

Most new cars sold in 2008 in Slovakia have 4 stars, while they have 5 stars in Europe in average.

Seat-belt wearing rates are somewhat lower than the European average, but helmet wearing rates are quite high.

Vehicles

Table 17: State of the vehicle fleet in Slovakia compared to the European average (Source: ETSC, 2009; national source)

Vehicle fleet in Slovakia	European average
Cars per age group (2009):	Passenger cars (2009) ^{xviii}
 10% ≤ 2 years, 	12% ≤ 2 years,
- 16% 2 to 5 years,	19% 2 to 5 years,
 26% 6 to 10 years, 	27 % 6 to 10 years,
48% > 10 year.	42% >10 years
EuroNCAP occupant protection score of cars (new cars	
sold in 2008):	
- 5 stars: 32%	49%
- 4 stars: 51%	35%
- 3 stars: 5%	6%
- 2 stars: 2%	1% ^{xix}

Protective systems

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

Use of protective systems in Slovakia	European average
Daytime seat belt wearing in cars and vans (2010):	(2007)
- 84% front,	85% front ^{xx} ,
- 83% driver	Not available
 86% front passenger 	Not available
- 43% rear,	60% rear ^{xxi} ,
 89% child restraint systems 	Not available
Helmet use:	
94% motor rides,	Not available
 94% moped riders, 	Not available
- 25% cyclists	Not available



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

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).

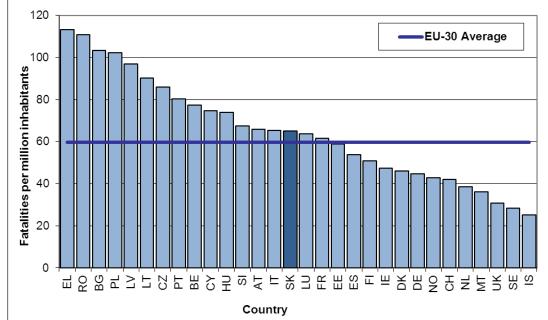


xix Based on data of 27 countries (excl. CY, IS and MT).

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)



General positioning



Road Safety Outcomes

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

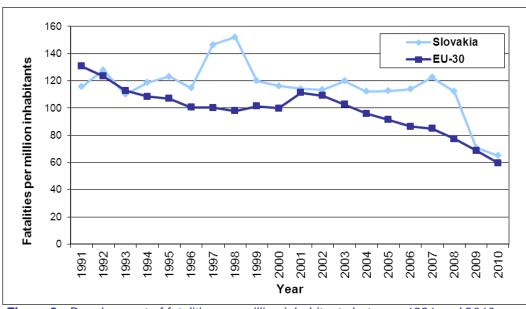


Figure 2: Development of fatalities per million inhabitants between 1991 and 2010. (Source: CARE, Eurostat).

The number of fatalities per inhabitants is about average in Slovakia; the decline is going up and down but declines fast last years.



Pedestrians have a relative large share in fatalities in Slovakia but together with fatalities among cyclists, also showed the largest decrease last years.



Relative many fatalities occur on rural roads, relative few on motorways in Slovakia.



Transport mode

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

Transport mode	2005	2009	Average annual change	% in 2009	European average (2009 ^{xxii})
Pedestrians	174	93	-12%	24%	18%
Car occupants	293	182	-9%	47%	47%
Motorcyclists	45	34	-6%	9%	13%
Mopeds	-	-	-	1	2%
Cyclists	56	22	-15%	6%	5%
Bus/coach occupants	8	12	13%	3%	<1%
Lorries or truck occupants	26	16	-10%	4%	4%

Age, gender and nationality

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

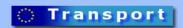
Age and gender	2005	2009	Average annual change	% in 2009	European average (2009 ^{VIII})	
Females	144	88	-10%	23%	24%	
0-14 years	10	3	-18%	1%	1%	
15 – 17 years	7	2	-18%	1%	1%	
18 – 24 years	13	2	-21%	1%	4%	
25 – 49 years	58	22	-16%	7%	7%	
50 – 64 years	26	23	-3%	7%	3%	
65+ years	29	24	-4%	8%	7%	
Males	462	296	-9%	77%	75%	
0-14 years	9	6	-8%	2%	2%	
15 – 17 years	11	3	-18%	1%	2%	
18 – 24 years	70	51	-7%	16%	13%	
25 – 49 years	203	100	-13%	31%	31%	
50 – 64 years	118	57	-13%	18%	12%	
65+ years	48	27	-11%	8%	12%	
Nationality of driver or rider killed						
National	591	366	-10%	95%	Not available	
Non-national	15	18	5%	5%	Not available	

Location

Table 21: Reported fatalities by location in Slovakia compared to the European average of the last year available (Source: CARE, national sources). Motorways and junctions are part of built-up and rural areas.

Location	2005	2009	Average annual change	% in 2009	European average (2009 ^{VIII})
Built-up areas	277	176	-9%	46%	33%
Rural areas	329	208	-9%	54%	49%
Motorways	21	9	-14%	2%	5%
Junctions	72	35	-13%	9%	12%

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



Somewhat more than average amount of fatalities occur during night time, during rain; and relative few as single vehicle crash.

Lighting and weather conditions

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

Conditions	2005	2009	Average annual change	% in 2009	European average (2009 ^{xxiii})
Lightning conditions					
During daylight	313	203	-9%	53%	55%
During nighttime	253	157	-9%	41%	39%
Weather condition					
While raining	52	46	-3%	12%	10%

Single vehicle crashes

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

Crash type	2005	2009	Average annual change	% in 2009	European average (2009 ^{xxiv})
Single vehicle crash	342	117	-16%	30%	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)



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).



Risk figures

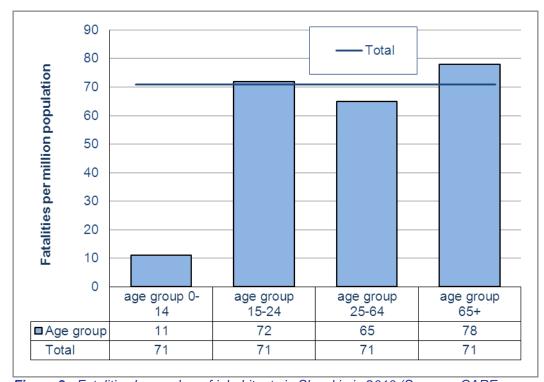
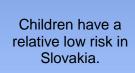


Figure 3: Fatalities by number of inhabitants in Slovakia in 2010 (Sources: CARE, OECD/ITF, 2011).







Estimated costs of road injuries are lower in Slovakia than on average in Europe.

Social Cost

- Total costs of road crashes (fatalities and injuries): 0.7 billion euros (2007)
- Percentage of GDP: 1.28%

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

Injury type	Value	European average ^{xxv}
Fatal	0.32	1.28
Hospitalised	0.10	0.18
Slightly injured	0.01	0.02



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





Slovakia has an average road safety position in Europe and is in the process of adopting a vision zero strategy.

Synthesis

Safety position

The number of fatalities per inhabitants in Slovakia is slightly above the European average.

Scope of problem

- Pedestrians have a relative large share in fatalities in Slovakia. Young and older men are overrepresented in fatalities in Slovakia.
- Relative many fatalities in Slovakia occur on rural roads, relative few on motorways.
- Somewhat more than average amount of fatalities occur during night time and during rain.
- Youngsters and elderly have the highest risks in Slovakia.
- The amount of speed tests per population in Slovakia is below the European average; there is no information on speed and drink-driving.
- Seat-belt wearing rates are somewhat lower than the European average.

Recent progress

- The decline in fatalities per population is going up and down, but declines fast last years.
- Fatalities among cyclists and pedestrians showed the largest decrease last years.

Remarkable road safety policy issues

- Slovakia is in the process of adopting a vision zero as basis for their RS strategy.
- Slovakia has a zero tolerance law for drink-driving, which is stricter than most other countries.
- Especially child restraint law enforcement is assessed as effective in Slovakia.







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