Road Safety Country Overview October 2012

Greece





Greece has warm climate, a mountainous mainland and large complexes of islands.

Structure and Culture

Basic data

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

Basic data of Greece	European average
 Population: 11.3 million inhabitants (2010) 	17.1 million (2010 ¹) [1,2]
– Area: 131 990km ² (2010)	156 225 km ² (2010) [1,3]
(1.0% water) (2010)	3% water (2010) [4]
 Climate and weather conditions (capital city; 2010): 	(2010)
Average winter temperature (Nov. to April): 16°C	6°C
Average summer temperature (May to Oct.): 24°C	16°C
Annual precipitation level: 390 mm	747 mm
 Exposure: 81.6 billion vehicle km (1998) 	168 billion vehicle km
	(2010") [1]
 0.72 motorised vehicles per person (2009) 	0.7(2010 ^{i, iii}) [1,2]

Country characteristics

Table 2: Characteristics of Greece in comparison to the European average. (Sources:

 [1] OECD/ITF, 2011; [2] Eurostat; [3] national sources)

Characteristics of Greece	European average
 Population density: 86 inhabitants/km² (2010) 	110 inhabitants km ² (2010 [']) [1,2,3]
 Population composition (2010): 16% children (0-14 years), 63% adults (15-64 years), 21% elderly (65 years and over) 	16% children, 67% adults, 17% elderly (2009 ⁱⁱⁱ) [1,2]
 Gross Domestic Product (GDP) per capita: €20 400 (2010) 	€26 100 (2010) [1,2]
 40% of population lives inside urban area (2010) 	42% (2010 ^{IV}) [1,2]
 Special characteristics: Greece has a mountainous mainland and a large complex of islands 	



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).
 - Based on 27 European countries (excl. LT, NO, PL); data of BE, UK (2008).
 - ^{iv} Based on 29 European countries (excl. IS).

Structure of road safety management

 The coordination of all the Ministries involved in road safety management, is ensured by the Inter-Ministerial Committee on road safety chaired by the Minister of Citizen Protection. However, its role remains limited as the corresponding coordination secretariat has never been established.

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

|--|

Key functions	Key actors
 Formulation of national RS strategy Setting targets Development of the RS programme Monitoring of the RS development 	 Ministry of Infrastructure, Transport and Networks. Ministry of Citizen Protection. Ministry of Interior. Inter-Ministerial Committee on road safety: coordination.
in the country	 Ministry of minastructure, mansport and Networks. Ministry of Citizen Protection. Ministry of Interior. Inter-Ministerial Committee on road safety: coordination.
3. Improvements in road infrastructure	 Ministry of Infrastructure, Transport and Networks: national, interurban and rural roads and Athens metropolitan area main road network. Municipalities: urban roads
4. Vehicle improvement	Ministry of Infrastructure, Transport and Networks: vehicle licensing and technical inspection
5. Improvement in road user education	 Ministry of Infrastructure, Transport and Networks: driver training and licensing, development and monitoring of the Road Code Ministry of Education, Life-Long Learning and Religion: traffic and road safety education in high-school.
6. Publicity campaigns	 Ministry of Infrastructure, Transport and Networks: national campaigns. Ministry of Public Order. Ministry of Transport Automobile Association. Regional and local authorities: regional and local campaigns.
7. Enforcement of road traffic laws	 The Traffic Police (under Ministry of Citizen Protection): implementation of the Road Code, road safety enforcement. Regional police forces.
8. Other relevant actors	 The Ministry of Health; the Ministry of Education, Life-Long Learning and Religion; The Ministry of the Economy; NGO's: e.g. the Technical Chamber of Greece, the Hellenic Institute of Transportation Engineers, the Automobile and Touring Club of Greece; Universities and research institutes.

All actors involved are co-ordinated by the Inter-Ministerial Committee on road safety.



Attitudes towards risk taking

- Greek drivers admit to unsafe behaviours much more often than drivers from other countries. This is especially the case for too close following, and also inappropriate overtaking and speeding on motorways.
- There is somewhat more support among Greek drivers for stricter legislation than among drivers in other countries.
- The perceived probability of being checked is somewhat higher in Greece than in other countries.

Table 4: Road safe	y attitudes and behaviour of drivers ((Source: SARTRE, 2004)
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	Greece	SARTRE average
Self-reported driving behaviour	% of drivers that show behaviour often or more	
Too close following	35%	9%
Inappropriate overtaking	15%	5%
Exceeding speed limit on motorways	40%	25%
Exceeding speed limit on main inter-urban roads	23%	18%
Exceeding speed limit on country roads	19%	13%
Exceeding speed limit in built-up areas	6%	8%
Support of stricter legislation	% of drivers that support stricter	
	legislation	
Higher penalties for speeding offences	68%	60%
Higher penalties for drink-driving offences	90%	88%
Lower BAC levels	13%	8%
Perceived probability of being checked	% of drivers that believe that	
	probability is high	
Speeding	20%	18%
Alcohol use	16%	9%

Greek drivers admit to unsafe driver behaviour more than drivers in other countries.

Legend

(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

 \geq 20% worse





The Greek road safety plan is mainly directed at creating a better safety culture among Greek drivers.

Road audits are obligatory in Greece.



Programs and measures

Road safety strategy of the country

 The Greek strategic plan has adopted the vision of sustainable road safety and its 5 safety principles: functionality of roads, homogeneity of mass and/or speed and direction, forgivingness of the environment and of road users, predictability of road course and road user behaviour by a recognizable road design, and state awareness by the road user.

National strategic plans and targets

- The latest Greek road safety plan (2011-2020) is currently under development.
- Targets (referred to 2011):

Table 5: Road safety targets for Greece

Year	Fatalities
2020	-50%
	Max. 640

 Priority topics: mainly development of a road safety culture among Greek road users.

(Sources: national sources)

Road infrastructure

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

Road type	Speed limit (km/h)
Urban roads	50
Rural roads	90/110
Motorways	130

- Special rules for:

- Light motorcycles (A1): 80 km/h
- o Trucks and busses: generally lower speed limit
- Guidelines and strategic plans for infrastructure are available in Greece and are mainly directed at geometric characteristics and the construction process of the inter-urban road network.

Table 7: Obligatory parts of infrastructure management in Greece and other European countries. (Sources: national sources)

Obligatory parts in Greece:	European countries with obligation
Safety impact assessment: no	-
Road audits: yes	50%
Road inspections: no	60%
Black spot treatment: no	47% ^v

Recent infrastructural actions have been addressing motorway development.

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



Traffic laws and regulations

Table 8: Description of the regulations in Greece 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 Greece	Most common in Europe (% of countries)
Allowed BAC level: 0.5%;	0.5‰ (60%)
 Novice drivers: 0.2 ‰; 	0.5‰ and 0.2‰ (both 30%)
 Professional drivers: 0.2 ‰. 	0.5‰ (30%) [1,2]
 Motorcycles, moped drivers: 0.2 ‰. [1] 	-
Phoning:	
 Hand held: prohibited 	Not allowed (97%) [2,3]
 Hands free: not prohibited [2] 	-
Use of restraint systems:	
 Driver: obligatory 	Obligatory (all countries)
 Front passenger: obligatory 	Obligatory (all countries)
 Rear passenger: obligatory 	Obligatory (all countries)
 Children: obligatory [2,3] 	Obligatory on all seats (73%) [2,3]
Helmet wearing:	
 Motor riders: obligatory 	Obligatory (all countries)
 Moped riders: obligatory 	Obligatory (all countries)
 Cyclists: not obligatory [2] 	Recommended (25% ^{VI}) [2,3]
 A demerit point system is in place [2] 	

• Enforcement

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

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

Table 10: Performance of enforcement effort in Greece according to an international respondent consensus (scale = is good, is improving, needs to do more) (Source: DG-TREN, 2010)

Issue	Score for Greece	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% [×])

^{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).

Greece has a 0.2 drink-driving limit for novice and professional drivers, and for drivers of motorcycles and mopeds.

Especially speed and helmet wearing enforcement are somewhat less effective in Greece than in other countries in Europe.



Road user education and training

Table 11: Road user education and training in Greece, compared to the situation in other European countries. (Sources: [1] ROSE25, 2005; [2] ETSC, 2011; [3] national sources)

Education and training in Greece	Most common in Europe (% of countries)
General education programmes:	
 Primary school: included as part of Civil 	Compulsory (65% ^{xi})
and Social Education courses.	
 Secondary school: voluntary 	Compulsory (50% ^{xii}) [1,2]
 Other groups: no information 	-
Driving licences thresholds:	
 Passenger car: 18 	18 years (79%)
 Motorised two wheeler: 16 years for 	18 years (low categories) and higher ages for
mopeds and motorcycles <125cc (A1),	faster vehicles (66%)
18 years for other motorcycles	i i i i i i i i i i i i i i i i i i i
 Busses and coaches:18 	21 years (76%) ²¹¹
 Lorries and trucks:18 	21 years (79%) [2,3]

Public campaigns

Table 12: Public campaigns in Greece, compared to the situation in other European countries. (Sources: SUPREME, 2007; national sources)

Campaigns in Greece	Most common issues in Europe (% of countries)
Organisation:	
 Ministry of Infrastructure, Transport an 	
 Networks: national campaigns; 	
 Ministry of Public Order; 	
 Ministry of Transport Automobile Association; 	
 Regional and local authorities. 	
Main themes:	
 Drink-driving 	Drink-driving (83%)
- Seat-belt	Seat-belt (73%)
- Speeding	Speeding (53%)
– Helmets	



^{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).



Mandatory vehicle inspection periods are twice as large as the period in most countries.

Vehicles and technology (national developments)

Table 13: Developments of vehicles and technology in Greece, compared to the
situation in other European countries. (Sources: TiS.PT, 2003; national sources)Mandatory technical inspectionsMost common in Europe (% of countries)Passenger cars: every 24 monthsEvery 12 months (41%)Motor cycles: not submitted to checksEvery 12 months (35%)Busses or coaches: every 24 monthsEvery 12 months (41%)Lorries or trucks: every 24 monthsEvery 12 months (41%)



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





Road Safety Performance Indicators

Speed

Table 14: Number of speed checks in Greece 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 15: Percentage of speed offenders per road type in Greece compared to the European average (Source: ETSC, 2010)

Road type	2001	2010	Average annual change	European average
Motorways	Not available	Not available	Not available	Not available
Rural roads	Not available	Not available	Not available	Not available
Urban roads	Not available	Not available	Not available	Not available

Table 16: Mean speed per road type in Greece compared to the European average (Source: ETSC, 2010)

Road type	2001	2010	Average annual change	European average
Motorways	Not available	Not available	Not available	Not available
Rural roads	Not available	Not available	Not available	Not available
Urban roads	Not available	Not available	Not available	Not available

Alcohol

Table 17: Road side surveys for drink-driving in Greece compared to the European average (Source: ETSC, 2010)

Measure	2006	2008	% change	European average (2008)
Number of tests/1000 population	118	135	14.4%	145.8 ^{xvii}
% tested over the limit	3.4%	3.1%	-8.8%	Not available



There is no information on speed in Greece.

Alcohol enforcement has increased during the last years.

aCota



Seat-belt wearing rates are lower in Greece than on average in Europe. Vehicles

Table 18: State of the vehicle fleet in Greece compared to the European average (Source: ETSC, 2009)

Vehicle fleet in Greece	European average		
Cars per age group (2009):	Passenger cars (2009) ^{xviii}		
$-$ 8% \leq 2 years,	12% ≤ 2 years,		
 19% 2 to 5 years, 	19% 2 to 5 years,		
 29 % 6 to 10 years, 	27 % 6 to 10 years,		
– 44% > 10 year.	42% >10 years		
EuroNCAP occupant protection score of cars (new cars			
sold in 2008):			
 5 stars: no information 	49%		
 4 stars: no information 	35%		
 3 stars: no information 	6%		
 2 stars: no information 	1%^**		

• Protective systems

Table 19: Protective system use in Greece versus the average in Europe (Source: Vis & Eksler, 200; national sources)

Use of protective systems in Greece	European average
Daytime seat belt wearing in cars and vans (2009):	(2007)
 75% front, 	85% front ^{xx} ,
– 77% driver	Not available
 74% front passenger 	Not available
– 23% rear,	60% rear ^{xxi} ,
 No information on % child restraint systems 	Not available
Helmet use:	
 No information on % motor rides, 	Not available
 No information on % moped riders, 	Not available
 75% powered two wheelers 	-
 No information on % cyclists 	Not available



^{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).

(2006); data of HU, NO, PT (2005); data of LU (2003).

^{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

General positioning



Greece has the highest annual amount of fatalities per million inhabitants but shows a gradual decrease over time.

120 -EU-30 Average 100 -EU-30 Average

Road Safety Outcomes





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



The share of motorcyclists' fatalities has increased and the share in fatalities is higher than in other countries.



Table 20: Reported fatalities by mode of road transport in Greece 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	338	202	-5.4%	14%	18%
Car occupants	786	680	-1.6%	47%	47%
Motorcyclists	426	405	0.1%	28%	13%
Mopeds	77	28	-10.7%	2%	2%
Cyclists	29	15	-1.7%	1%	5%
Bus/coach occupants	4	4	16.9%	0%	<1%
Lorries or truck occupants	116	81	-2.7%	6%	4%

Age, gender and nationality

Table 21: Reported fatalities by age, gender and nationality in Greece 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	22	21	8.5%	1%	1%
15 – 17 years	17	4	-2.1%	0%	1%
18 – 24 years	62	31	-3.3%	2%	4%
25 – 49 years	127	78	-3.7%	5%	7%
50 – 64 years	63	35	-5.1%	2%	3%
65+ years	116	73	-4.7%	5%	7%
Males					75%
0-14 years	25	22	-0.7%	2%	2%
15 – 17 years	34	33	2.4%	2%	2%
18 – 24 years	323	211	-4.5%	14%	13%
25 – 49 years	570	539	-0.5%	37%	31%
50 – 64 years	221	176	-2.5%	12%	12%
65+ years	269	202	-3.4%	14%	12%
Nationality of driver of					
National	136	131	-0.1%	9%	Not available
Non-national	77	56	-0.2%	4%	Not available

Location

Table 22: Reported fatalities by location in Greece 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	2001	2009	Average annual change	% in 2009	European average (2009 ^{VIII})
Built-up areas	830	645	-2.8%	44%	33%
Rural areas	1050	810	-3.7%	55%	49%
Motorways	86	108	7.9%	7%	5%
Junctions	148	127	-0.7%	9%	12%

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

Especially middle aged men have a high share in fatalities per population.

Fatalities in built-up areas are overrepresented in Greece.



Lighting and weather conditions

Table 23: Reported fatalities by lighting and weather conditions in Greece 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	1				
During daylight	983	789	-2.5%	54%	55%
During nighttime	793	608	-3.0%	42%	39%
Weather condition					
While raining	178	175	1.3%	12%	10%

• Single vehicle crashes

Table 24: Reported fatalities by type in Greece 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	976	551	-6.0%	38%	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: WHO)



^{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).



Risk figures



Figure 3: Fatalities by vehicle type for the country in 2009 (Sources: CARE).



Figure 4: Fatalities by number of inhabitants in the country in 2009 (Sources: CARE, OECD/ITF, 2011).

Mopeds and motorcycles present from 5 to 10 times higher risk than passenger cars.







Social Cost

- Total costs of road crashes (fatalities and injuries): 4 billion euros (2008).
- Percentage of GDP: 0.35%.

Table 25: Cost (in million Euro) per injury type in Greece versus the European average (Source: Bickel et al., 2006).

Injury type	Value	European average ^{xxv}
Fatal	1.88	1.28
Hospitalised	0.22	0.18
Slightly injured	0.04	0.02

Estimated road safety costs are higher in Greece than on average in Europe.



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





Traffic enforcement is assessed as less effective in Greece than in other European countries, but the number of checks has increased recently.

Synthesis

Safety position

- Greece is the worst performing country in Europe in terms of road safety.

Scope of problem

- Greece is characterised by increased traffic of motorcycles and pedestrians. As a consequence, 32% of the fatalities is a moped or motorcycle rider and 14% of the fatalities is a pedestrian. The share of motorcyclists is significantly increased compared to other countries' and their trend has remained practically unchanged.
- Fatalities in built-up areas are over-represented in Greece compared to the European average.
- Especially middle aged men have a high share in fatalities per population.
- Young drivers and two-wheeler riders are particular high-risk groups.
- Especially speed and helmet wearing enforcement are somewhat less effective in Greece than in other countries in Europe. Seat-belt wearing rates are lower than the European average.
- The passenger car fleet in Greece is somewhat older than the average European car fleet and mandatory vehicle inspection periods are twice as large as the period in most countries.

Recent progress

- The number of fatalities have decreased over time. The decrease has been 37% from century start.
- Traffic enforcement has increased during the last decades.

• Remarkable road safety policy issues

- The Greek road safety plan is mainly directed at creating a better safety culture among Greek drivers.
- Road audits are obligatory in Greece.
- Greece has a 0.2 drink-driving limit for novice and professional drivers, and for drivers of motorcycles and mopeds.







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 <u>http://ec.europa.eu/transport/road_safety/observatory/country_profiles_en.htm</u>)
- 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 (2011) <u>www.etsc.eu/faq.php</u> (FAQ on driving licensing has been removed now)
- 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
- SARTRE (2004). *European drivers and road risk. SARTRE 3 results*. INRETS, Arcueil Cedex.
- 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.
- WHO (2009) Global status report on road safety. Time for action. World Health Organisation, Geneve.

