



European Road Safety Observatory

National Road Safety Profile - Iceland



This document is part of a series of 30 country profiles: one for each member of the EU 27 and three EFTA countries (Iceland, Norway and Switzerland). The purpose of this series is to provide tables and figures that give an overview of the road safety situation in a specific country. The tables and figures are organized according to a pyramid of road safety information: (1) road safety outcomes, (2) road safety performance indicators, (3) road safety programmes and measures, and (4) structure and culture.

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1 Highlights

Road safety outcomes

- In 2020 a total of 8 people were killed in reported traffic accidents in Iceland.
- Iceland performs better than all EU countries in terms of the number of fatalities per million inhabitants. Over the past twenty years this rate has decreased more significantly than the EU average.
- There was an increase of fatalities and serious injuries on rural roads.

Road safety performance indicators

- Iceland is characterized by very low road density compared to the EU average.

Road safety policy and measures

- Enforcement is more widely perceived as effective in comparison to other EU countries.

2 Road Safety Outcomes

2.1 General risk in traffic

In Iceland, a total of 8 people were killed in reported traffic accidents in 2020. In terms of mortality rate, there were 22 road fatalities per million inhabitants, which is lower than in almost all EU countries. Since 2001, the mortality rate in Iceland has declined more than the EU average. Over the past ten years the number of fatalities in Iceland has fluctuated between 4 and 18 fatalities. The number of serious injuries decreased over the same period (-27%).

In most EU countries the numbers of fatalities and serious injuries fell between 2019 and 2020. The COVID pandemic and the associated restrictions in mobility undoubtedly led to a reduction in the number of casualties though the extent to which this was the case is not known.

Table 1. Number of road fatalities and serious injuries (2010 and 2020). Source: CARE

	2010	2020	Trend	EU 2010	EU 2020	EU trend
Fatalities	8	8	/	29611	18834	-36%
Serious injuries	205	149	-27%	/	/	/

Figure 1. Number of road fatalities per million inhabitants (2020). Source: CARE & EUROSTAT

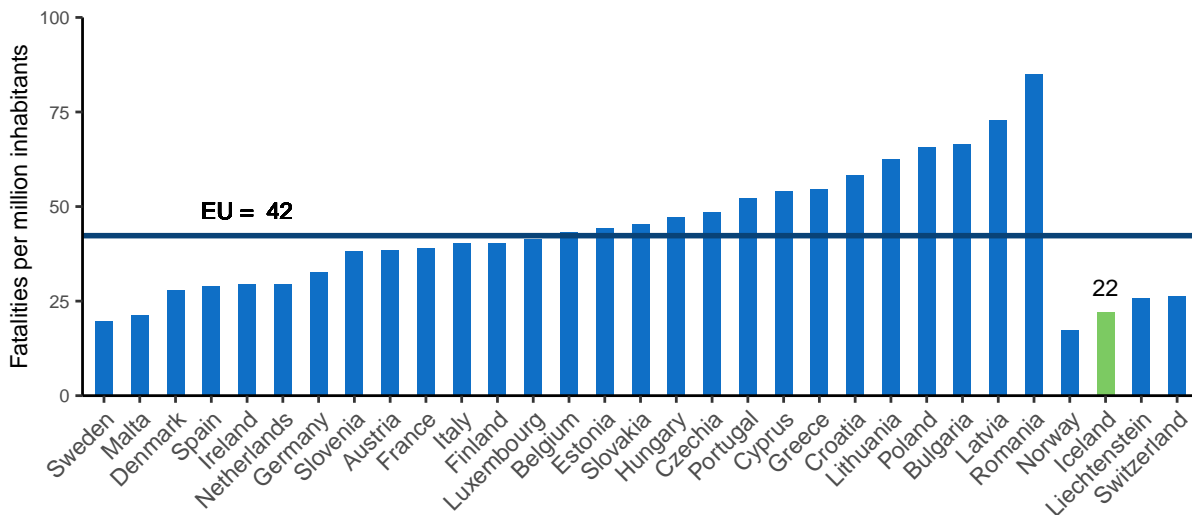


Figure 2. Number of road fatalities (2010-2020). Source: CARE

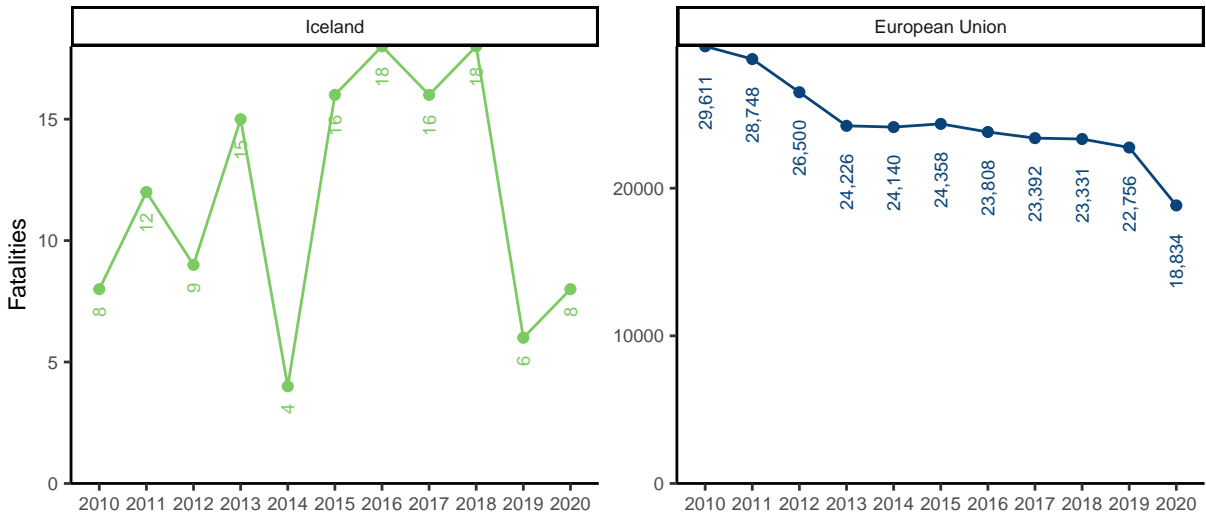


Figure 3. Number of serious injuries (2010-2020). Source: CARE

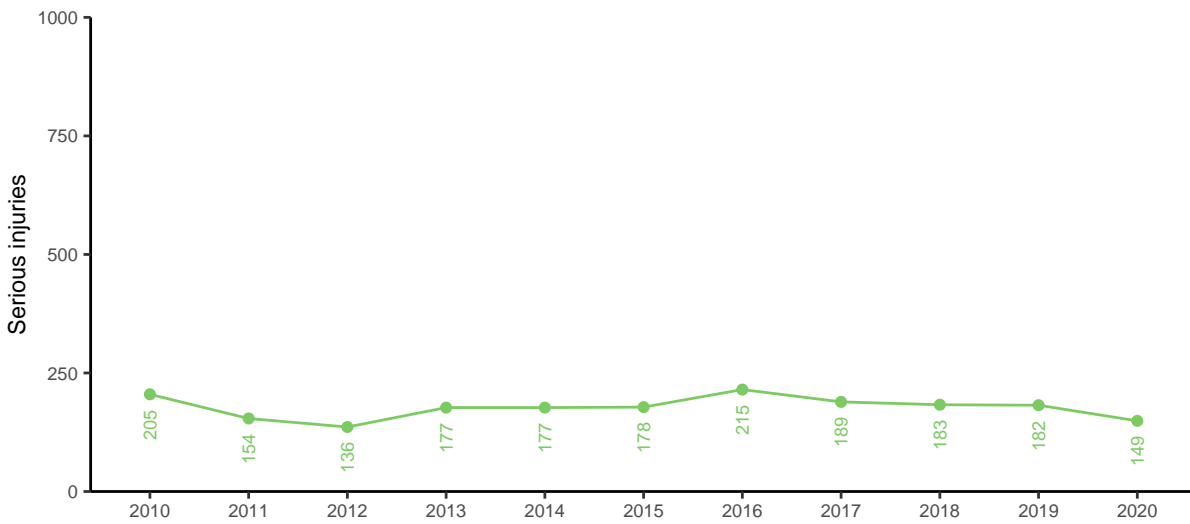
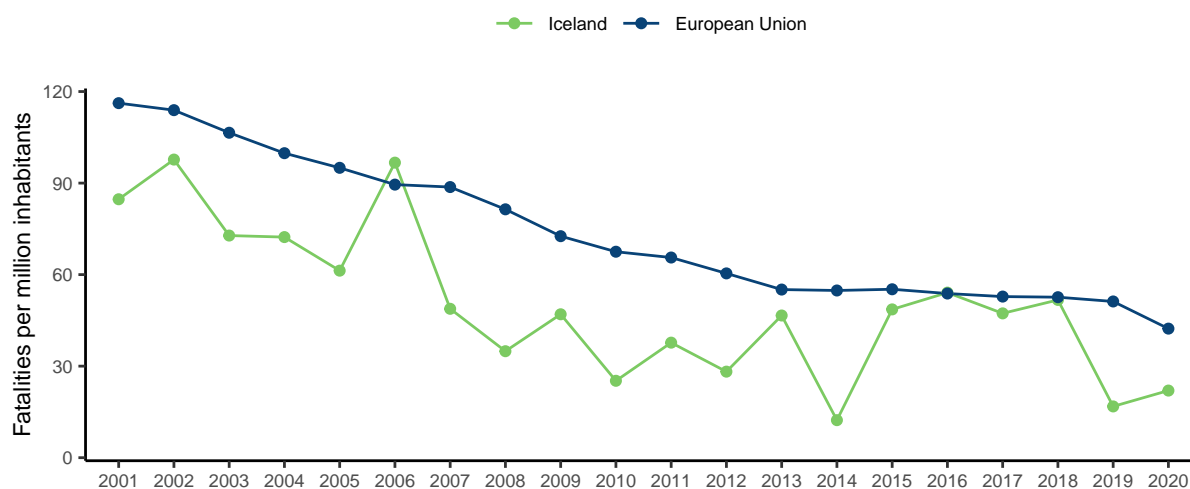
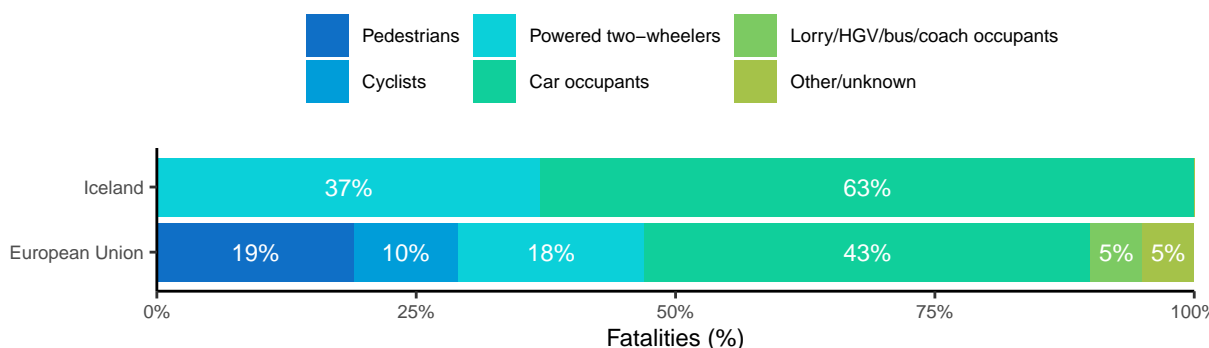


Figure 4. Number of road fatalities per million inhabitants (2001-2020). Source: CARE & EUROSTAT

2.2 Transport modes¹

In 2020, car occupants account for 62% of road fatalities in Iceland. Powered two-wheelers represent the remaining 38%. There were no other road user categories fatally injured. Over the past ten years the number of serious injuries increased for cyclists and car occupants. Half of the road fatalities were involved in a single vehicle crash (i.e. only one vehicle and no other road user is involved).

Figure 5. Number of road fatalities by transport mode (2020). Source: CARE**Table 2.** Average number of road fatalities by transport mode (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Pedestrians	3	0	/	5,793	4,328	-25%
Cyclists	0	0	/	2,023	1,971	-3%
Powered two-wheelers	1	1	/	5,057	3,940	-22%
Car occupants	6	7	/	13,309	9,597	-28%
Lorries, under 3.5t	0	1	/	898	732	-18%
Heavy goods vehicles	0	0	/	590	378	-36%
Bus/coach occupants	0	0	/	102	88	-14%
Other/unknown	0	1	/	1,116	837	/
Total	10	11	/	28,286	21,640	-23%

¹For more details about the categories used in this subsection, please see section 6.2 Definitions.

Table 3. Average number of serious injuries by transport mode (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend
Pedestrians	21	18	-14%
Cyclists	20	30	+50%
Powered two-wheelers	32	21	-34%
Car occupants	77	85	+10%
Lorries, under 3.5t	5	3	/
Heavy goods vehicles	1	3	/
Bus/coach occupants	3	6	/
Other/unknown	5	5	/
Total	165	171	+4%

Table 4. Average number of fatalities among vulnerable road users (pedestrians, cyclists and mopeds) involved in crashes involving cars, buses or coaches, and lorries or heavy goods vehicles (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Crashes involving buses or coaches	1	0	/	258	173	-33%
Crashes involving cars	2	0	/	5,507	4,306	-22%
Crashes involving lorries or heavy goods vehicles	0	0	/	1,721	1,321	-23%

Table 5. Average number of road fatalities in urban areas by transport mode (2010-2012 and 2018-2020). Source: CARE

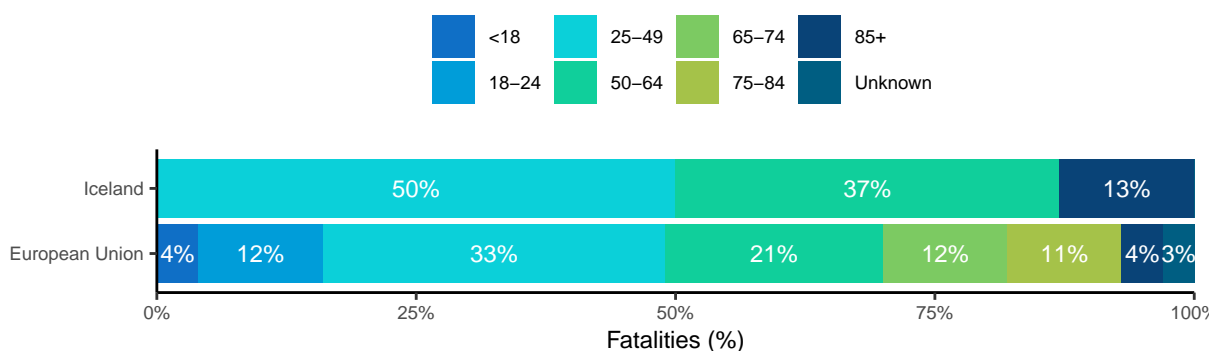
	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Pedestrians	2	0	/	3,944	3,079	-22%
Cyclists	0	0	/	1,113	1,125	+1%
Powered two-wheelers	0	0	/	2,200	1,562	-29%
Car occupants	1	1	/	2,883	2,109	-27%
Lorries, under 3.5t	0	0	/	149	137	-8%
Heavy goods vehicles	0	0	/	82	36	-56%
Bus/coach occupants	0	0	/	24	36	+50%
Other/unknown	0	0	/	219	254	/
Total	3	1	/	10,803	8,406	-22%

Table 6. Average number of road fatalities in single vehicle crashes by transport mode (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Cyclists	0	0	/	299	400	+34%
Powered two-wheelers	0	0	/	1,746	1,429	-18%
Car occupants	4	3	/	5,905	4,187	-29%
Lorries, under 3.5t	0	1	/	365	271	-26%
Heavy goods vehicles	0	0	/	241	143	-41%
Bus/coach occupants	0	0	/	40	33	-18%
Other/unknown	0	1	/	327	309	/
Total	4	5	/	8,923	6,772	-24%

2.3 Age

The distribution of road fatalities across age groups in Iceland is different from that for the European Union. People aged 25 to 49 represent half of road fatalities, while they are 33% in the European Union. Over time the number of serious injuries increased for most age groups except for the 18 to 24 year group.

Figure 6. Number of road fatalities by age group (2020). Source: CARE**Table 7.** Average number of road fatalities by age group (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
<18	2	1	/	1,503	918	-39%
18-24	2	1	/	4,398	2,589	-41%
25-49	2	4	/	10,457	7,311	-30%
50-64	2	3	/	5,273	4,605	-13%
65-74	1	1	/	2,730	2,627	-4%
75-84	2	1	/	2,775	2,414	-13%
85+	0	0	/	882	1,075	+22%
Unknown	0	0	/	738	360	/
Total	10	11	/	28,286	21,640	-23%

Table 8. Average number of serious injuries by age group (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend
<18	29	30	+3%
18-24	27	18	-33%
25-49	62	71	+15%
50-64	29	34	+17%
65-74	11	11	/
75-84	6	6	/
85+	1	2	/
Unknown	0	0	/
Total	165	171	+4%

2.4 Gender

The high proportion of males among total road fatalities in Iceland (88%) is similar to the EU average. This gender pattern apparent throughout the EU can be explained by differences in relation to frequency of transport use and to behaviour.

Figure 7. Number of road fatalities by gender (2020). Source: CARE

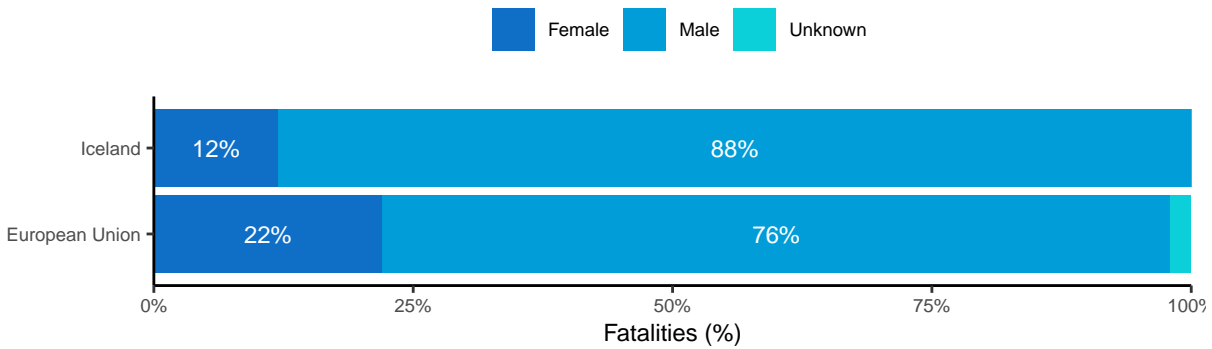


Table 9. Average number of road fatalities by gender (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Female	3	3	/	6,655	4,960	-25%
Male	6	8	/	21,519	16,659	-23%
Unknown	0	0	/	1,310	254	/
Total	10	11	/	28,286	21,640	-23%

Table 10. Average number of serious injuries by gender (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend
Female	54	63	+17%
Male	111	108	-3%
Unknown	0	0	/
Total	165	171	+4%

2.5 Area

The large majority of fatalities occurred on rural roads (87%) and a small percentage on urban roads (13%). Over the past ten years there has been an increase in the number of serious injuries on rural roads.

Figure 8. Number of road fatalities by road type (2020). Source: CARE

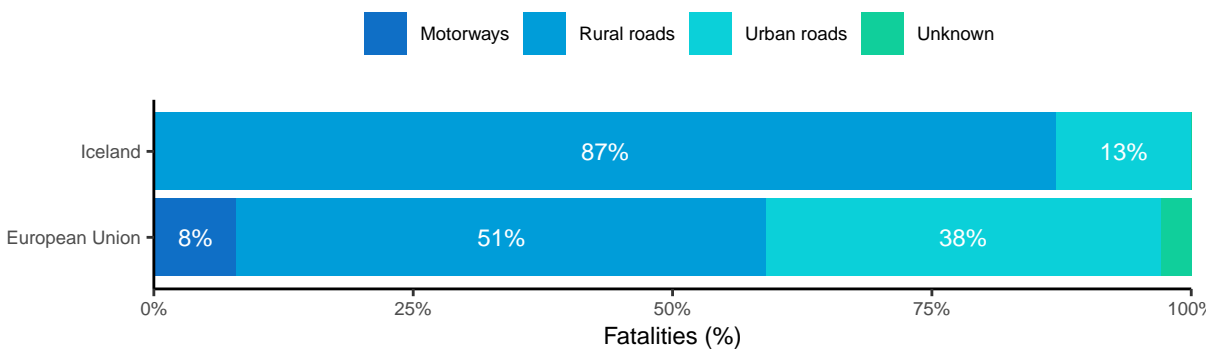


Table 11. Average number of road fatalities by road type (2010-2012 and 2018-2020). Source: CARE

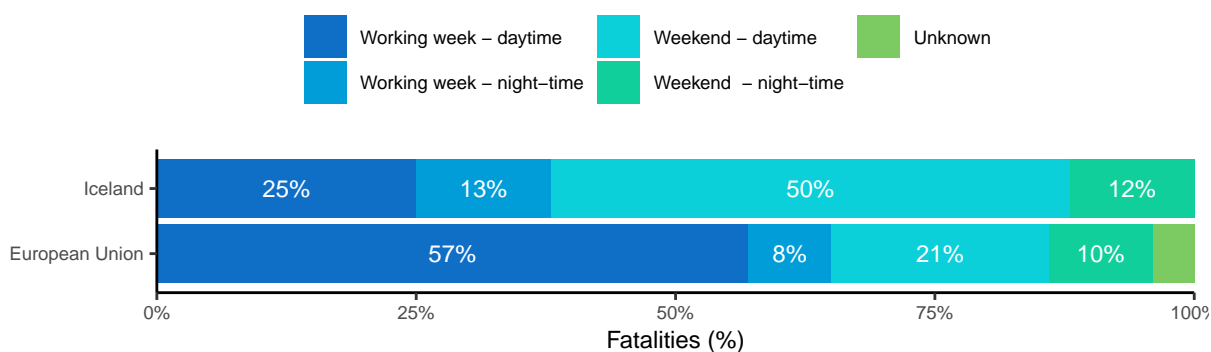
	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Motorway	/	/	/	2,072	1,812	-13%
Rural	7	10	/	15,280	11,430	-25%
Urban	3	1	/	10,803	8,406	-22%
Unknown	/	/	/	908	543	/
Total	10	11	/	28,286	21,640	-23%

Table 12. Average number of serious injuries by road type (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend
Motorway	/	/	/
Rural	74	91	+23%
Urban	91	80	-12%
Unknown	/	/	/
Total	165	171	+4%

2.6 Time ²

More than half of the road fatalities in 2020 in Iceland occurred during the daytime in the weekends.

Figure 9. Number of road fatalities by period of time (2020). Source: CARE**Table 13.** Average number of road fatalities by period of time (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Working week - daytime	6	6	/	15,495	12,506	-19%
Working week - night-time	1	0	/	2,573	1,848	-28%
Weekend - daytime	3	3	/	6,383	4,974	-22%
Weekend - night-time	0	1	/	3,549	2,327	-34%
Unknown	/	/	/	4,226	562	/
Total	10	11	/	28,286	21,640	-23%

²For more details about the time periods used in this subsection, please see section 6.2 Definitions.

2.7 Road conditions

Figure 10. Number of road fatalities by surface conditions (2020). Source: CARE

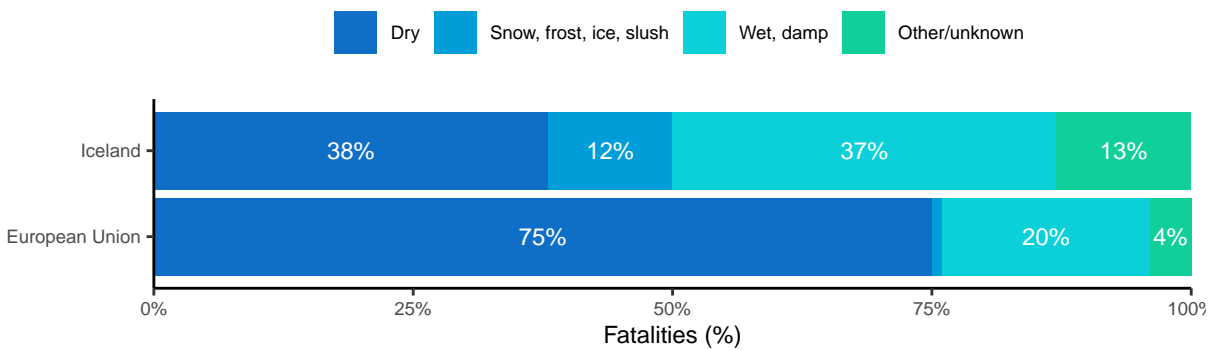


Table 14. Average number of road fatalities by surface conditions (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Dry	5	5	/	21,101	16,582	-21%
Snow, frost, ice, slush	0	1	/	988	362	-63%
Wet, damp	3	2	/	5,638	4,328	-23%
Other/unknown	/	/	/	2,486	580	/
Total	10	11	/	28,286	21,640	-23%

Figure 11. Number of road fatalities by light conditions (2020). Source: CARE

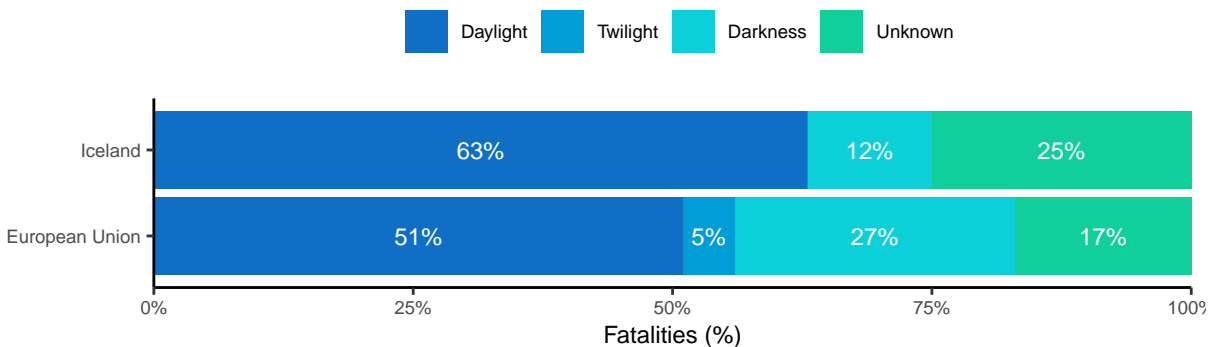


Table 15. Average number of road fatalities by light conditions (2010-2012 and 2018-2020). Source: CARE

	2010 - 2012	2018 - 2020	Trend	EU 2010 - 2012	EU 2018 - 2020	EU trend
Darkness	2	2	/	8,922	6,275	-30%
Daylight	5	6	/	13,717	11,235	-18%
Twilight	0	1	/	1,499	1,156	-23%
Unknown	2	3	/	5,326	3,729	/
Total	10	11	/	28,286	21,640	-23%

3 Road safety performance indicators

3.1 Behaviour of road users

For Iceland there is no data available about behaviour in traffic that is comparable with EU countries.

3.2 Infrastructure

The overall road network in Iceland shows very low road density in comparison with the EU average. There are no motorways in Iceland. The indicator for the quality of road infrastructure is based on the judgements made by road users themselves. For Iceland, a score of 4.1 (on a value scale from 1 to 7) is given, which is a rather low compared to other countries.

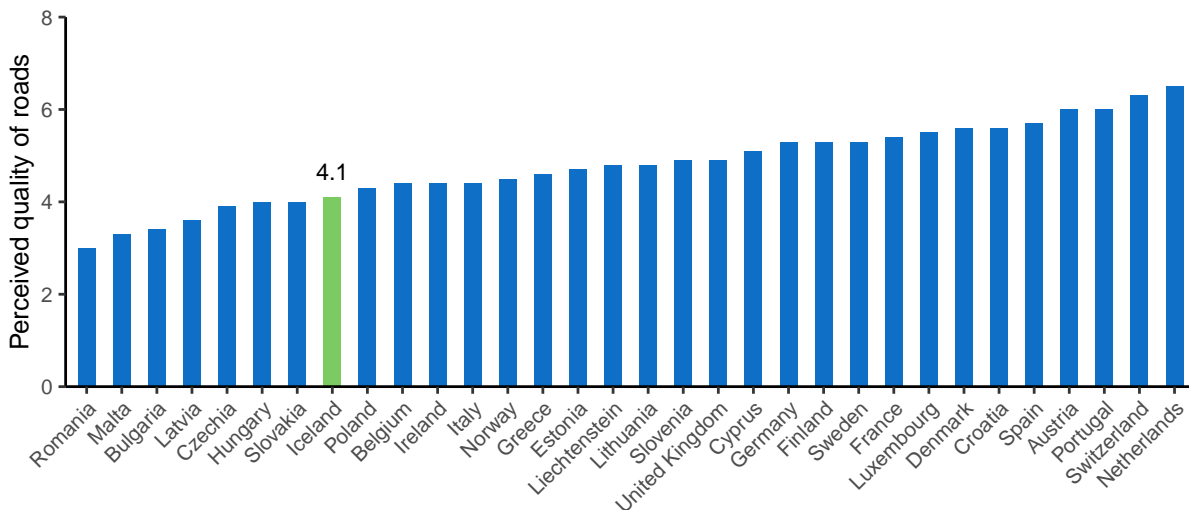
3.2.1 Road density

Table 16. Road density. Source: EUROSTAT (2020)

	Iceland	European Union
Total	126 km road/1000 km ²	918 km road/1000 km ²

3.2.2 Road quality

Figure 12. Perceived quality of the road infrastructure (1 = extremely poor, 7 = among the best in the world). Source: World Economic Forum, Executive Opinion Survey (2019)



4 Road safety policy and measures

4.1 Legislation

National road safety legislation in the Iceland reflects the situation in the majority of EU countries with some exceptions. There are no motorways in Iceland, but according to legislation the maximum speed limit would be 110 km/h which is lower than in most countries (130 km/h). Furthermore the alcohol limit for the general population is 0.2 g/l while in most countries the limit is 0.5 g/l.

Table 17. National road safety legislation. Source: WHO (2018)

	Iceland	EU countries
Speed limits for passenger cars		
Urban roads	50 km/h	50 km/h: 27
Rural roads	90 km/h	80 km/h: 5; 90 km/h: 17; 100 km/h: 3; 110 km/h: 2
Motorways	110 km/h	No limit: 1; 140 km/h: 2; 130 km/h: 14; 120 km/h: 6; 100 km/h: 1
Allowed BAC (blood alcohol concentration) levels		
General population	0.2 g/l	0 g/l: 3; 0.2 g/l: 3; 0.4 g/l: 1; 0.5 g/l: 19; 0.8 g/l: 1
Novice drivers	0.2 g/l	0 g/l: 8; 0.1 g/l: 1; 0.2 g/l: 12; 0.3 g/l: 1; 0.5 g/l: 4; 0.8 g/l: 1
Professional drivers	0.2 g/l	0 g/l: 7; 0.1 g/l: 1; 0.2 g/l: 10; 0.3 g/l: 1; 0.5 g/l: 7; 0.8 g/l: 1
Seatbelt requirement		
Drivers	Yes	Yes: 27; No: 0
Front passengers	Yes	Yes: 27; No: 0
Rear passengers	Yes	Yes: 27; No: 0
Transport of children		
Child restraint required	Up to 135 cm	Up to 150 cm: 12; Up to 140 cm: 1; Up to 135 cm: 12; Up to 10 yrs: 1
Children in front seat of passenger cars	Allowed in a child restraint if there are no active airbags. Allowed above 150cm with active airbags.	Prohibited under 10 yrs: 1; Prohibited under 12 yrs or 135 cm: 1; Prohibited under 150 cm: 1; Prohibited under 135 cm: 1; Allowed in a child restraint: 22; Not restricted: 1
Children passengers on motorcycles	Not restricted	Not restricted: 9; Prohibited under certain age/height: 18
Motorcycle helmets		
Applies to driver	Yes	Yes: 27; No: 0
Applies to passengers	Yes	Yes: 27; No: 0
Applies to all roads	Yes	Yes: 27; No: 0
Applies to all engines	Yes	Yes: 25; No: 2
Helmet fastening required	No	Yes: 19; No: 8
Standard referred to and / or specified	No	Yes: 19; No: 8
Mobile phone restriction		
Applies to hand-held phone use	Yes	Yes: 26; No: 1
Applies to hands-free phone use	No	Yes: 0; No: 27

4.2 Enforcement

According to an international respondent consensus, in which the effectiveness of road safety enforcement is measured on a ten-point scale, Iceland scores above the EU average for almost all legislation surveyed.

Table 18. Effectiveness of enforcement according to an international respondent consensus (scale = 0-10). Source: WHO (2018)

	Iceland	European average
Speed legislation	7	6.8
Drink-driving legislation	7	7
Seatbelt legislation	9	7
Child restraint system legislation	9	7
Motorcycle helmet legislation	9	8

4.3 Road infrastructure

Table 19. Infrastructure-related policy. Source: WHO (2018)

	Iceland	EU countries
Audits or star rating required for new road infrastructure	Yes	Yes: 10 Partial: 17
Inspections / star rating of existing roads	Yes	Yes: 26 No: 1
Design standards for the safety of pedestrians / cyclists	Partial	Yes: 25 Partial: 2 No: 0
Investments to upgrade high risk locations	Yes	Yes: 21 No: 6
Policies & investment in urban public transport	Yes	Yes: 24 No: 3
Policies promoting walking and cycling	Yes	Yes: 21 Subnational: 3 No: 3

4.4 Post-crash care

Table 20. Policy related to post-crash care. Source: WHO (2018)

	Iceland	EU countries
Trauma registry	National	National: 13 Subnational: 4 Some facilities: 0 None: 7
National assessment of emergency care system	No	Yes: 9 No: 18
Provider training and certification - Prehospital providers - Formal certification pathway	Yes	Yes: 19 No: 6
Provider training and certification - Nurses - Post graduate courses in emergency and trauma care	Yes	Yes: 21 No: 5
Provider training and certification - Specialist doctors - Emergency medicine	Yes	Yes: 21 Subnational: 0

5 Structure and culture

5.1 Country characteristics

Population density in Iceland is much lower than the EU average, and its population is mainly settled in rural areas. The percentage of elderly (65+) in the population (15%) is smaller than the EU average. Iceland's GDP per capita is above that of the European Union.

Table 21. Country characteristics. Source: EUROSTAT and IRTAD

	European Union	Iceland
Population-related data (2021)		
Population (2021)	447218763	368792
Population density (inhabitants/km ²)	106	4
% Children (0-14)	15%	19%
% Adults (15-64)	64%	67%
% Elderly (65+)	21%	15%
Urbanization (2018)		
% living in cities	39%	63%
% living in suburbs and towns	32%	16%
% living in rural areas	29%	22%
Economic data		
GDP per capita (EUR, 2021)	32438.4	58713.9
Unemployment rate (2021)	7%	6%
% GDP dedicated to road spending (2020)	0.7%	0.9%

5.2 Structure of road safety management

Table 22. Road safety management structure. Source: National sources

Key functions	Key actors
Formulation of national road safety strategy	Ministry of Interior
	The Icelandic Road and Coastal Administration
	Icelandic Transport Authority
	The Icelandic Transportation Safety Board
Monitoring of the road safety development	The Icelandic Road and Coastal Administration
	Icelandic Transport Authority
Improvements in road infrastructure	The Icelandic Road and Coastal Administration
Improvement in vehicles	Icelandic Transport Authority
Improvement in road user education	Icelandic Transport Authority
	Local authorities
Publicity campaigns	The Icelandic Road and Coastal Administration
	Icelandic Transport Authority
Enforcement of traffic laws	The Police Districts in Iceland
	The national Commissioner of the Icelandic Police
Other relevant actors	safetravel.is
	Icelandic Automobile Association
	TMS Consultancy

6 Notes

6.1 Data sources

CARE

(Community database on Accidents on the Roads in Europe) All information in part 1 of this document (road safety outcomes) is based on data in the CARE database. The European average is based on the average of the 27 EU countries.

Date of extraction: 4th of October, 2022. There may be small discrepancies between the CARE data presented in the report and the accident data published in national reports.

ESRA (E-Survey of Road Users' Attitudes)

The European average is the average of 20 European countries (Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom)

<https://www.esranet.eu/en/>

ETSC (European Transport Safety Council)

Car safety data was retrieved from <https://etsc.eu/wp-content/uploads/PIN-Flash-30-Final.pdf>

Data about speeding was retrieved from <https://www.etsc.eu/pinflash36>

IRTAD (International Traffic Safety Data and Analysis Group)

Data is retrieved from the OECD database: <https://stats.oecd.org/>

Date of extraction: 11th of October 2022

WHO (World Health Organization)

The data are retrieved from the WHO Global Status Report on Road Safety that was published in 2018. The European average is based on the average of the 27 EU countries.

https://www.who.int/violence_injury_prevention/road_safety_status/2018/en/

World Economic Forum

Data is retrieved from https://www.theglobaleconomy.com/rankings/roads_quality/

Date of extraction: 11th of October 2022

6.2 Definitions

Accident / Crash

Any accident involving at least one road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one injured or killed person (Source: UNECE/ITF/Eurostat Glossary). Note: the definition of "injury" varies considerably among EU countries thus affecting the reliability of cross country comparisons.

Bicycle

Vehicle with at least 2 wheels, without engine. In some cases it can also use electric power.

Bus or Coach

Bus: passenger-carrying vehicle, most commonly used for public transport, having more than 16 seats for passengers. Coach: passenger-carrying vehicle, having more than 16 seats for passengers. Most commonly used for interurban movements and tourist trips. To differentiate from other types of bus, a coach has a luggage hold separate from the passenger cabin.

CARE EU Average and aggregated numbers

In the second section “Road safety outcomes”, we provide EU averages and aggregated figures based on the most recent figures available (2020). However, as some countries have not yet provided their official data for that year, we have produced the EU averages and aggregated data by imputing figures based on data from previous years. The aggregated EU averages and figures in this report may therefore differ slightly from the aggregated averages and figures for 2020 that will be published in the future.

Fatal crash

Crash with at least one person killed regardless the injury severity of any other persons involved.

Fatalities

Total number of persons fatally injured within 30 days of the road crash; correction factors applied when needed. Confirmed suicide and natural death are not included.

Lorry, under 3.5 tonnes

Goods vehicle under 3.5t maximum gross weight. Smaller motor vehicle used only for the transport of goods.

Pedestrian

Person on foot. Included are occupants or persons pushing or pulling a child’s carriage, an invalid chair, or any other small vehicle without an engine. Also included are persons pushing a cycle, moped, roller-skating, skateboarding, skiing or using similar devices. Does not include persons in the act of boarding or alighting from a vehicle. (Source: UNECE/ITF/Eurostat Glossary and CADAS Glossary) Unilateral pedestrian crashes (e.g. pedestrian falls) are excluded.

Powered two-wheelers

Driver or passenger of either a moped (two or three wheeled vehicle equipped with engine size of maximum 50cc and maximum speed that does not exceed 45 km/h. A moped can also have an electric motor. Speed pedelecs and electric powered bicycles that offer pedal assistance up to 45 km/h, also belong to this category of vehicles.) or a motorcycle (motor vehicle with two or three wheels, with an engine size of more than 50 cc. A motorcycle can also have an electric motor.).

Seriously injured (at least 30 days)

The CARE database includes the number of persons seriously injured who have been hospitalised for at least 24 hours. An alternative source is MAIS (Maximum Abbreviated Injury Scale) which is a globally accepted trauma scale used by medical professionals. The injury score is determined at the hospital with the help of a detailed classification key. The score ranges from 1 to 6, with levels 3 to 6 considered as serious injuries.

Working week – Daytime

Monday to Friday 6.00 a.m. to 9.59 p.m.

Working week – Night-time

Monday 10 p.m. to Tuesday 5.59 a.m.

Tuesday 10 p.m. to Wednesday 5.59 a.m.

Wednesday 10 p.m. to Thursday 5.59 a.m.

Thursday 10 p.m. to Friday 5.59 a.m.

Weekend - Daytime

Saturday to Sunday 6.00 a.m. to 9.59 p.m.

Weekend - Night-time

Friday 10 p.m. to Saturday 5.59 a.m.

Saturday 10 p.m. to Sunday 5.59 a.m.

Sunday 10 p.m. to Monday 5.59 a.m.