



# European Road Safety Observatory

Facts and Figures - Urban areas - 2022

This document is part of a series of 16 *Facts and Figures* reports. The purpose of these *Facts and Figures* reports is to provide recent statistics related to a specific road safety topic, for example a specific age group or transport mode. The *Facts and Figures* reports replace the Basic Fact Sheets series that were available until 2018 (containing data up to 2016). The most recent figures in this *Facts and Figures* report of 2022 refer to 2020. These reports can be found on the ERSO website ([https://road-safety.transport.ec.europa.eu/statistics-and-analysis/data-and-analysis/facts-and-figures\\_en](https://road-safety.transport.ec.europa.eu/statistics-and-analysis/data-and-analysis/facts-and-figures_en)).

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Sources	Information in this document is based largely on data in the CARE database (Community database on Accidents on the Roads in Europe). Other data are taken from Eurostat. Date of extraction: 12 May 2022

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# 1 Key Facts

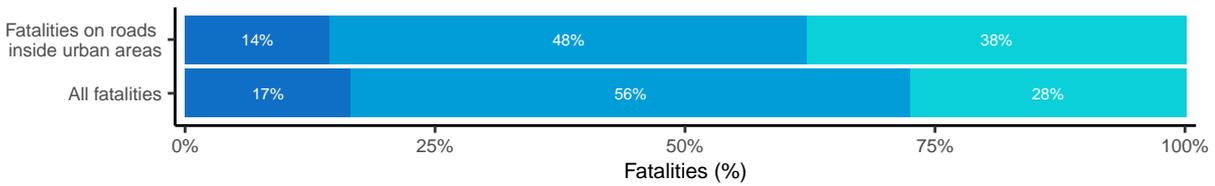
This Facts and Figures report looks at fatalities on roads inside urban areas, which means public road inside urban boundary signs. All differences reported were derived from the available data, the statistical significance of the differences between values has not been tested. A similar report on roads outside urban areas has also been published.

## Fatalities on roads inside urban areas, 2020

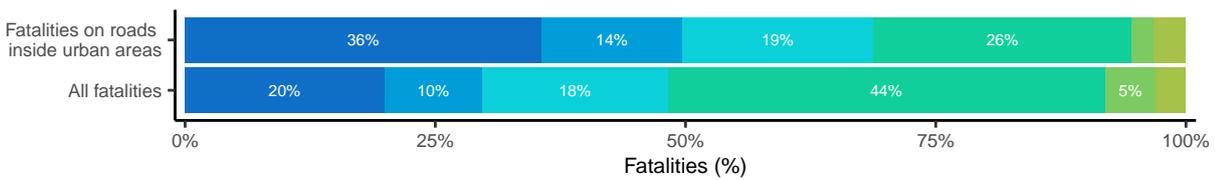
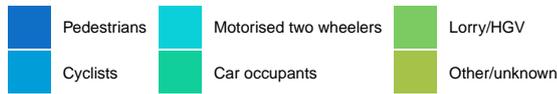


- 7,461 fatalities
- 40% of all road fatalities
- 32% decrease since 2011, compared to 34% decrease on all roads

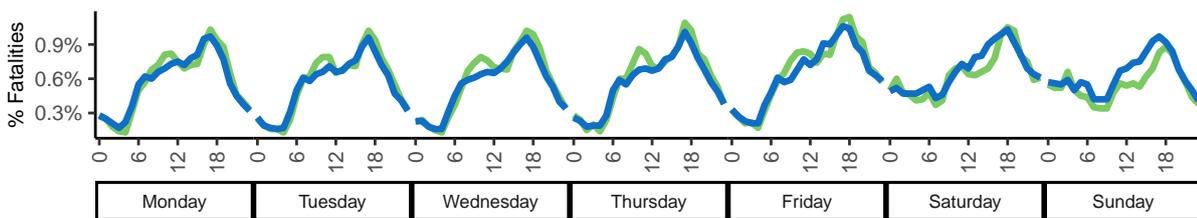
### Age



### Transport modes involved



### Day of the week and hour



## 2 Summary

In 2020, 40% of all road fatalities in the EU27 occurred on a road inside urban areas. **The number of fatalities on roads inside urban areas decreased by 32% between 2011 and 2020, which is similar to the 34% decrease on all roads over the same time period.**

**Road fatalities on roads inside urban areas also differed in other respects when compared to all fatalities combined:**

- The proportion of 65+ year old fatalities on roads inside urban areas was higher compared to all fatalities. In 2020, 38% of fatalities on roads inside urban areas were 65 years or older, compared to 28% of all fatalities.
- Vulnerable road users (pedestrians, cyclists, powered two-wheelers) make up 70
- The share of fatalities on roads inside urban areas was proportionally higher during the daytime of the working week, especially during the morning hours, and lower during the daytime at the weekend.

The highest mortality rate (number of road fatalities per million inhabitants) on roads inside urban areas was observed in Romania. Sweden had the lowest mortality rate. In general, **the mortality rate on roads inside urban areas was higher in Eastern EU countries compared to other parts of the EU.** Mortality rate is an important indicator, but does not take into account differences in the general road safety performance across countries. It is important to also look at the proportion of fatalities on roads inside urban areas within the total number of road fatalities: **the proportion was highest in Eastern Europe**, and was also high in parts of Western Europe (mainly Italy).

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### Basic definitions

*Road inside urban areas:*

Public road inside urban boundary signs.

*Fatalities:*

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

*Seriously injured:*

Total number of seriously injured persons corrected by correction factors when needed. Injured (although not killed) in the road crash and, in principle, hospitalised for at least 24 hours within 30 days from the crash.

### More detailed data:

This Facts and Figures report is accompanied by an Excel file (available online) containing a large set of additional detailed data. Each sheet in the excel file corresponds to a Figure/Table in the report.

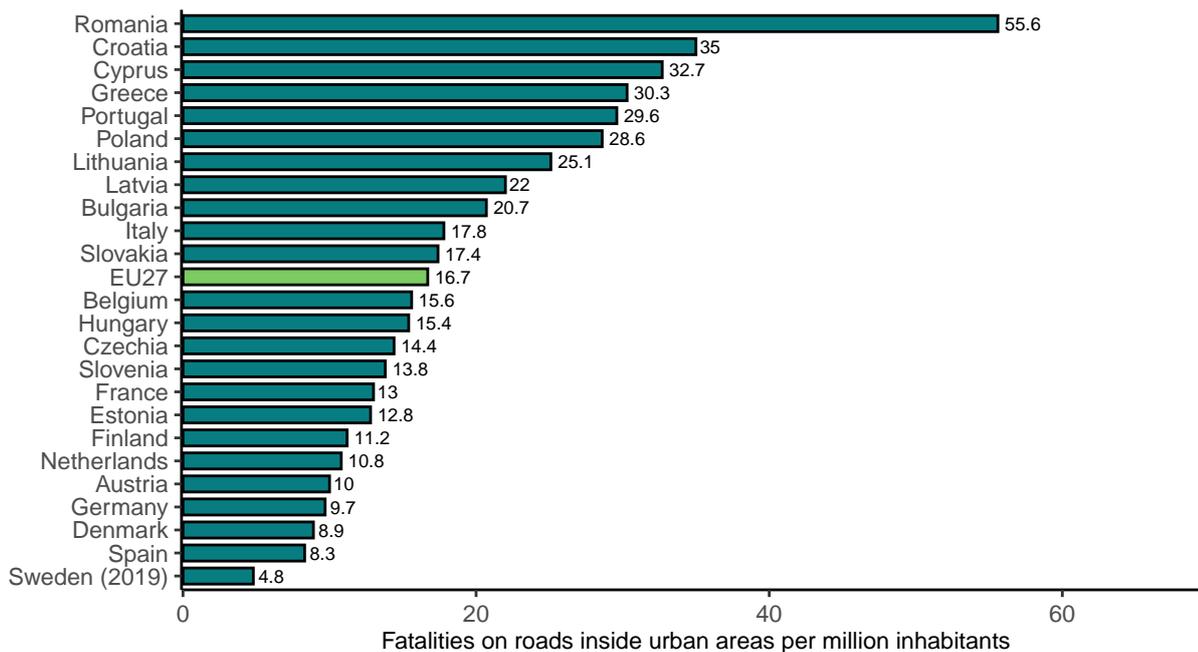
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### 3 Main trends

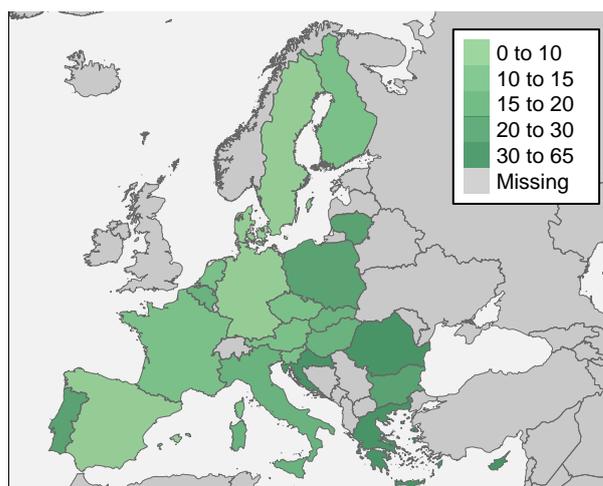
#### 3.1 Mortality rate: number of road fatalities per million inhabitants

**The mortality rate is relatively higher in Eastern Europe.** Romania has the highest mortality rate, and the mortality rate is lowest in Sweden. Of the countries with the highest number of fatalities on roads inside urban areas (Poland, Romania, Italy, France and Germany), only France and Germany have a mortality rate below the European average.

**Figure 1.** Fatalities on roads inside urban areas per million inhabitants per country in the EU27 (2020). Source: CARE



Notes:  
 – Ireland and Malta are not included in the Figure because there is no data for the last years  
 – Luxembourg is not included in the Figure because there are fewer than 10 fatalities



© EuroGeographics for the administrative boundaries

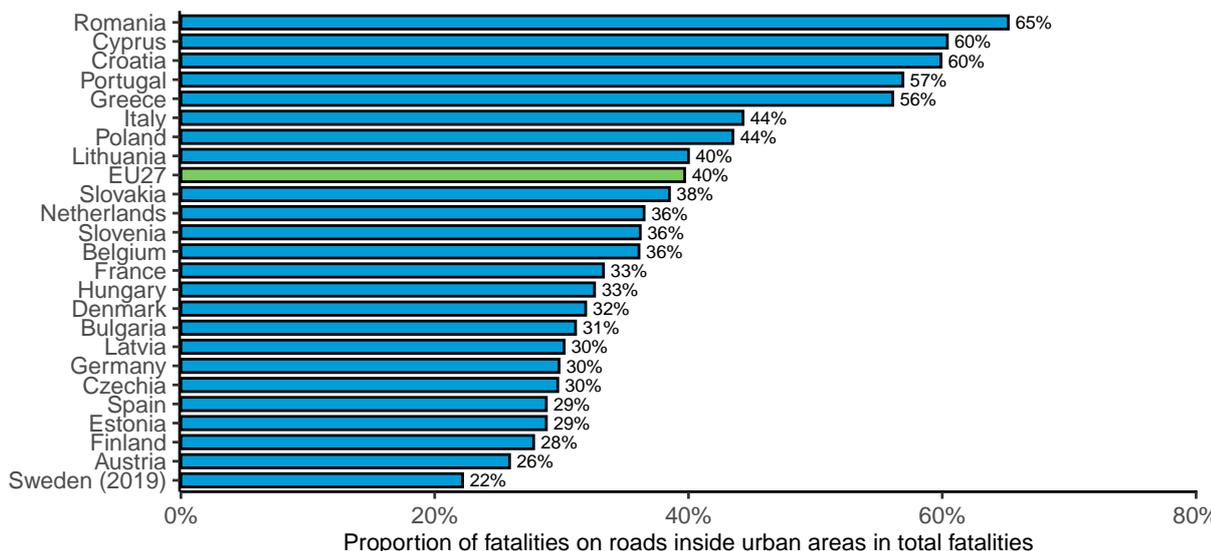
### 3.2 Number of fatalities on roads inside urban areas as a proportion of total fatalities

The mortality rate is an important indicator, but does not take into account differences in the general road safety performance across countries. In other words, the mortality rate on roads inside urban areas in a specific country may be high because the total mortality rate for all road users in that country is also high. Therefore, it is important to also look at the proportion or share of fatalities on roads inside urban areas within the total number of road fatalities.

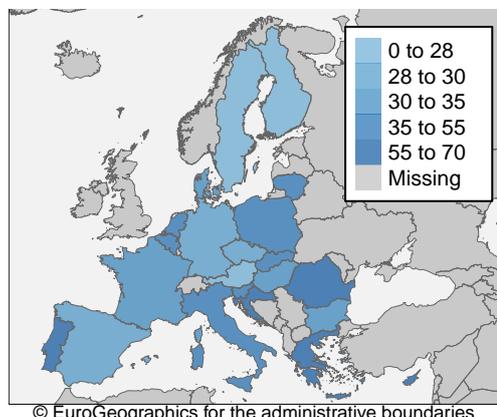
**The proportion of fatalities on roads inside urban areas in total fatalities tends to be high in Eastern Europe** and parts of Western Europe (mainly in Italy). Sweden has the lowest proportion of fatalities on roads inside urban areas, while this proportion is highest in Romania.

Differences between countries in the proportion of fatalities on roads inside urban areas can also be explained, in part, by the degree of urbanisation, the make-up of the road network and the relative traffic levels on urban and rural roads in each country.

**Figure 2.** Proportion of fatalities on roads inside urban areas in the total number of fatalities, per country in the EU27 (2020). Source: CARE



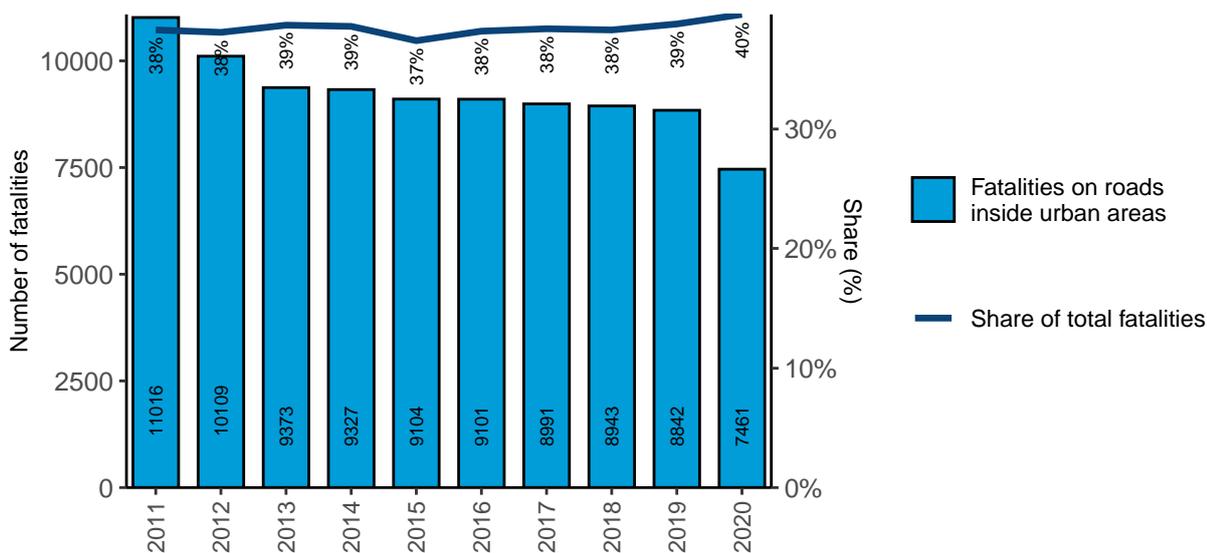
Notes:  
 – Ireland and Malta are not included in the Figure because there is no data for the last years  
 – Luxembourg is not included in the Figure because there are fewer than 10 fatalities



### 3.3 Trend in the number of fatalities

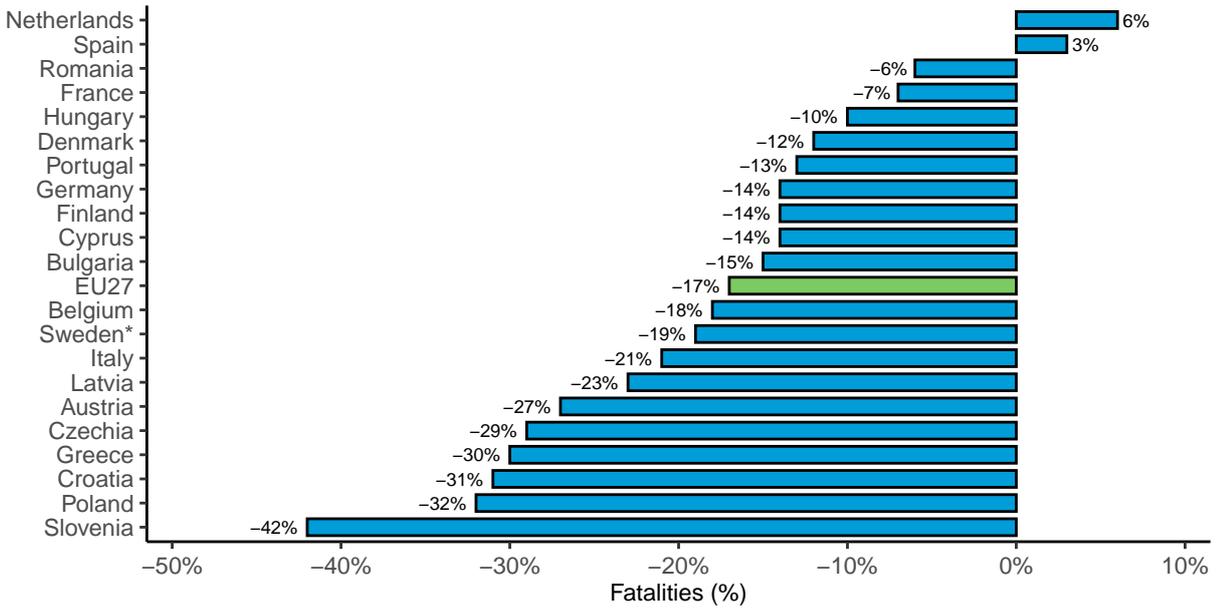
In 2020, 40% of all road fatalities in the EU27 occurred on roads inside urban areas. The relative proportion of fatalities on these roads has increased slightly in the time period 2011-2020. **The number of fatalities inside urban areas decreased by 32% between 2011 and 2020, while the total number of fatalities decreased by 34% over the same time period.**

**Figure 3.** Annual number of fatalities on roads inside urban areas, and their share in the total number of fatalities in the EU27 (2011-2020). Source: CARE



The number of fatalities inside urban areas decreased in almost all European Member States. The Netherlands and Spain are the exception to this rule, in these two countries the number of fatalities inside urban areas has increased during the last decade. Among the EU Member States with the highest number of fatalities inside urban areas, Italy and Poland show a more pronounced decline compared to the EU average, while the decline in both Romania and France is among the least favorable in the EU. There was a notable decrease in the number of fatalities inside urban areas in Slovenia.

**Figure 4.** Percentage change in the number of fatalities on roads inside urban areas per country in the EU27 (2018-2020 and 2011-2013). Source: CARE



Notes:

- Countries that are not included in the Figure are Estonia, Ireland, Lithuania, Malta and Slovakia because there is no data on fatalities inside urban areas in the time series 2011–2020
- The trend for Luxembourg is not shown because there are fewer than 10 fatalities in one year
- \*For Sweden, the trend is calculated by comparing the time period 2010–2012 with the time period 2017–2019

**Table 1.** Number of and trend in fatalities on roads inside urban areas per country in the EU27 and EFTA (2011-2013 versus 2018-2020). Source: CARE

	2011	2018	2019	2020	Trend 2018 - 2020 vs 2013 - 2011	Miniplot: trend since 2010
<b>Austria</b>	139	102	104	89	-27%	
<b>Belgium</b>	285	197	214	180	-18%	
<b>Bulgaria</b>	235	213	232	144	-15%	
<b>Croatia</b>	252	175	164	142	-31%	
<b>Cyprus</b>	40	26	32	29	-14%	
<b>Czechia</b>	280	217	187	154	-29%	
<b>Denmark</b>	69	49	64	52	-12%	
<b>Estonia</b>	25	13	17	17		
<b>EU27</b>	<b>11016</b>	<b>8943</b>	<b>8842</b>	<b>7461</b>	<b>-17%</b>	
<b>Finland</b>	74	62	36	62	-14%	
<b>France</b>	1096	963	1034	845	-7%	
<b>Germany</b>	1115	984	932	810	-14%	
<b>Greece</b>	559	367	370	325	-30%	
<b>Hungary</b>	234	238	223	150	-10%	
<b>Iceland</b>	3	2	0	1		
<b>Ireland</b>	38	-	-	-		
<b>Italy</b>	1744	1401	1331	1061	-21%	
<b>Latvia</b>	53	41	40	42	-23%	
<b>Lithuania</b>	-	71	89	70		
<b>Luxembourg</b>	7	1	3	5		
<b>Malta</b>	-	13	-	-		
<b>Netherlands</b>	233	261	232	188	6%	
<b>Norway</b>	41	27	18	23		
<b>Poland</b>	1959	1251	1177	1084	-32%	
<b>Portugal</b>	487	380	394	305	-13%	
<b>Romania</b>	1271	1183	1213	1074	-6%	
<b>Slovakia</b>	-	91	94	95		
<b>Slovenia</b>	47	26	27	29	-42%	
<b>Spain</b>	457	489	519	395	3%	
<b>Sweden</b>	80	77	49	-		
<b>Switzerland</b>	133	103	65	104	-27%	

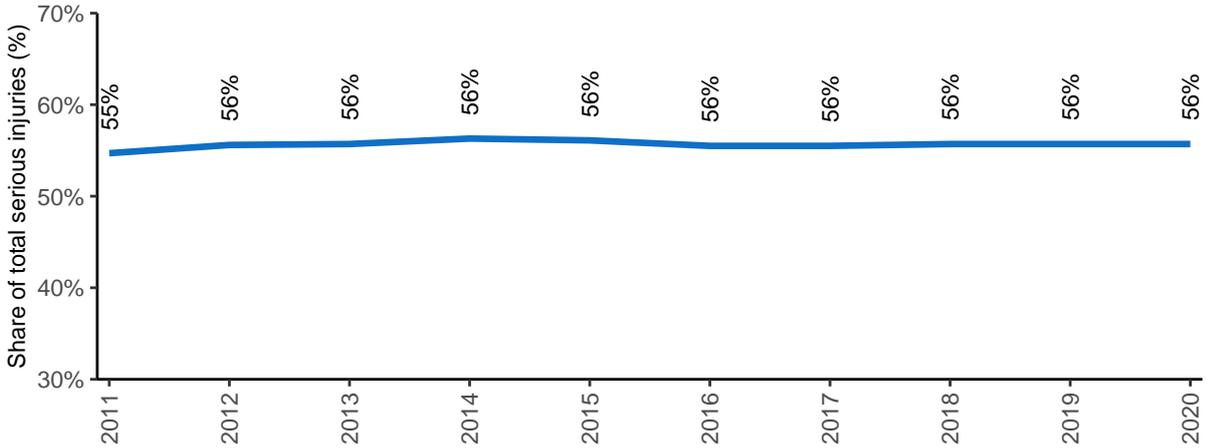
Note:

The trend is not shown if there are fewer than 10 fatalities in one year

### 3.4 Serious injuries

While 40% of fatalities occur on roads inside urban areas, 56% of all serious injuries in the EU27 in 2020 occurred on such roads. The relative proportion of serious injuries has remained constant over the time period 2011-2020.

**Figure 5.** Share of serious injuries on roads inside urban areas in the total number of serious injuries in the EU27 (2011-2020). Source: CARE

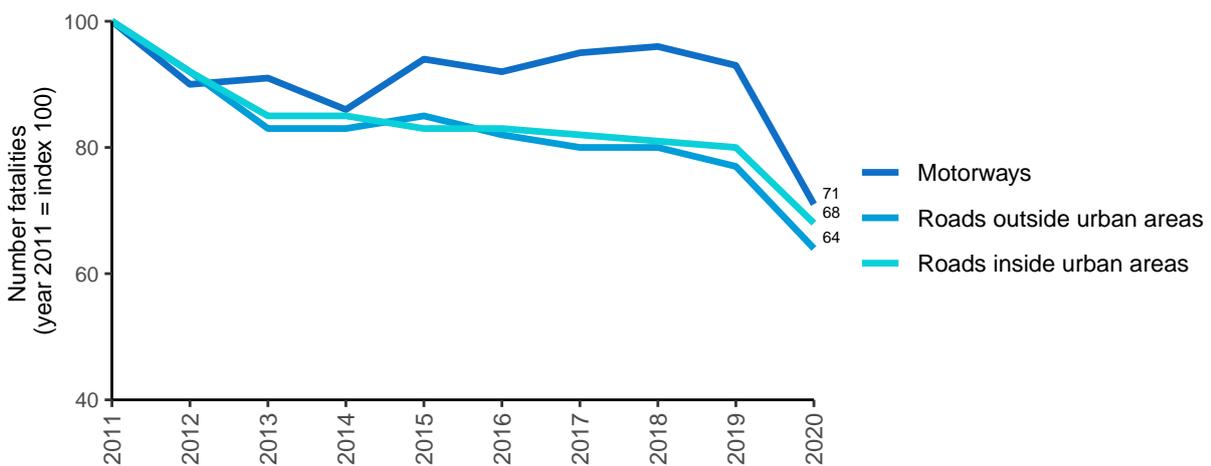


Notes:  
 -Countries that are not included in the Figure are France, the Netherlands, Ireland, Italy and Estonia due to problems of comparability, missing data or a break in the time series  
 -Germany accounts for a disproportionately high share of 40% of all serious injuries

### 3.5 Comparison of roads inside urban areas with other road types

The number of fatalities on roads outside urban areas has decreased the most (-35%) out of all road types, followed by roads inside urban areas (-32%). The number of fatalities on motorways has decreased the least in the last 10 years (-28%).

**Figure 6.** Trend of fatalities on motorways, roads outside urban areas and roads inside urban areas in the EU27 (2011-2020). Source: CARE

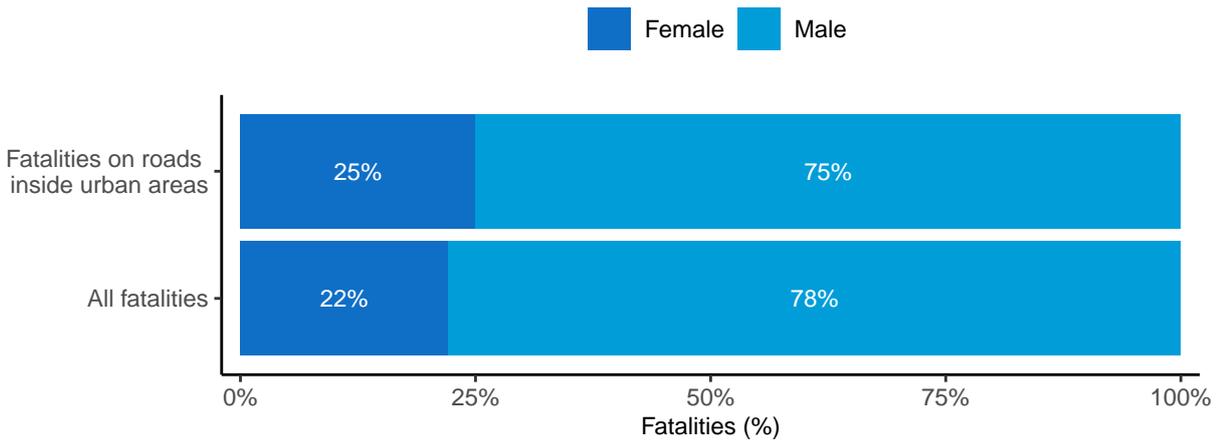


## 4 Road user

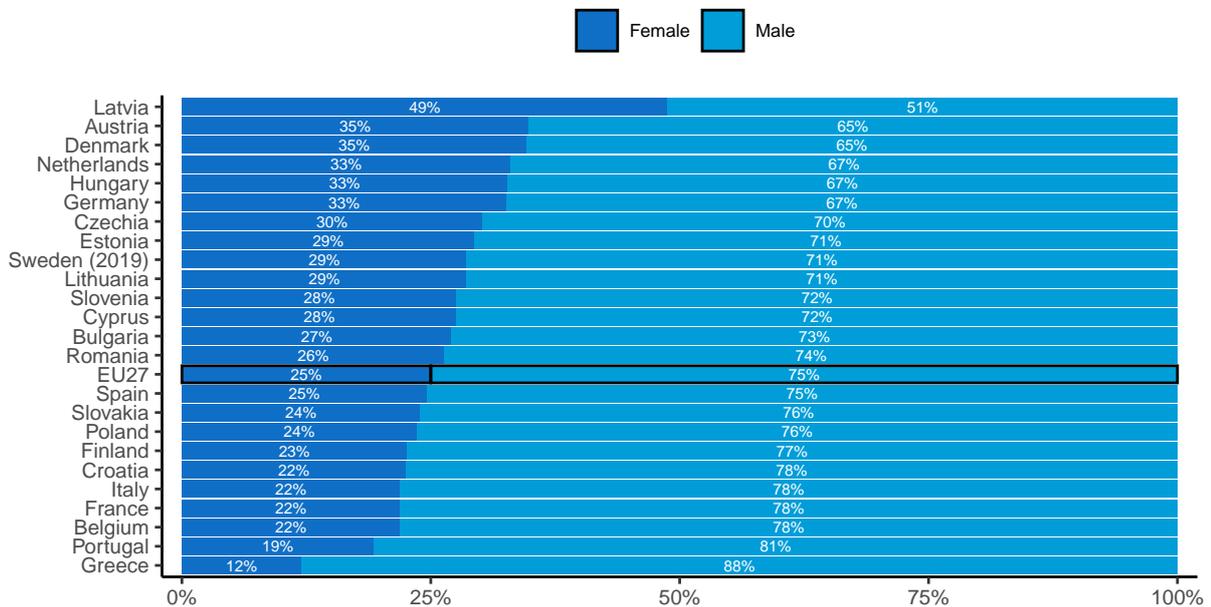
### 4.1 Gender

78% of all road fatalities in 2020 are men, compared to 75% of fatalities on roads inside urban areas. Large differences can be observed between EU Member States. The proportion of female fatalities on roads inside urban areas ranges between 12% and 49%.

**Figure 7.** Distribution of fatalities on roads inside urban areas and all fatalities by gender in the EU27 (2020). Source: CARE



**Figure 8.** Distribution of fatalities on roads inside urban areas by gender per country in the EU27 (2020). Source: CARE



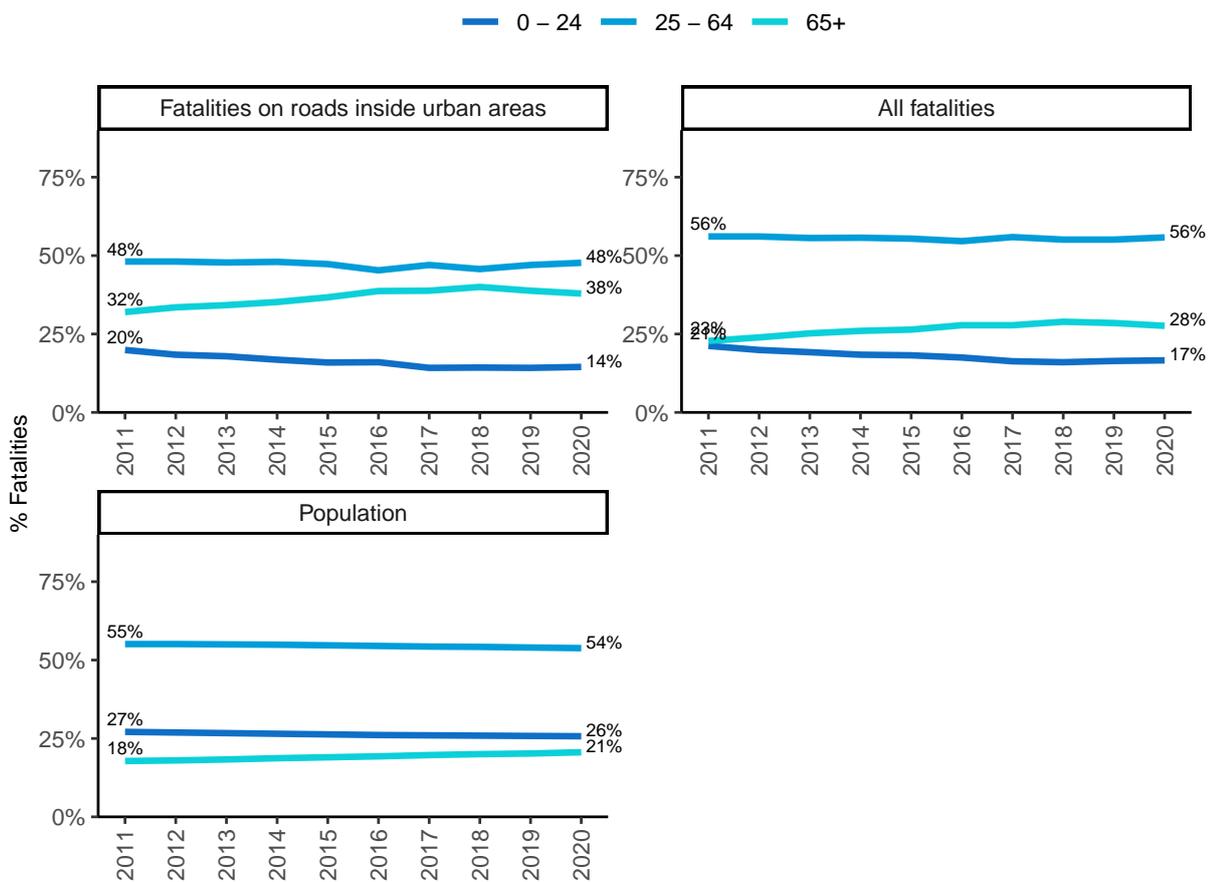
Notes:  
 - Countries that are not included in the Figure are Ireland and Malta because these countries have missing values in the last years  
 - Luxembourg is not included in the Figure because there are fewer than 10 fatalities

### 4.2 Age

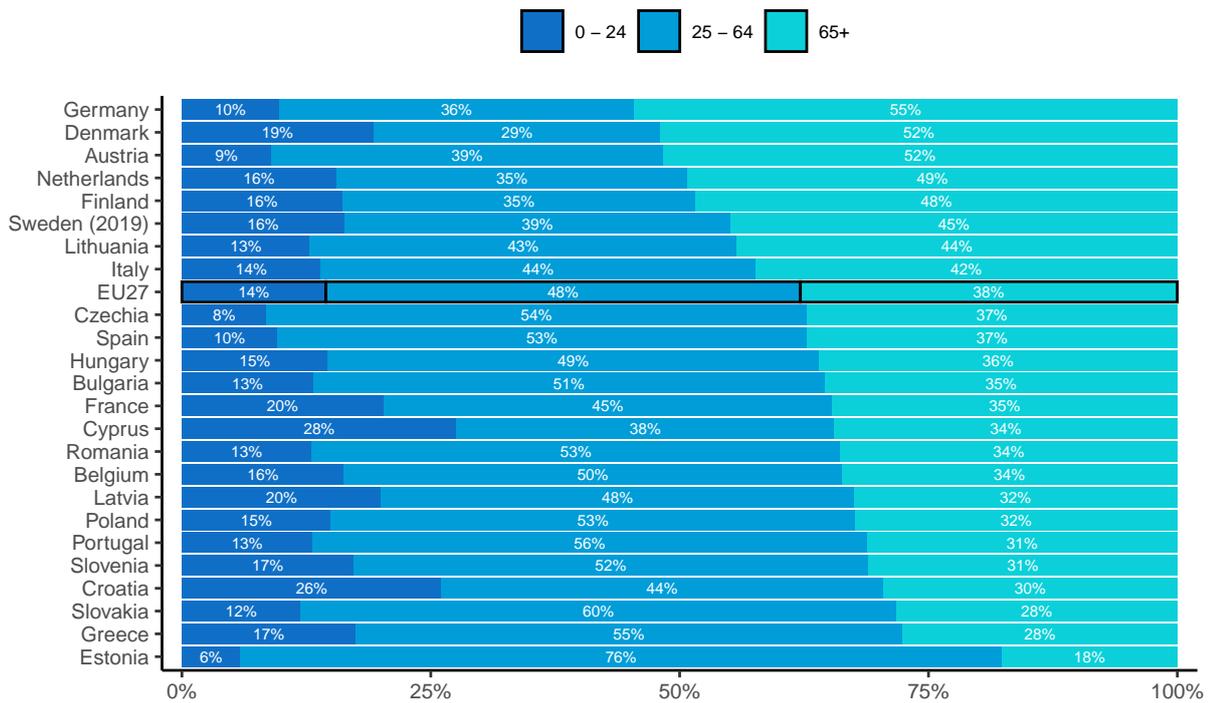
The age distribution of fatalities on roads inside urban areas differs from the age distribution of road fatalities generally. **The proportion of 65+ year old fatalities is higher on roads inside urban areas compared to all fatalities.** In 2020, 38% of fatalities on roads inside urban areas are 65 years or older, compared to 28% of all fatalities. The proportion of fatalities aged 25-64 is 48% on roads inside urban areas, compared to 56% of all fatalities.

The proportion of fatalities among those aged 65 or more on roads inside of urban areas ranges between 18% and 55% in the EU Member States.

**Figure 9.** Distribution of fatalities on roads inside urban areas and all fatalities by age group in the EU27 (2011-2020). Source: CARE & EUROSTAT



**Figure 10.** Distribution of fatalities on roads inside urban areas by age groups per country in the EU27 (2020). Source: CARE



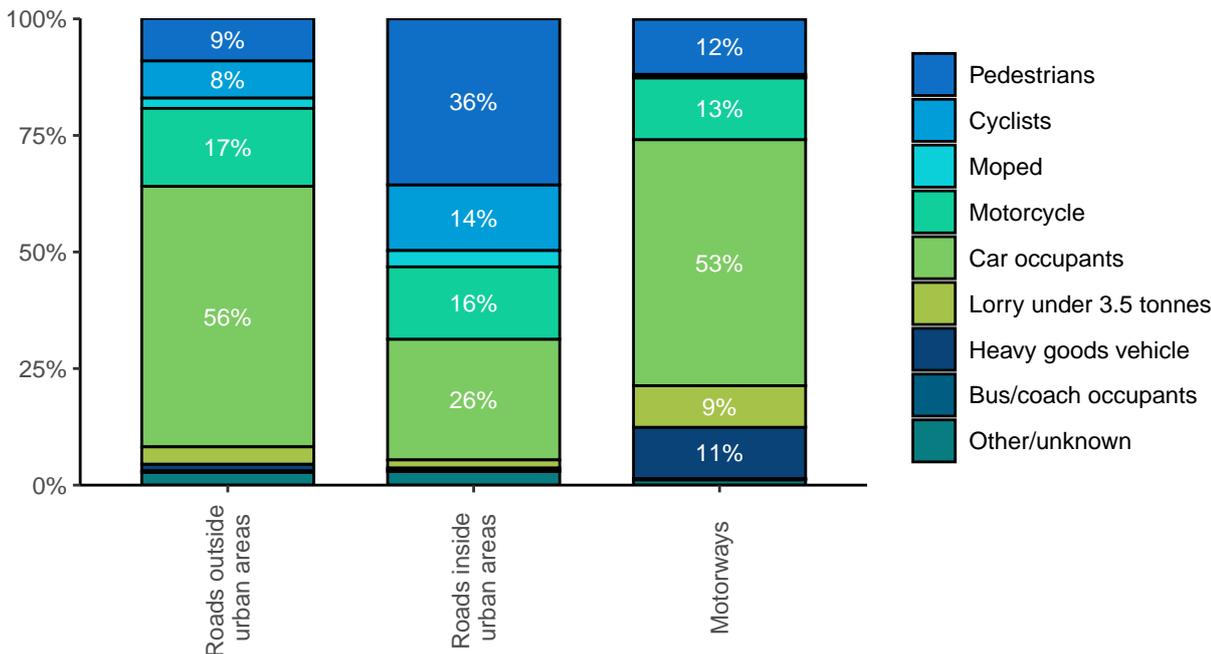
Notes:

- Countries that are not included in the Figure are Ireland and Malta because these countries have missing values in the last years
- Luxembourg is not included in the Figure because there are fewer than 10 fatalities

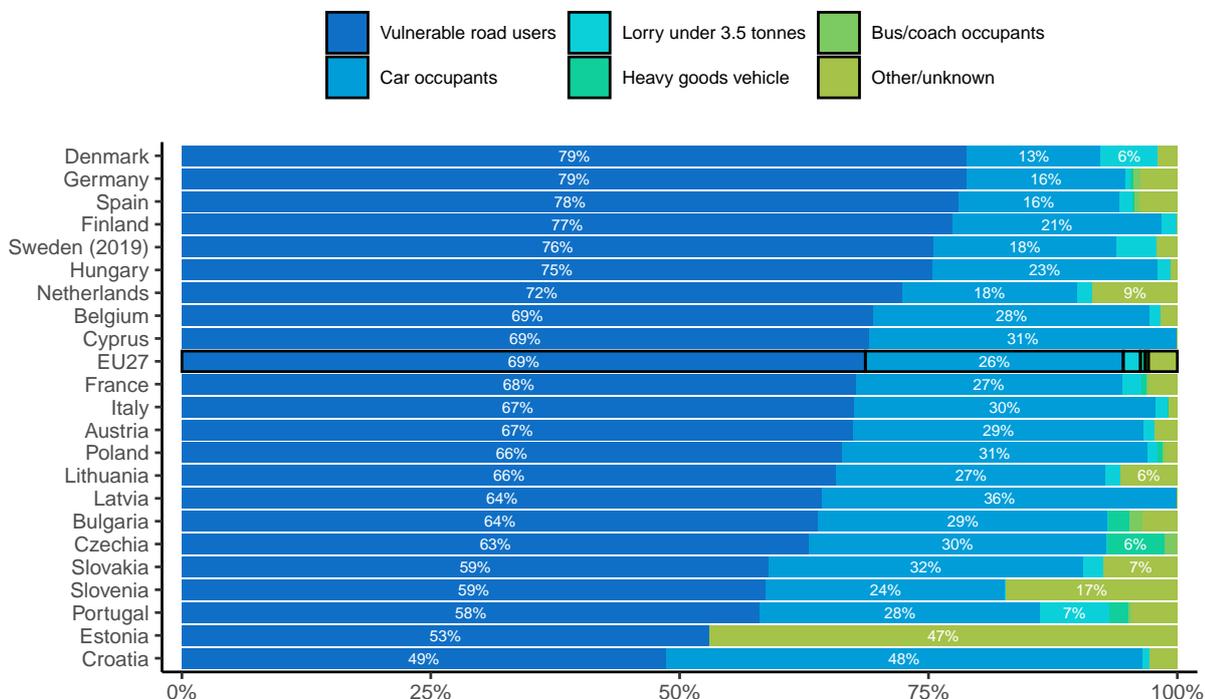
### 4.3 Transport modes

Vulnerable road users (pedestrians, cyclists and mopeds) make up more than half of all fatalities on roads inside urban areas. Pedestrians represent 36% of all fatalities on these roads. The proportion of car occupants among fatalities is lowest on roads inside urban areas, compared to roads outside urban areas and motorways.

**Figure 11.** Distribution of fatalities by transport mode and type of road in the EU27 (2020). Source: CARE



The proportion of vulnerable road users among road fatalities on roads inside urban areas ranges from 49% to 79%. The highest proportion is found in Northern EU-members, but also in some Western European countries. Countries with the lowest proportion of vulnerable road users among fatalities on roads inside urban areas are Eastern European countries.



Notes:  
 - Countries that are not included in the Figure are Ireland and Malta because these countries have missing values in the last years  
 - Luxembourg is not included in the Figure because there are fewer than 10 fatalities

## 5 Time

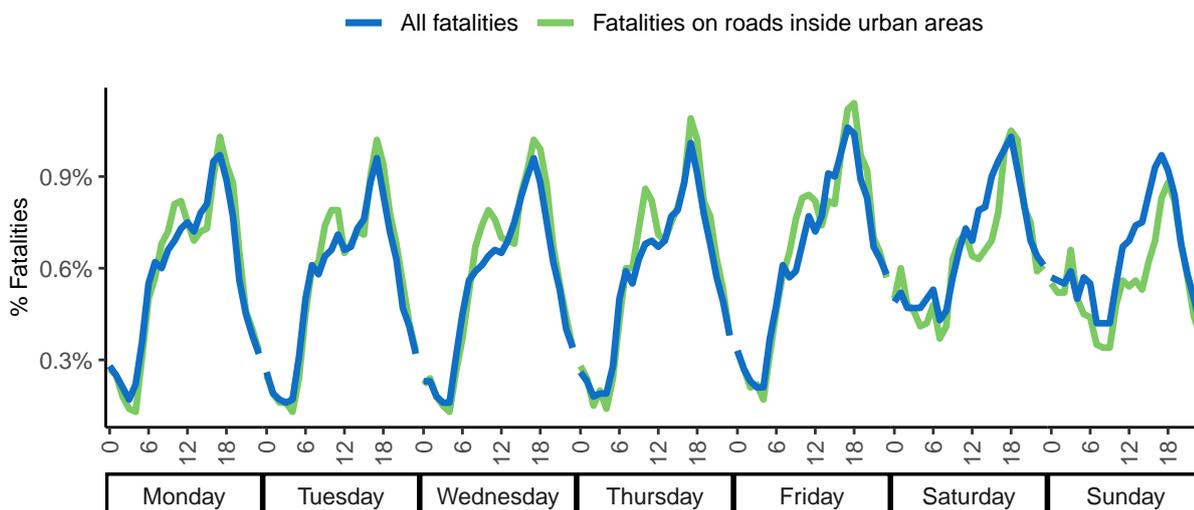
### 5.1 Period of the week

The distribution of fatalities on roads inside urban areas according to period of the week hardly differs from the same distribution of all fatalities. The share of fatalities on roads inside urban areas is proportionally higher during daytime in the working week and proportionally lower during daytime at the weekend.

### 5.2 Day of the week and hour

The Figure below on fatalities on roads inside urban areas confirms the above finding that **proportionately fewer fatalities occur on roads inside urban areas during daytime at the weekend**. On the other hand, fatalities on roads inside urban areas occur more often during the morning hours compared to all fatalities.

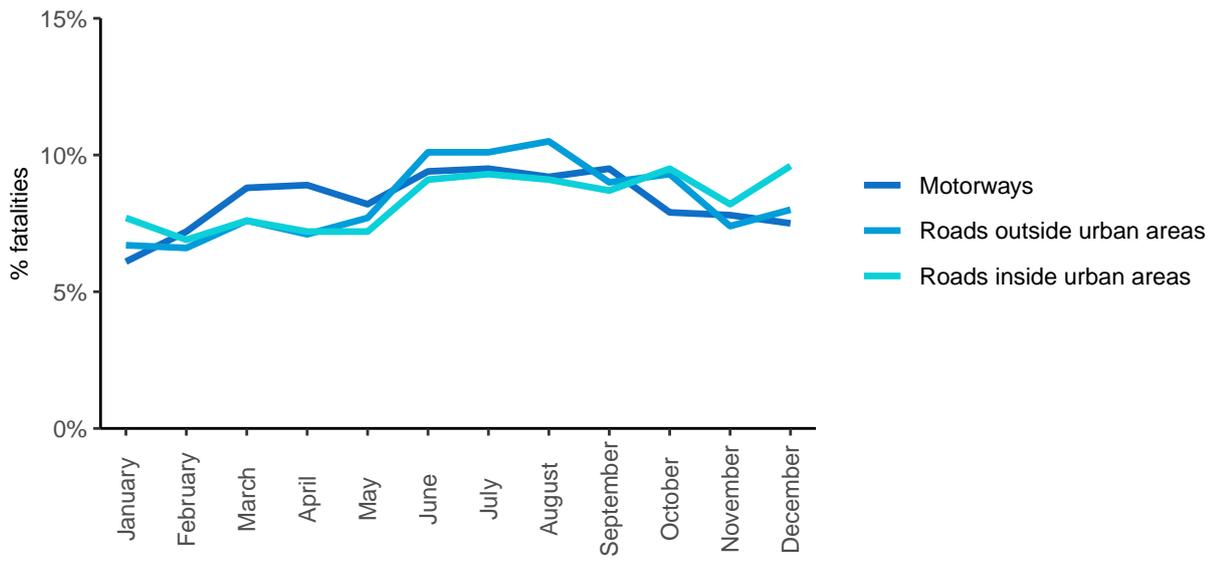
**Figure 12.** Distribution of fatalities on roads inside urban areas and all fatalities by day of the week and hour in the EU27 (2015-2020). Source: CARE



### 5.3 Month

The proportion of fatalities on roads inside urban areas is high in the period from June until October.

**Figure 13.** Monthly distribution of fatalities by type of road, in the EU27 (2019). Source: CARE



## 6 Location

### 6.1 Surface

Surface conditions were dry for 79% of fatalities on roads inside urban areas and wet for 19% of those fatalities. For only 1% of fatalities the surface conditions were snowy, frosty, or icy. The same findings apply to all fatalities.

### 6.2 Light conditions

50% of fatalities on roads inside urban areas occur during daylight, which is similar compared to all fatalities. The proportion of fatalities on roads inside urban areas during darkness doesn't differ from the proportion of all fatalities during darkness.

## 7 Notes

### 7.1 Definitions

The definitions below are taken from the CADAS Glossary and the UNECE Glossary.

CADAS Glossary: [https://ec.europa.eu/transport/road\\_safety/system/files/2021-07/cadas\\_glossary\\_v\\_3\\_8.pdf](https://ec.europa.eu/transport/road_safety/system/files/2021-07/cadas_glossary_v_3_8.pdf)

UNECE/ITF/Eurostat Glossary: <https://www.unece.org/index.php?id=52120>

#### **Accident / crash**

Definition: injury road accident, concerns an incident on a public road involving at least one moving vehicle and at least one casualty (person injured or killed). Note: the definition of “injury” varies considerably among EU countries thus affecting the reliability of cross country comparisons.

#### **Fatalities**

Definition: total number of persons fatally injured; correction factors applied when needed. Death within 30 days of the road crash, confirmed suicide and natural death are not included.

#### **Victims**

Total of fatalities, seriously injured and slightly injured and injured.

#### **Road inside urban areas**

Public road inside urban boundary signs.

#### **Working week – daytime**

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

#### **Working week – night**

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**

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.

### 7.2 Data source

The main data source for this report is CARE (Community database on Accidents on the Roads in Europe). The database contains data obtained from national data sources, not only EU members but also from the UK (up to 2018) and the 4 EFTA countries (Switzerland, Norway, Iceland, and Liechtenstein). The data in the report were extracted on 6 September 2021. As the database is not complete for all countries and all years, additional data were provided by the European Commission in order to be able to calculate the general total for fatalities for the EU27.

### 7.3 Small cells

Absolute numbers of fatalities can be very small for small countries, which can strongly influence trend indicators and other derived indicators such as mortality. Care should be taken when interpreting these numbers. When commenting on the Figures, countries with small numbers were omitted.

### 7.4 Missing data

Some countries did not provide data for all years and/or all variables to the CARE database. When data are missing for specific combinations of years and countries, imputation is used to fill in the empty cells. Imputation results for individual countries are never published in the Facts and Figures reports, but they are aggregated to generate an imputed number at EU27 level. The following imputation method for individual countries is used:

- Values missing at the end of a time series are given the last known value in the series.
- Values missing at the beginning of a time series are given the first known value in the series.
- If values are missing in the middle of a time series, linear extrapolation is used.

