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Austria recorded 416 road fatalities in 2019, a slight increase from 2018. The mortality rate is 4.7 deaths per 100 000 inhabitants. The Road Safety Programme 2011-2020 aims at "making Austria one of the five safest countries in Europe". It is based on the Safe System approach and has an increased focus on reducing the number of serious injuries. The main targets are to reduce the number of road deaths by 50% and the number of people seriously injured by 40% by 2020 compared to 2008-2010 level. A new Road Safety Strategy for the decade 2021-2030 is currently being prepared and is expected to be published in 2021. A new package of measures will be implemented in 2021, with a strong focus on combating speeding.

Impact of Covid-19

In response to the Covid-19 pandemic, Austria introduced lockdown measures on 16 March 2020, which affected the movement of people and goods on the road and in turn the exposure to road crashes.

Traffic volume decreased by up to 50% in April 2020, while the number of road deaths decreased by 15% and by 48% in May 2020, compared with the average for 2017-19. According to preliminary data, Austrian motorways reported 11% lower passenger car volumes for July and August 2020, compared to the previous year.

Table 1. Road fatalities by month

	Average 2017-2019	2020	% change
January	22	17	-22.7
February	24	27	12.5
March	25	25	0
April	33	28	-15.2
May	42	22	-47.6
June	43	33	-23.3

Trends

Austria registered an overall **increase in the number of road deaths in 2019**. According to the latest available data, 416 persons lost their lives in traffic crashes in Austria in 2019. This represents a 1.7% increase on 2018. In 2018, 409 road deaths were reported, a 1.2% decline on 2017.

The **long-term trend for road deaths** in Austria has been highly encouraging. Between 2000 and 2019, the number of annual road fatalities more than halved – falling by 57%. The greatest reduction was achieved in the 2000-2013 period. Since 2013, the reduction in the number of road deaths has slowed.

The number of **traffic deaths per 100 000 inhabitants** in Austria fell by 62% between 2000 and 2019. In 2019, 4.7 traffic deaths per 100 000 inhabitants were recorded, compared to 12.2 in 2000. By way of comparison, the average in the European Union was 5.1 deaths per 100 000 inhabitants in 2019.

Measured as **traffic deaths per billion vehicle-kilometres (vkm)** driven, the road safety performance of Austria showed a satisfactory long-term trend as well. In 2018, this metric stood at 4.9, 68% lower than in 2000.

Austria recorded 0.6 **road fatalities per 10 000 registered vehicles** in 2019. This represents a decrease of 66% compared to the year 2000, when the rate of deaths to registered vehicles stood at 1.8.

Country Profile

Population in 2019: 8.8 million

GDP per capita in 2019: USD 50 381

Cost of road crashes: 3.3% of GDP (2016)

Road network: 130 389 kilometres (urban roads 72%; rural roads 26%; motorways 2%)

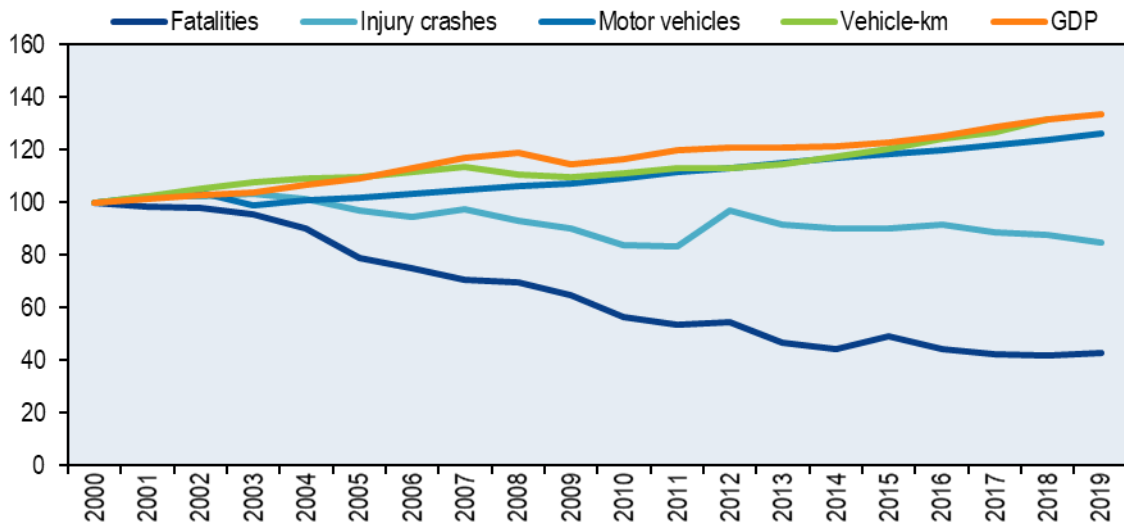
Registered motor vehicles in 2019: 6.9 million (cars 72%; goods vehicles 7%; motorcycles 8%)

Volume of traffic: +31.5% between 2000 and 2018

Speed limits: 50 km/h on urban roads; 100 km/h on rural roads; 130 km/h on motorways

Limits on blood alcohol content (BAC): 0.5 g/l for general drivers; 0.1 g/l for moped riders under 20, professional drivers and novice drivers

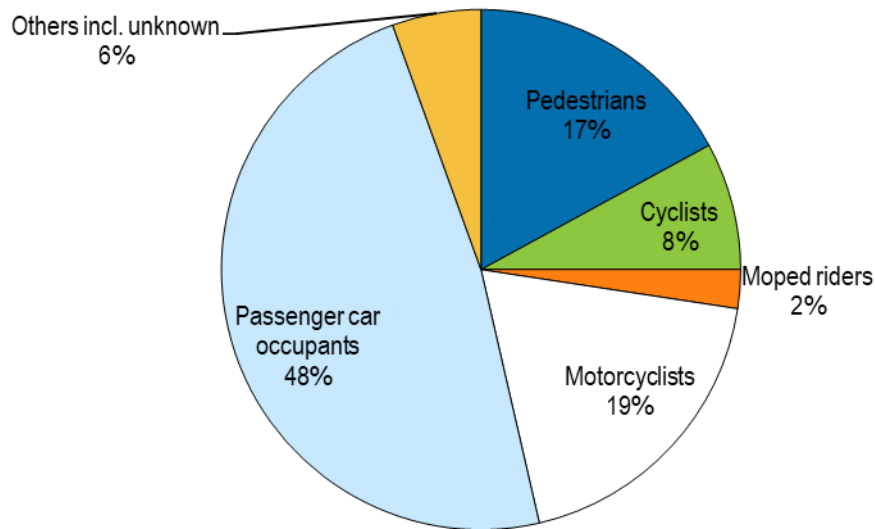
Figure 1. Road safety, stock of vehicles, traffic and GDP trends
Index 2000 = 100



Data for **fatalities by road user groups** shows that passenger car occupants continue to be the group the most affected by road crashes. In 2019, passenger car occupants accounted for the largest share of road deaths, with 48% of the total. They were followed by motorcyclists (19%), pedestrians (17%) and cyclists (8%).

The largest increase in fatalities in 2019 was registered among pedestrians, increasing 51.1% year-on-year from 47 pedestrians killed in 2018 to 71 in 2019. The number of car occupants killed increased by 10%. Compared to 2018, 22.5% less motorcyclists were killed and 19.5% less cyclists.

The long-term trend shows that traffic in Austria has become safer for all road user groups. The strongest declines in the period 2000-2019 were registered among moped riders (-77%), passenger car occupants (-64%) and pedestrians (-50%). Fatalities for motorcyclists decreased 30% and 47% for cyclists.

Figure 2. Road fatalities by road user group in percentage of total, 2019

Road deaths by age group in 2019 present some changes compared to 2018. The road deaths increased from three to 16 among the 0-14 age group and from 10 to 13 among those 15-17 years old. The number of fatalities increased by 7.8% from 77 to 83 for the elderly above 75 between 2018 and 2019.

Looking at the longer-term trend, since 2000 the number of road deaths decreased for all age groups. The largest reduction in fatalities over this period occurred in the 18-20 age group, decreasing 84% over the period 2000-2019.

Despite recent improvements, young people continue to be at high risk on Austrian roads, with a mortality rate above the average. People aged 18-20 had mortality rates of 6.1 per 100 000 inhabitants, with those 21-24 at a rate of 6.5 (the average mortality rate for the overall population is of 4.7).

Elderly people above 75 now have the highest mortality rate, with 10.1 deaths per 100 000 persons.

Figure 3. Road fatality rates by age group, 2010-2019
Deaths per 100 000 population in a given age group

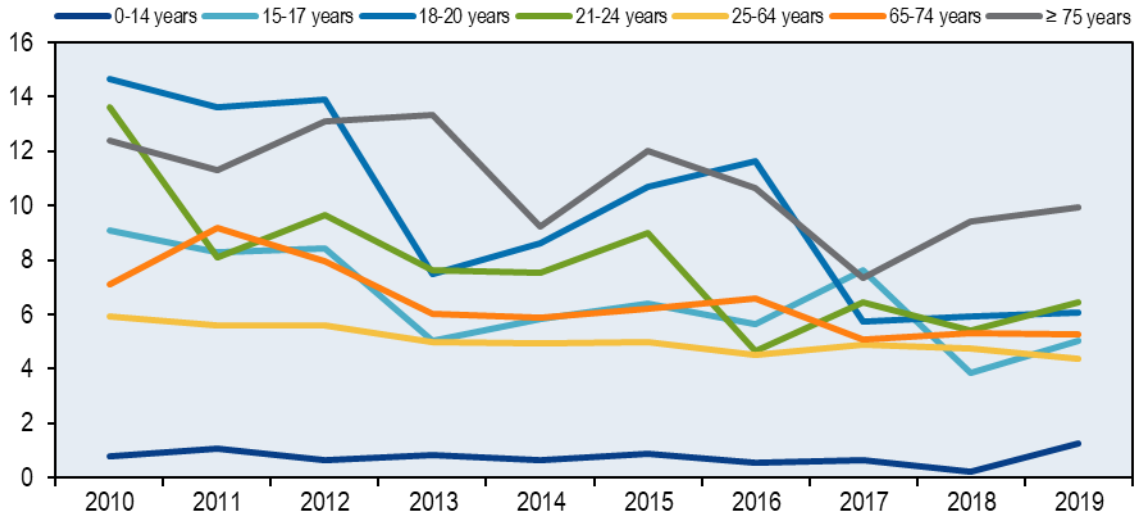
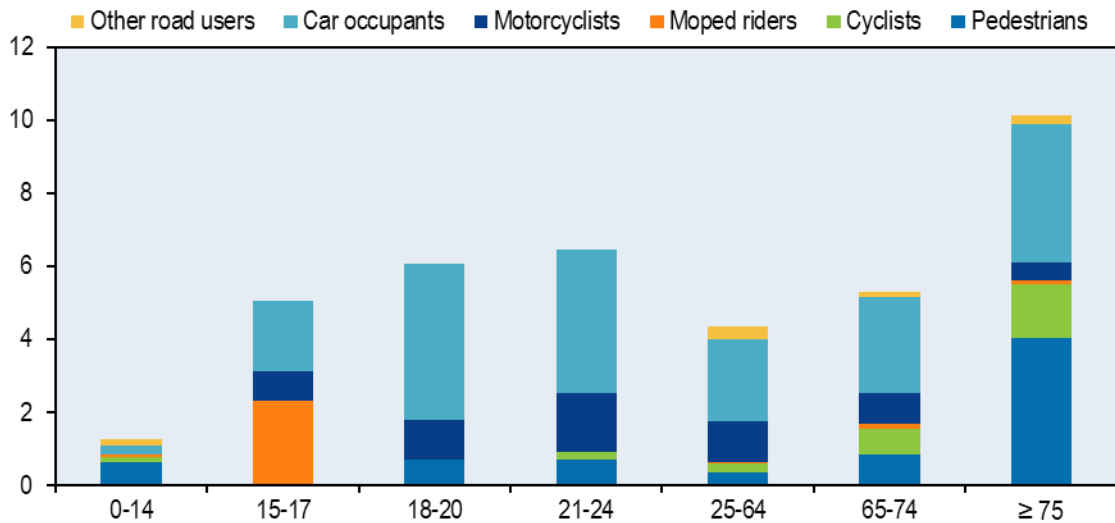


Figure 4. Road fatality rate by age and road user group, 2019
Fatalities per 100 000 population



Analysis of **fatalities by road type** shows the rural network is the deadliest. In 2019, 66% of deaths occurred on rural roads, 25% on urban roads and 9% on motorways. This repartition has remained relatively stable in recent years.

When compared to 2018 the number of road deaths in 2019 increased by 6.0% on motorways, 2.0% on the urban network and 1.1% on rural roads.

Since 2000, fatalities have decreased by 52.0% in urban areas, 54.0% on rural roads and by 76.5% on motorways. More recently, between 2010 and 2019 the number of road

deaths decreased by 17% on rural roads, 26% on urban roads and 54% on motorways (Figure 6), compared an overall reduction of nearly 25%.

Figure 5. Road fatalities by road type

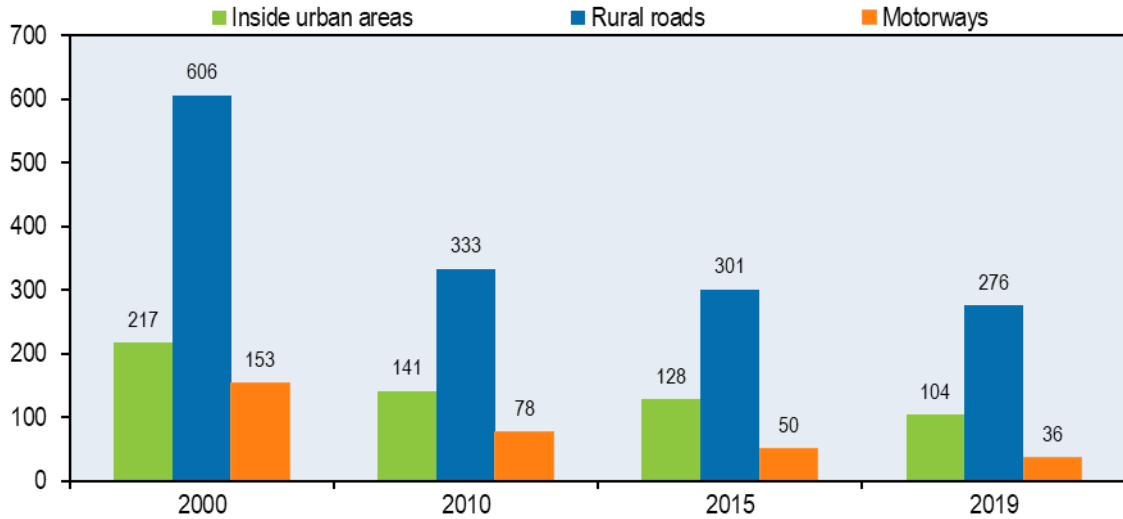
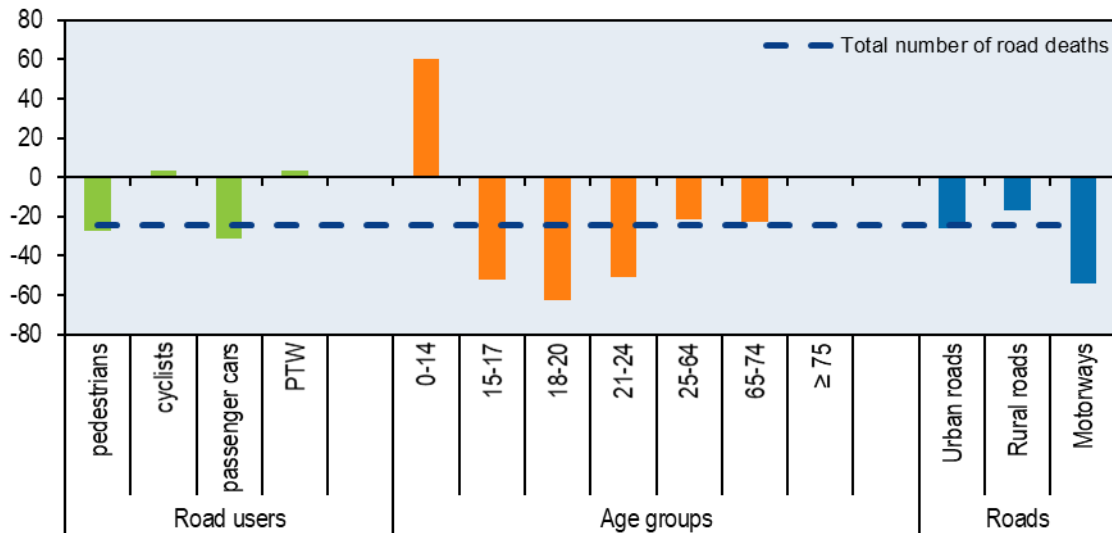


Figure 6. Evolution of road deaths by user category, age group and road type, 2010-2019



Fatality data are essential to understanding road safety issues but hardly sufficient. Information on **serious injuries from crashes** is also critically important. In 2014 and 2015, the Austrian Road Safety Board (KFV) carried out a feasibility study based on an assessment of the Maximum Abbreviated Injury Scale of three or more (MAIS3+) injuries on behalf of the Austrian Transport Ministry (BMK). Based on hospital data alone the number of MAIS3+ injuries was estimated at 1 410 in 2014, 1 309 in 2015 and 1 389 in 2016, resulting in ratios between MAIS3+ injuries and fatalities of 3.3 for 2014, 2.7 for

2015 and 3.2 for 2016. The accuracy of the estimation procedure may be substantially influenced by data quality and the accuracy of the hospital discharge register.

Economic costs of road crashes

Traffic crashes represent a very significant annual cost for Austria – estimated at around EUR 9.7 billion in 2016 (3.28% of GDP). Despite the rising average cost of each accident, the total cost of road crashes decreased from 2011 to 2016, according to research funded by the Austrian Road Safety Fund. The effect of fewer accidents on the road has outweighed the increasing cost of those crashes.

Table 2. Costs of road crashes, 2011-2016

	2011		2016	
	Unit cost (EUR)	Total (billions of EUR)	Unit cost (EUR)	Total (billions of EUR)
Fatalities	3 016 194	1.58	3 316 309	1.43
Severe injuries	381 480	4.01	429 517	3.25
Slight injuries	26 894	0.93	30 575	1.25
Property damage costs	5 245	3.58	5 481	3.77
Total		10.09		9.70
Total as % of GDP		3.31% of GDP		3.28% of GDP

Source: Sedblacek et al., 2017.

Behaviour

The behaviour of road users is an important determinant of a country's road safety performance. Speed is one of the main causes of crashes in Austria. In 2019, 14% of all injury crashes and 25% of all road fatalities were caused by inappropriate speed.

Due to restrictions in manpower, increases in speed surveillance by traffic police cannot be expected in the future, but automatic speed enforcement including section controls will be further developed.

In 2016 and 2017, the Austrian Ministry of Transport launched a nation-wide campaign on adequate speed choice on rural roads. The campaign was designed and evaluated in line with the recommendations of the EU project CAST (Campaigns and Awareness-Raising Strategies in Traffic Safety). The evaluation, carried out by KfV, revealed the campaigns had a positive impact on the target group regarding both future intentions with respect to driving speed and assessment of the dangers of inappropriate speed. The table below summarises the main speed limits in Austria.

Table 3. Passenger car speed limits by road type, 2020

	General speed limit
Urban roads	50 km/h
Rural roads	100 km/h
Motorways	130 km/h

Driving under the influence of alcohol is another major cause of road crashes in Austria, as in most IRTAD countries. In 2019, 7.1% of all crashes were alcohol related and killed 32 people.

Table 4. Alcohol-related crashes by degree of injury, 2019

Fatalities	32
Seriously Injured Persons	627
Injured Persons	3 221
Crashes	2 536

Austria uses the definition of drink-driving crashes recommended by the EU project SafetyNet: any crash in which any active participant had a BAC above the legal limit. The maximum authorised BAC is of 0.5 g/l for general drivers and 0.1 g/l for moped riders under 20, professional drivers and novice drivers

Since 2002, every active participant involved in an injury crash is tested for alcohol. However, it is not permitted in Austria to test a dead or an unconscious person (unless the prosecutor requires it). Therefore, the number of unreported cases is believed to be substantial.

Austrian regulations provide no specific thresholds for drug concentrations. It is forbidden to drive or ride a motor vehicle while under the **influence of drugs**. Little is currently known about the prevalence of drugs as a causal factor in accidents. Alcohol, drugs or prescription medicines were the presumed main cause of 6.3 % of all road crashes in 2019, up from 5.3% in 2018.

According to the road crash statistics compiled by Statistics Austria, **distraction** – lack of attention, lack of concentration and simply failing to notice other road users – was the presumed main cause of 24.0% of all road fatalities in Austria in 2019, down from 29.3% in 2018.

In Austria, it is not permitted to drive while using a hand-held mobile phone. However, the use of hands-free devices is tolerated. The use of hand-held mobile phones while cycling was prohibited in 2013. Since 2016, the prohibition of hand-held mobile phone use during driving also includes texting, dialling, social media, etc., with the exception of navigation. KfV has developed distraction workshops for Austrian schools, of which the first pilot projects were successfully deployed in all Austrian provinces in 2016.

Fatigue was the presumed main cause of 2.6% of all road fatalities in Austria in 2019. However, driver fatigue and the corresponding drop in attention and concentration levels is a vastly underestimated cause of crashes on Austria's roads – and its motorways in particular. The number of unreported/undetected cases is estimated to be far higher.

Seat belt wearing has been compulsory in Austria since 1984 in front seats and from 1990 for rear seats. The use of dedicated child restraint devices has been mandatory in Austria since 1994 for children under 14 years of age or less than 150 cm tall. Wearing a seat belt is an important road safety measure and contributes significantly to reducing injury severity in the event of an accident. The risk of being killed in a road crash is almost nine times higher for car occupants who are not wearing seat belts than it is for those who are.

The Austrian Road Safety Board observes and records the seat belt wearing rate in Austria each year. In 2019, 97% of drivers, 98% of front seat passengers and 96% of rear seat passengers wore their seat belts. From a gender perspective, more women (98%) than men (96%) wore seat belts. The seat belt wearing rate for children up to the age of 12 years was 98 % in 2018; for all other age groups the rate was 97%.

Table 5. Seat belt and helmet wearing rates
Percentages

	1990	2000	2010	2019
Front seats				
General (driver and passenger)	..	76	84	..
Driver	..	74	84	97
Passenger	..	79	81	98
Urban roads (driver)	63	70	82	96
Rural roads (driver)	74	75	85	98
Motorways (driver)	75	78	86	99
Rear seats				
General	..	60	79	96
Children (use of child restraint)	..	71	92	..
Helmet				
Mopeds	..	..	..	100
Motorcycles	..	..	..	100

For motorcyclists, **helmet wearing** is the most effective passive safety habit. In Austria, helmets have been compulsory for users of all motorised-two wheelers since 1979. The helmet wearing rate of riders of motorised two-wheelers is not surveyed regularly, but it is believed to be almost 100%.

Since June 2011, bicycle helmets have been compulsory for children up to 12 years of age. According to police assessment, in 2018 58% of injured cyclists and 66% of killed cyclists (all ages) did not wear a helmet.

Road safety management and strategies

The substantial decline in road mortality since 1990 coincides with the implementation of the **first two integrated road safety programmes** in Austria. These programmes introduced a variety of measures, including: second phase education for novice drivers after obtaining a driving licence; automatic section control of average speeds along stretches of motorway and rural roads; awareness campaigns on seat belt and child restraint use, alcohol, child safety and choice of adequate speed on rural roads; large-scale roadside testing for alcohol using screening devices and the introduction of a penalty point system.

Responsibility for the organisation of road safety in Austria primary lies with the Federal Ministry for Transport, Innovation and Technology (BMK). BMK co-operates with the Federal Ministry of the Interior and other government ministries, regional and local authorities, interest groups, chambers of commerce and industry, trade and labour associations, and road safety organisations through the Road Safety Programme.

The **Road Safety Advisory Council**, established at BMK, serves as the institutional platform for partners in the Road Safety Programme. It was established in 2006 as the forum for decision makers in matters relating to road safety and, in particular, for the preparation, ongoing evaluation and development of road safety programmes for all modes of transport. The Austrian Road Safety Fund, also established at BMK, was set up with the aim of promoting and furthering road safety. The Road Safety Fund is financed with revenues from personalised vehicle number plates. It plays a key role in funding road safety research and activities relating to the Road Safety Programme. Funding priorities are aligned to the programme's targets.

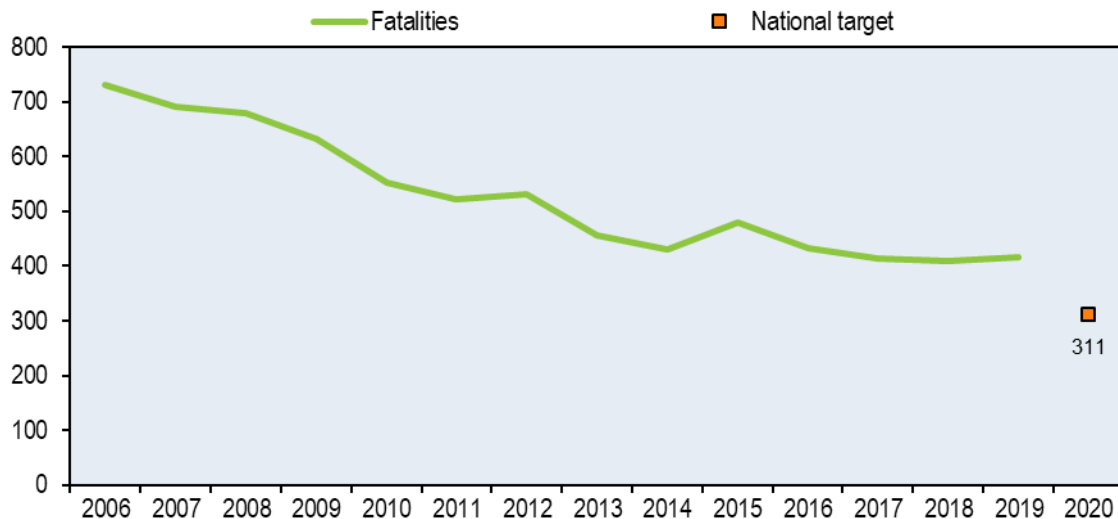
Despite significant progress in the last decade, Austrian road safety figures are still on average compared to the European Union as whole and below average for the EU15 countries. The Road Safety Programme 2011-2020 aims at "making Austria one of the five safest countries in Europe". It is based on the safe system approach and has an increased focus on reducing the number of serious injuries on Austrian roads. The programme features 17 main fields of action.

Austria set a number of measurable targets as part of its road safety strategy. These include the following:

- a 50% reduction in fatalities by 2020, based on the average for the years 2008-2010 (interim target: -25% by 2015)
- a 40% reduction in serious injuries by 2020, based on the average for the years 2008-2010 (interim target: -20% by 2015)
- a 20% reduction in injury crashes by 2020, based on the average for the years 2008-2010 (interim target: -10% by 2015).

To ensure the Road Safety Programme is successfully implemented, the Road Safety Advisory Council provides support in all 17 fields of action throughout the duration of the programme. It gathers and analyses available annual crash statistics, behaviour parameters and safety indicators. Based on this information, measures are adjusted as required to accommodate changes in road behaviour and crashes.

Figure 7. Trends in road fatalities towards national target



A new **Road Safety Strategy** for the decade **2021-2030** is currently being prepared and is expected to be published in 2021.

Measures

Several measures to improve road safety management have recently been put in place.

Human behaviour: Authorities now have the possibility to regulate a driving ban for trucks without a turn-off assistant in entire or special local areas.

The illegal use of the emergency corridor on motorways leads to points in the demerit point system.

Austria has introduced stricter requirements for taxi and Uber drivers. The latter now need to have the same licence as taxi drivers, which is only issued after completing a training. The licence is only valid for five years.

The introduction of digital driving licences is planned for 2021, and vehicle registration certificates could follow soon. Licence holders will be able to have their driving licence on their mobile phone.

The Ministry of Transport has announced a large package of measures against excessive speeding. The package is expected for 2021. According to the ministry's plans, the measures will include higher fines, lower thresholds for licence withdrawal, as well as a

longer duration of the withdrawal period, inclusion of speeding in the demerit point system, vehicle confiscation in severe cases and measures against road running.

Definition, methodology and data collection

A road fatality is defined as any person dying within 30 days of the crash.

An injury crash is any crash resulting in at least one injured or killed person.

Injured persons are subdivided into seriously injured and slightly injured. The seriously injured are any person suffering an injury resulting in an inability to work or health problems for more than 24 days. Any other injured persons are considered slightly injured.

Since 2015 the number of people seriously injured with a Maximum Abbreviated Injury Scale of three or more (MAIS3+) injuries has been reported.

Crash data are collected by the police. The crash data acquisition process was completely transformed in January 2012 from paper forms to integrated data input, including geographic information system (GIS) support. This has significantly reduced underreporting rates, especially for less severe road crashes. Due to this change, data for injuries and crashes since 2012 cannot be directly compared with previous figures. This does not apply to the number of fatalities.

Injury severity is assessed by the police at the crash scene, with only occasional feedback from hospitals. It is not possible to link police and hospital data directly on the basis of the present data architecture.

As required by the European Commission, the number of serious injuries (MAIS3+) has been estimated since 2015 based on Classification of Diseases-10 (ICD-10) hospital data on road traffic victims.

Resources

Recent research

KFV (2020), "E-Scooters: Crashes, risk perception and behaviour", (in German with an executive summary in English), KFV – Sicher Leben No. 24., <https://www.kfv.at/download/24-e-scooter-im-strassenverkehr/?wpdmdl=8143&refresh=5fb6a2d849f041605804760>.

KFV (2020), "'Dooring' crashes of cyclists and engineering countermeasures", (in German with an executive summary in English), KFV – Sicher Leben No. 20., <https://www.kfv.at/download/20-dooring-unfaelle/?wpdmdl=7690&refresh=5fb6a2d84e67e1605804760>.

Technical University Graz (2019), *Improved Perception of Motorcycles*, (in German with an abstract in English),

https://www.bmk.gv.at/dam/jcr:5111b52f-ab9b-488a-8c61-c34ce6b6489d/70_IMPMOD_ua.pdf.

KFV (2018), *ModMop - Modernising Moped Education*, (in German with an abstract in English), https://www.bmk.gv.at/dam/jcr:39fb89b6-7a0f-472e-be8e-9dd017895001/68_modmop.pdf.

KFV (2017), *Effectiveness of road markings on motorcyclists' choice of trajectories*, (in German with an abstract in English), <https://www.kfv.at/download/9-wirksamkeit-von-bodenmarkierungen-zur-beeinflussung-der-wahl-von-kurvenfahrlinien-durch-motorradfahrende/>.

KFV (2017), *A new Road Safety Inspection (RSI) method for motorcycle routes*, (in German with an abstract in English), <https://www.kfv.at/download/8-entwicklung-einer-methode-zur-durchfuehrung-von-motorrad-rsi/>.

Websites

Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK): <https://www.bmk.gv.at/>.

Austrian Road Safety Board (KFV): <https://www.kfv.at/>.

Statistik Austria:

http://www.statistik.at/web_en/statistics/EnergyEnvironmentInnovationMobility/transport/road/road_traffic_accidents/index.html.

Austrian Road Safety Programme 2011-2020:

https://www.bmk.gv.at/dam/jcr:7fab9a6e-348b-4a2c-87cc-f1db78c63d2b/rsp2020_2016.pdf.

References

Sedblacek, N. et al. (2017), *Unfallkostenrechnung Straße 2017*, https://www.bmk.gv.at/dam/jcr:4a5358dc-c894-477a-9adb-47d18f0674f7/65_unfallkosten.pdf.

Road safety and traffic data

	1990	2000	2010	2017	2018	2019	2019 % change over			
							2018	2010	2000	1990
Reported safety data										
Fatalities	1 558	976	552	414	409	416	1.7%	-24.6%	-57.4%	-73.3%
Injury crashes	46 338	42 126	35 348	37 402	36 846	35 736	-3.0%	1.1%	-15.2%	-22.9%
Deaths per 100,000 population	20.4	12.2	6.6	4.7	4.6	4.7	1.3%	-29.0%	-61.5%	-77.0%
Deaths per 10,000 registered vehicles	3.7	1.8	0.9	0.6	0.6	0.6	-0.1%	-34.6%	-66.2%	-83.8%
Deaths per billion vehicle kilometres	32.8	15.2	7.8	5.1	4.9	..	..	..	..	..
Fatalities by road user										
Pedestrians	260	141	98	74	47	71	51.1%	-27.6%	-49.6%	-72.7%
Cyclists	106	62	32	32	41	33	-19.5%	3.1%	-46.8%	-68.9%
Moped riders	88	44	18	13	8	10	25.0%	-44.4%	-77.3%	-88.6%
Motorcyclists	112	112	68	83	102	79	-22.5%	16.2%	-29.5%	-29.5%
Passenger car occupants	913	549	292	182	181	200	10.5%	-31.5%	-63.6%	-78.1%
Other road users	78	68	44	30	30	23	-23.3%	-47.7%	-66.2%	-70.5%
Fatalities by age group										
0-14 years	67	27	10	8	3	16	433.3%	60.0%	-40.7%	-76.1%
15-17 years	55	37	27	20	10	13	30.0%	-51.9%	-64.9%	-76.4%
18-20 years	205	105	45	17	17	17	0.0%	-62.2%	-83.8%	-91.7%
21-24 years	186	99	57	29	24	28	16.7%	-50.9%	-71.7%	-84.9%
25-64 years	764	518	273	239	234	215	-8.1%	-21.2%	-58.5%	-71.9%
65-74 years	..	86	57	42	44	44	0.0%	-22.8%	-48.8%	..
≥ 75 years	..	104	83	59	77	83	7.8%	0.0%	-20.2%	..
Fatalities by road type										
Urban roads	396	217	141	107	102	104	2.0%	-26.2%	-52.1%	-73.7%
Rural roads	1 000	606	333	251	273	276	1.1%	-17.1%	-54.5%	-72.4%
Motorways	161	153	78	56	34	36	5.9%	-53.8%	-76.5%	-77.6%
Traffic data										
Registered vehicles (thousands)	4 186	5 471	5 981	6 655	6 771	6 896	1.8%	15.3%	26.0%	64.7%
Vehicle kilometres (millions)	47 529.3	64 006.7	71 170.2	80 988.7	84 156.8	..	..	..	..	..
Registered vehicles per 1,000 population	547.6	683.7	716.2	758.5	767.5	778.4	1.4%	8.7%	13.9%	42.2%