International Transport Forum

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ROAD SAFETY ANNUAL REPORT 2018

FRANCE

OECD

FRANCE

France recorded 3 448 road fatalities in 2017, representing a slight decrease of 0.8% when compared to 2016. The mortality rate is 5.3 deaths per 100 000 population. In 2016, the number of road deaths stabilised (+0.5% when compared to 2015) after two consecutive years of increases (3.5% in 2014 and 2.3% in 2015). Developments since 2010 show a difficulty in reducing the number of fatalities among vulnerable users, except moped riders, with a significant increase in road deaths among motorists and cyclists since 2013. A number of new road safety measures targeted at dangerous behaviour have been adopted since 2016.

Note: Data presented in this report concern the French metropolitan area only.

Trends

France registered a slight **decrease in the number of road deaths in 2017** after three consecutive years of increase. In 2017, 3 448 people died on the roads of metropolitan France, 29 fewer people than in 2016. Road mortality is thus almost stable (-0.8%) compared to 2016. However, the number of injury crashes and the number of hospitalised people increased respectively by 1.9% and 2.0%. In 2016, 3 477 persons were killed on French mainland roads, representing 16 additional fatalities over 2015.

Country Profile

Population in 2017: 65.0 million

GDP per capita in 2016: USD 38 152

Cost of road crashes: 2.2% of GDP (2016)

Road network: 1 089 million kilometres (urban roads 15%; rural roads 84%; motorways 1%)

Registered motor vehicles in 2016: 43.0 million (cars 75%; goods vehicles 15%; motorised two-wheelers 10%)

Volume of traffic : +15.7% between 2000 and 2016

Speed limits: 50 km/h on urban roads; 90 km/h on rural single carriageways (80 km/h when two lanes only); 110 km/h on dual carriageways; 130 km/h on motorways

Limits on Blood Alcohol Content: 0.5 g/l for general drivers; 0.2 g/l for professional drivers and novice drivers

The **longer-term trend for road deaths** in France has been downward, although the improvement has slowed significantly in recent years. Between 1990 and 2017, the number of annual road fatalities fell by 69% with a 57% drop during the 2000-17 period. Over the more recent past, the trend in the decline of traffic fatalities has slowed with a reduction of 13.6% recorded for the 2010-17 period.

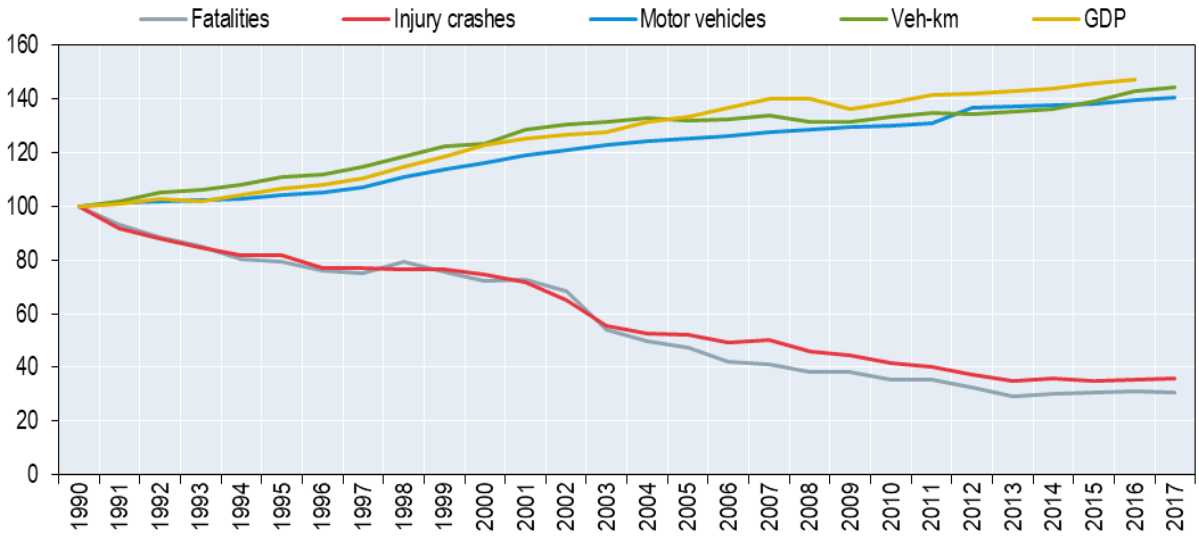
The number of **traffic deaths per 100 000 inhabitants** was divided by nearly four between 1990 and 2017. In 2017, 5.3 traffic deaths per 100 000 inhabitants were recorded, compared to 19.8 in 1990.

The fatality risk, measured as **traffic deaths per billion vehicle-kilometres** (vkm) driven, showed a positive longer-term trend. In 2016 this metric stood at 5.8, 78% lower

than in 1990, 62% lower than in 2000 and 19% lower than in 2010. The fatality risk has declined faster than the number of deaths, due to growth in traffic volume, which has increased by 16% since 2000.

France recorded 0.8 **road fatalities per 10 000 registered vehicles** in 2016. This represents a decrease of 78% compared to the year 1990, when the rate of deaths to registered vehicles stood at 3.6.

Figure 1. Road safety, vehicle stock, traffic and GDP trends
Index 1990 = 100



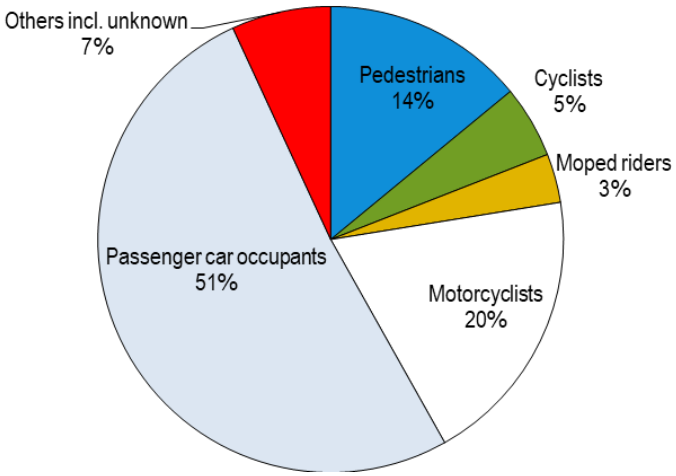
The picture for **fatalities by road user group** in 2016 is characterised by an increase among pedestrians and cyclists. The number of pedestrians killed rose by 19.4% in 2016 compared to 2015, and the number of cyclist fatalities by 8.7%. Fatalities among moped riders showed a clear decline in 2016 (–21.9%), a trend that benefits young people. Fatalities among motorcyclists have stabilised in recent years, masking a gain among young people counterweighed by an increase of fatalities among users aged 45 years old and over. In 2017, the number of pedestrians killed fell by 13.4%. It also decreased for moped riders (-3.3%), but it increased for all other road users (+9.1% for motorcyclists, +6.8% for cyclists and +1.4% for passenger car occupants).

Despite the growing share of fatalities among vulnerable road users, in 2017 car occupants still accounted for the largest share of road deaths with 51% of the total. They were followed by motorcyclists (18%) and pedestrians (16%). **Motorcyclists are still overrepresented in road fatalities.** While motorised two-wheelers account for less than 2% of the distance travelled, they represent 23% of the total fatalities and 42% of those seriously injured. The fatality risk per kilometre driven is 26 times higher for a motorcyclist than for a car occupant. However, some progress is being observed, in part due to a lower use of motorcycles during a period of economic downtown and a delay in accessing high-powered motorcycles for new motorcyclists. The implementation of speed cameras able to record the rear motorcycle plate has contributed to an annual average

reduction of 2.3% of motorcyclists killed between 2010 and 2016 (with strong annual fluctuations due to weather conditions).

The 13.6% reduction in road deaths between 2010 and 2017 did not benefit all categories of users in the same manner. Since 2010, the number of fatalities increased markedly for cyclists (+17.7%), it stagnated for pedestrians, while it decreased for all other road user groups, with the largest decline for moped riders (-53%) explained by the reduction in popularity of this transport mode among young people.

Figure 2. Road fatalities by road user group in percentage of total, 2017



Road deaths by age group in 2016 showed a decrease in the number of road deaths for young people aged 15-17 (-23.2%) and 18-20 (-7.4%), but an increase or stagnation for all other age groups. The number of fatalities among the 15-17 age group reached the historically low level of 96 fatalities in 2016. Children and young adults aged 24 and under now represent less than a quarter (23%) of road fatalities. This trend reveals the impact of recent specific measures targeted at young road users, such as the reduction of the maximum authorised blood alcohol content (BAC) to 0.2 g/l for novice drivers since July 2015 and the intermediate low power licence for new bikers under 24. In contrast, the share of older persons among road deaths has continued to increase. Persons aged 65 and over represented, in 2016, more than a quarter of road fatalities (25.5%). In 2017, an increase in the number of road deaths was reported for the 15-17 (+5.2%), the 25-64 (1.2%) and the 65-74 (+6.9%) age groups.

Since 2010, the number of road deaths decreased for all age groups, except for the over-65 group. While on average the number of fatalities dropped by 13.6% during the 2010-17 period, the number of people killed among the 65-74 year-old age group increased by 29.5% and by 5.6% among the people aged 75 and above. This trend is naturally associated with the demographic evolution in France, even though the risk tends to increase for people aged 75 and above (with a mortality rate of 9.5 deaths per 100 000 inhabitants in the same age group).

The repartition of road fatalities by travel mode is largely influenced by age, given the minimum age required to drive certain vehicles. Thus the 15-17 age group represents the largest share of fatalities among moped riders. Children under 14 and persons over 65 are particularly vulnerable as pedestrians and cyclists.

Despite recent improvements, young people continue to be the age group the most at risk in traffic. In 2017, the 18-20 and 21-24 age groups had a mortality rate of 11 deaths per 100 000 inhabitants of the same age group, i.e. more than twice the mortality of the average population.

Figure 3. Road fatality rates by age group
Deaths per 100 000 population in a given age group, 1990-2017

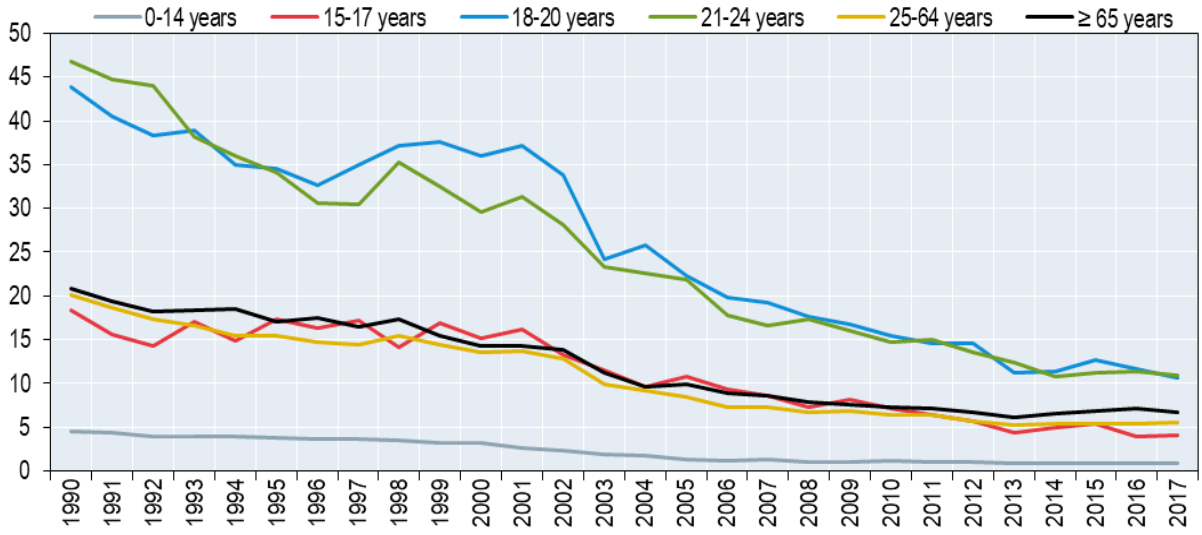
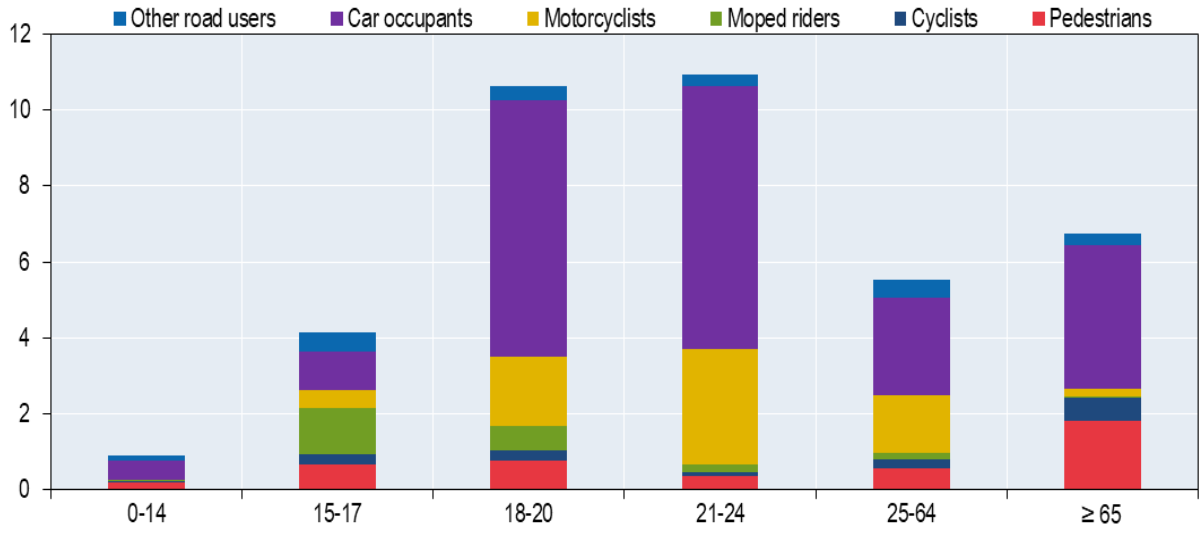


Figure 4. Road fatality rate by age and road user group
Fatalities per 100 000 population, 2017



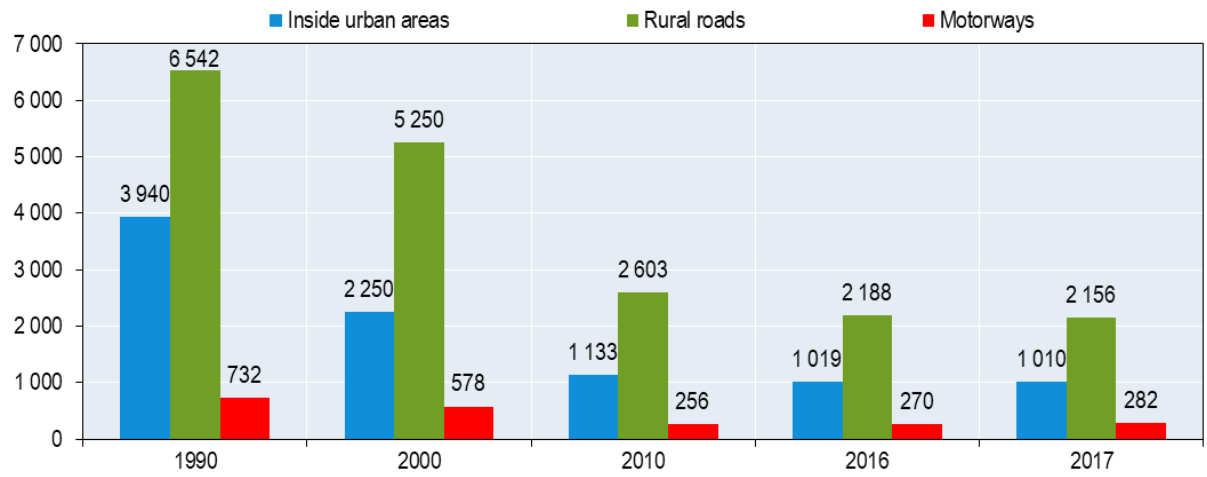
Analysis of **fatalities by road type** shows that the rural network continues to be the deadliest. In 2017, 63% of deaths occurred on rural roads, 29% on urban roads and 8% on motorways. This repartition has remained relatively stable in recent years.

Following a strong increase in 2015, the number of fatalities on motorways decreased in 2016 (–28 fatalities, or –9.4%) but increased again in 2017. There was no improvement on the rural roads in 2016 (+0.6%, representing 13 more fatalities) and a slight reduction (-1.5%) in 2017. The number of fatalities on urban roads increased by 3.1% in 2016, due to a strong growth in pedestrian fatalities (+19.4 %, representing 91 more fatalities than in 2015) and cyclist fatalities (+8.7%, 13 more fatalities than in 2015). In 2017, there were 9 fewer persons killed on urban roads

Since 2000, the reduction in the number of road deaths has benefited the whole network with the same order of magnitude (-55% on urban roads, -58% on rural roads and –53% on motorways).

In order to reduce further the number of casualties on the rural network, a new speed limit entered into force on 1 July 2018 on rural roads without a median separation (80 km/h instead of 90 km/h).

Figure 5. Road fatalities by road type



Fatality data are essential to understand road safety issues, but hardly sufficient. Information on **serious injuries from crashes** is also critically important. IFSTTAR estimates the number of people in road traffic crashes with an injury of a Maximum Abbreviated Injury Score of 3 or more. Based on these estimates, on average between 2012 and 2015, 41% of persons injured with an MAIS of three or above were motorised two-wheeler riders, 27% were car occupants, 15% cyclists and 15% pedestrians. This means that nearly 70% of those seriously injured are vulnerable road users.

Economic costs of road crashes

Road traffic crashes represent a significant cost for society, estimated at EUR 48.6 billion or 2.2% of GDP. Costs of road crashes take into account production losses, human cost for the relatives, medical costs and the loss of quality of life. This calculation takes into account estimates of non-reported crashes. IFSTTAR estimates that the number of injured people could be four times greater than the registered number, and the number of hospitalised nearly twice as great.

Table 1. Costs of road crashes, 2016

	Unit cost [EUR]	Total [EUR]
Fatalities	3 241 million	11.3 billion
Hospitalised persons	405 180 633	22.0 billion
Slight injuries	16 207	3.8 billion
Property damage costs of injury crashes	4 970	1.1 billion
Property damage costs of non-injury crashes		10.4 billion
Total		**48.6 billion**
Total as % of GDP		**2.2%**

Behaviour

The behaviour of road users is an important determinant of a country's road safety performance. **Inappropriate or excessive speed** is the leading cause of fatal crashes. In 2017, according to police reports, speed was the primary cause in 27% of fatal crashes.

Between 2000 and 2011, average speeds during daytime decreased by 10 km/h or more on all non-urban networks. However, speed measurements undertaken in recent years reveal an increase in speed. The 2016 speed measurement campaign confirms the increase in the average speed of passenger vehicles observed over the past few years on fast networks: +6 km/h since the beginning of the year on connecting motorways, and +3 to 4 km/h since 2013 on roads limited to 110 km/h. About 30% of drivers exceed the speed limit on these networks, 9% of which by over 10 km/h. On roads limited to 90 km/h and urban roads (limited to 50 km/h), speeds have been stable since 2009, with a downward trend in urban areas. In small agglomerations as well as in entry/exit of medium agglomerations, 44% of drivers drive over 50 km/h of which 11% are above 60 km/h.

The table below summarises the main speed limits in France.

Table 2. Passenger car speed limits by road type, 2018

	General speed limit	Comments
Urban roads	50 km/h	
Rural roads	90 km/h	80 km/h when two lanes only 80 km/h in wet weather or for novice drivers
Dual carriageways	110 km/h	100 km/h in wet weather or for novice drivers
Motorways	130 km/h	110 km/h in wet weather or for novice drivers

Driving under the influence of alcohol is another major cause of road crashes in France. In 2016, 819 persons were killed in an alcohol-related crash, a reduction of 5.4% compared to 2015. This represents 24% of all road fatalities where the BAC is known (an estimated 29% of all road fatalities). The share of alcohol-related fatalities has remained stable at around 30% since 2000. Between 2010 and 2016, the number of people killed in alcohol-related crashes decreased by 15%, which is lower than in non-alcohol related crashes (-12.9%).

Drink driving concerns all age groups, particularly the 18-24 and 25-34 year-olds.

The maximum authorised BAC is 0.5 g/l for all drivers (including cyclists). For bus and coach drivers the maximum authorised BAC is 0.2 g/l. Since 2009 all buses that carry children have alcohol interlocks installed. Since 1 July 2015 the maximum authorised BAC is 0.2 g/l for novice drivers during their probation period. A crash is defined as alcohol related when any of the active participants has a BAC above the legal limit.

Experimentation with the use of alcohol interlocks for drink-driving offenders started in December 2016 in some regions. Some drink-driving offenders, subject to a mandatory review by a medical committee, will be allowed to resume driving on the condition that they install an alcohol interlock device in their vehicle.

Drugs and driving is of continuing concern. In 2016, 488 persons were killed in a crash when at least one of the drivers was tested positive for drugs. Since 2010 between 21% and 26% of fatal crashes for which results of drug tests are known have involved use of illegal drugs.

A study among drivers estimated that 3% of crashes could be attributed to the consumption of prescription drugs. Benzodiazepines (anxiolytic or hypnotic) and antidepressants, widely used in France, are associated with a significant increase in the risk of causing a road crash.

In 2016, among drivers tested with a BAC above the legal limit of 0.5 g/l, 37% also tested positive in a drug test.

Since 2003, driving under the influence of substances or plants classified as narcotics constitutes an offence. Testing is approved for the following categories: cannabinoids, amphetamines, cocaine and opiates. Increased random drug tests, using a saliva-testing kit, will be carried out by the police, which are less expensive than blood tests. After a

trial period from December 2015 to June 2016 in 11 counties, saliva tests were generalised in 2017. Between January-May 2017 and January-May 2018, the number of drug tests using a saliva testing kit increased by 25%.

An increasing problem for traffic safety in France is **distraction**, for instance through the use of mobile phones while driving or crossing a street. In 2016, "distracted attention" was noted as the contributing factor of 9% of fatalities, or 310 people.

It is forbidden to drive with a hand-held mobile phone, but the use of hands-free mobile phones is tolerated. While phoning when driving is a growing concern, the concern is even greater over the expanding number of communication functions offered by a smartphone. Since 1 July 2015, drivers are prohibited from using any device attached to the ear while driving, whether used for phone calls or for listening to music or the radio (headphones, headsets).

The share of **sleepiness and fatigue** as a causal factor in crashes is especially challenging to detect. According to police records, sickness and sleepiness are a contributing factor in 5% of fatal crashes. Fatigue or drowsiness is more prevalent on motorways operated under a concession, where it was identified in 25% of fatal road crashes during the period 2012-16. The 4-8 am and 2-5 pm time slots account for half of the fatal road crashes where drowsiness is a contributing factor, 36% and 16% respectively (ASFA, 2017).

Seat belt wearing has been compulsory for drivers and in front seats in rural areas since 1973, in urban areas and at night since 1975 and at all times since 1979. They have been compulsory in rear seats since 1991. Children under 10 must be seated in a rear seat and be adequately restrained, taking into account their weight and height.

The seat belt wearing rate is among the highest in OECD countries; however, there is still room for improvement, especially for rear seats. In 2016, 20% of car occupants killed, 31% of utilitarian vehicle occupants and 32% of heavy truck occupants killed were not wearing a seat belt or the seat belt was not well buckled when the crash occurred.

Table 3. Seatbelt wearing rate by car occupancy and road type
Percentages

	2005	2012	2017
Front seats			
Urban roads	94	96	98
Motorways	98	99	99
Rear seats			
Urban roads (adults)	66	71	82
Motorways (adults)	73	84	90
Urban roads (children – use of child restraint)	85	89	88
Motorways (children – use of child restraint)		92	93

For motorcyclists, **helmet wearing** is the most effective passive safety habit. In France, wearing a helmet was made compulsory in 1973 for motorcyclists with engines over 125cc and for moped riders and motorcyclists with engines of 50cc to 125cc in rural areas. This obligation was extended to urban areas in 1975. The helmet-wearing rate for motorised two-wheelers (it is difficult to discriminate between mopeds and motorcycles during observations) is almost 100% during weekdays but only 90% during the weekend. In 2016, 33 of the moped or motorcycle riders killed (21 motorcyclists [4%] and 11 moped riders [10%]) were not wearing a helmet.

Since March 2017, it is illegal to allow children under 12 to ride a bike without a helmet. Failure to do so results in a fine for the parents.

Road safety management and strategies

The number of road fatalities peaked in 1972 with about 18 000 fatalities. France had a fatality rate of 35 deaths per 100 000 inhabitants. Since then, the number of fatalities has followed a downward trend, with fluctuations from year to year. Between 1990 and 2017, the number of road fatalities decreased by 70%.

Between 1990 and 2000, the following important road safety measures were introduced:

- in 1989 the publication of the White Paper on Road Safety paved the way for road safety policies on improving and enhancing enforcement that would come into effect 10 years later
- the maximum speed limit in built-up areas was set at 50 km/h in 1990, and the maximum allowable BAC was lowered to 0.5 g/l
- the demerit point system was introduced in 1992
- most motorway network construction was achieved during this period
- most vehicles were equipped with airbags
- the educational continuum was implemented.

Despite these measures, fatalities only decreased by 20% during the decade, as traffic increased by 20%. In 2000, there were 15 people killed per billion vehicle kilometres driven and 14 per 100 000 inhabitants. In July 2002, French President Jacques Chirac declared road safety to be one of his four main priorities. Between 2000 and 2010 important advances in road safety included:

- the first permanent automated speed cameras were introduced in 2003
- a Road Safety National Council was established for public and private stakeholders to meet and present action proposals to the government

- probationary licences were introduced in 2004
- a driver caught exceeding the maximum BAC level would lose six demerit points out of 12 (or 6 out of 6 for drivers in their probation period).

These changes made it possible to break through the symbolic level of 5 000 fatalities per year in 2006. Fatalities fell by 51% over the 10-year period. Experts attribute 75% of the improvement to a reduction in average speed and 11% to improved vehicle safety. At the same time, traffic was up by 7%.

Responsibility for the organisation of road safety in France lies with the Road Safety Directorate which has reported to the Minister of the Interior since 2012. The Minister of the Interior chairs the Inter-ministerial Road Safety Committee, an assembly of representatives of various ministries, where decisions are taken. The ONISR observatory reports to the road safety director and is responsible for managing the road traffic accident database, analysing road safety performance and organising research to prepare for new measures and evaluate them. The National Road Safety Council (CNSR) is in charge of presenting road safety action proposals to the government. Its main role is to provide guidance to the government, formulating recommendations and identifying objectives to reduce road crashes. It is assisted by an expert committee which provides appropriate technological and scientific input.

Since 2010, the objective has been set to reduce the number of road deaths by half over the period 2011-20.

An action plan with 26 road safety measures was launched in January 2015, aiming at reducing injuries among vulnerable road users. The Interministerial Road Safety Committee (CISR) met on 2 October 2015 for the first time since 2011. A 22-point action plan was announced, accompanied by 33 additional measures, articulated around the following objectives:

- to increase the fight against dangerous behaviour on the road
- to protect vulnerable road users
- to bring road safety into digital era
- to strengthen legal equality for all road users.

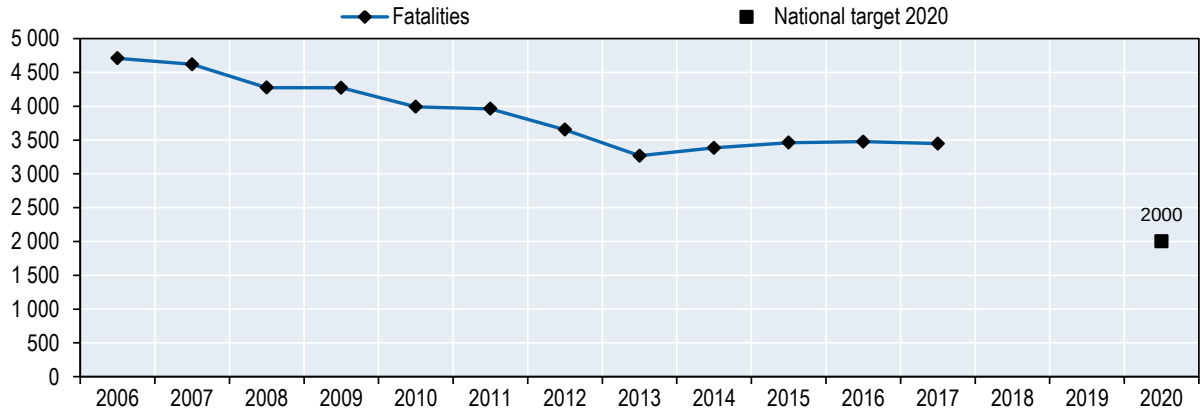
In January 2018, the French government confirmed its commitment to save more lives on our roads during the Road Safety Inter-ministerial Committee (CISR).

The current **target** of the French government is to reduce the number of road fatalities to below 2 000 by 2020, which is in line with the European Commission goal of halving the number of fatalities by 2020. In order to achieve this objective, **key priorities** identified by the government are the reduction of fatalities among young people, novice drivers and among riders of motorised two-wheelers, as well as and to tackle the main

crash-contributing factors of speed and impaired (alcohol/drug) driving. Priorities are regularly re-formulated in relation to road safety outcomes. The progress towards the 2020 target is measured using national indicators and published each year in the French Road Safety Observatory (ONISR) annual report. The projections of road fatalities produced through the simulation models of population dynamics are also considered a tool for the management of implemented policies. Based on the results obtained in the past three years, it is unlikely that the target will be achieved.

In 2017, France adopted the Valletta declaration, setting a target of halving the number of serious injuries in the EU by 2030 from the 2020 baseline.

Figure 6. Trends in road fatalities towards national target



Measures

Several measures to improve **road safety management** have recently been put into place. In particular, the National Council for Road Safety (CNSR) was revived in January 2017, consolidating its position in providing advice to government, formulating recommendations and identifying objectives in order to reduce road crashes. It is assisted by an expert committee, also reactivated, to provide appropriate technological and scientific inputs. The CNSR initiated its work around thematic commissions: "vulnerable users", "education and work-related risks", "vehicles, innovative technologies and infrastructures", and "driving and medical conditions".

Likewise, a number of rules and **regulations targeting road behaviour** were introduced. As of 2017, on-board speed cameras will be operated by accredited private providers on pre-defined routes by administrative authorities and police forces. **Video-verbalisation** is being developed and has been used since 2017 for eleven categories of traffic offences (exceeding driving speeds, using the phone while driving, failure to wear a seat belt or a helmet, etc.).

Since January 2017, it is mandatory for employers to identify who was driving a company vehicle when it was detected committing an offence by a safety camera. For companies,

the fixed fine for road traffic offences will be increased five-fold. Liability may be established for state employees who commit a road traffic offence while using an administrative vehicle placed at their disposal.

Since February 2017, the use of **alcohol interlocks** has been extended for drivers found guilty of drink-driving offences by court. The introducing of alcohol interlocks will speed up in the administrative and judicial context, with experimentation in the counties of Drôme, Nord, and Marne beginning December 2016. Some drink-driving offenders, subject to a mandatory review by a medical committee, will be permitted to resume driving on the condition that they install an alcohol interlock device in their vehicle.

Since March 2017, it is illegal to allow children under 12 to ride a bike without a **helmet**. Failure to do so results in a fee for the parents.

Regarding **vehicle safety**, in September 2017 the government launched a consultation with professionals from the automobile industry to consider a new regulation concerning future autonomous vehicles. Based on the results of this consultation, a framework for strategic action for the **development of automated vehicles** was presented in May 2018 by the concerned ministries (Ministry of the Interior, Ministry of the Ecological and Inclusive Transition, Ministry of Transport, Ministry of Economy and Finance). Action taken as a result includes:

- the appointment of a High Representative for automated vehicles and the implementation of an Ethics and Acceptability Commission
- the introduction of an appropriate national and international regulatory framework (driving rules, technical regulations, approval of vehicles)
- developing a knowledge base around the impact and issues of different uses of automated vehicles (experiments, pilot projects, research priorities)
- the protection of automated and connected vehicle data (data protection, cybersecurity, economic and competition aspects).

This consultation also feeds into the debate at the Conference on Mobility held in December 2017 and a project concerning legislation on mobility scheduled for 2018.

In order to tackle road **traffic offences committed abroad**, cross-border exchanges of information were reinforced in 2017. New agreements were signed with Hungary, Slovak Republic, Czech Republic and Portugal.

During the Road Safety Inter-ministerial Committee (CISR), three key concepts were identified, linked to 18 new measures:

- the commitment of each citizen for road safety
- the protection of all road users

- the proactive promotion of new technology for road safety.

Among these new measures, the **speed limit** has been reduced from 90 to 80 km/h on two-lane single carriageways from 1 July 2018, to reduce the likelihood of collision and severity of injury. Between 350 and 400 deaths could have been prevented by this measure as 55% of road deaths in France occur on the 400 000 km of rural roads. This measure includes a review clause in July 2020 and will be subject to an assessment (impact on driving speed, road safety performance, social acceptability and socio-economic effects).

This new CISR also provides for the possibility of suspending the licence of a driver using a **mobile phone** at the wheel and the development of alcohol interlocks required for recidivist drink-driving offenders (with medical and psychological counselling).

In order to tackle **work-related road risks**, companies are called on to respect seven commitments and to ensure appropriate road safety conditions for their employees. So far, in 2018, this call has already been signed by more than 500 companies and public administrations, representing 3 million employees.

Definitions, methodology, data collection

Road fatality: Person who died within 30 days of a road crash. Before 2005, fatalities were counted within six days. For international comparisons, a correction factor of 1.069 is applied for the years before 2005.

Hospitalised: Non-fatal casualty who stayed longer than 24 hours in hospital. Before 2005, this category used the duration of more than 6 days for the hospital stay.

Slightly injured: Non-fatal casualty who received medical care but did not stay in hospital longer than 24 hours (or 6 days before 2005).

Seriously injured: Person who is injured with at least one injury ranking three or more on Maximum Abbreviated Injury Scale (MAIS3+), not including those who died within 30 days.

Proven suicides and intentional murders are not registered as road traffic crashes.

French official road safety information comes from the National Road Traffic Accident (RTA) database which includes results for mainland France only, unless specified that data from overseas territories are included.

Road traffic crashes leading to injury are recorded by the police into their own software programme according to a dedicated format, the Injury Accident Analysis Bulletin (BAAC, Bulletins d'analyse d'accident corporel). These files are then gathered centrally through a web-based programme and constitute the National RTA database.

A new information system is currently under development to modernise the data collection process and the analysis of road traffic accident data. The format of the Injury Accident Analysis Bulletin (BAAC) has been revised accordingly (date of implementation January 2018) to facilitate the work of the police, improve the coherence of statistics and to introduce information about new means of transport or accident factors.

The data collection process is managed by the French Road Safety Observatory (ONISR, Observatoire national interministériel de la sécurité routière), with the assistance of technical teams from the French Research Centre on Risks, Environment, Mobility and Planning (CEREMA, Centre d'études et d'expertise sur les risques, l'environnement, la mobilité et l'aménagement) and the network of local observatories to check and complement the information as necessary.

Monitoring the quality of data is partially ensured by comparing it with the Rhone registry, i.e., information gathered from hospitals in the Rhone region on all road traffic crash victims who received medical care at a hospital. Information on the number of fatalities is considered very accurate and used as a benchmark. Serious injury crashes are usually recorded accurately too, except in the case of single vehicle crashes involving motorised two-wheelers and cyclists.

There are some variations across the country over the way slight injury accidents are recorded. The French Institute of Science and Technology for Transport, Development and Networks (IFSTTAR) estimates that the number of injured people is significantly underestimated and could be four times greater than the registered number.

Based on the expertise developed by using both the Rhone registry and the National RTA database, IFSTTAR has been tasked with providing a national estimate for MAIS3+ victims to provide the relevant information requested by the European Commission for their 2014 baseline.

Resources

Recent research

In order to meet road safety challenges and to obtain a better understanding of road crashes, the French Road Safety Directorate (DSR) identified seven research priorities for the period 2018 to 2022:

- vulnerable road users
- young and older road users
- reducing the number of serious injuries
- behavioural factors (speed, alcohol, drugs)

- ensuring regulatory compliance and safe traffic
- automated vehicles
- assessment of road safety policies.

As part of this strategy, DSR launched its first call for proposals 2018-22, with at least one session opened each year. More information is available here: *http://www.securite-routiere.gouv.fr/la-securite-routiere/l-observatoire-national-interministeriel-de-la-securite-routiere/recherches-et-etudes/appel-a-projets*.

Reduction of speed limits

The Cerema carried out a study on the 80 km/h speed limit experiment, which took place from 2015 on three stretches of road representing 81 km. Six measurement campaigns were performed between July 2015 and June 2017. The results showed a reduction of average speeds for all road users of 4.7 km/h, more specifically a decrease of 5.1 km/h for light vehicles and a decrease of 2.7 km/h for HGVs, already subjected to an 80 km/h speed limit.

The French Road Safety Observatory conducted a survey in order to better understand local issues on main rural road networks (national and county roads). Even though they represent a small part of the rural network (10% on average), they account for a large share of road fatalities (38% on average of fatalities on rural single carriageways with two lanes).

Vehicle Occupant Infrastructure Road User Safety Study (*VOIESUR, Véhicule occupant infrastructure études de la sécurité des usagers de la route*): this project led to the launch of several in-depth analyses from police reports registered in the VOIESUR database (gathering all fatality crash reports and 1 out of 20 injury crash reports in France for 2011). Concerning driving speeds in road crashes, 30% of drivers involved in fatal traffic crashes occurring on rural single carriageways with two lanes exceeded the speed limit.

Medication and road safety

The objective of the study on health and road safety problems (*CESIR III, Combinaison d'Etudes sur la Santé et Insécurité Routière*) is to identify and quantify the impact of medication consumption on road traffic crash risk. Case-control analyses were conducted, based on data matching from road crash databases (*BAAC*, *analysis bulletin of road traffic injury crash files*), police reports and health consumption (*SNIIR-AM*). Several medications pose driving risks: benzodiazepines, antidepressants, anti-epileptics and narcotic drugs.

Development of an on-board data recorder

Infrastructure Diagnostic and Vehicle Dynamic (*DYMOA, Diagnostric d'infrastructure et dynamique du véhicule*): during this project – a partnership between IFSTTAR, Cerema and the Assurance Mutuelle des Motards – a fleet constituting 30 vehicles was equipped with event data recorders in order to identify high-risk infrastructure and to recommend specific measures.

France's support for the ESRA project (E-survey of Road User's Attitudes)

France, represented by IFSTTAR, confirmed its support for the second edition of the ESRA survey. The collected and compared data on the opinions, attitudes and behavior of road users concerning road safety and mobility provide valuable input into the initiation of further studies and the development of road safety policy.

Closing of the Road Safety Foundation (*FSR, Fondation Sécurité Routière*)

For ten years, the Road Safety Foundation – a public/private partnership – has supported scientific research in the field of road safety (infrastructures, primary safety and soft modes of transport). Research has resulted in identifying practical outcomes, improving knowledge and renewing another generation of researchers. Concerning the arrival of automated vehicles, a new project will take over from the FSR concerning the safety of automated vehicle users and other road users.

Websites

ONISR - The French Road Safety Observatory:
http://www.securite-routiere.gouv.fr/la-securite-routiere/l-observatoire-national-interministeriel-de-la-securite-routiere

Road Safety in France: 2016 Annual Report:
https://www.securite-routiere.gouv.fr/content/download/37021/353698/version/1/file/Bilan+de+la+s%C3%A9curit%C3%A9+routi%C3%A8re+2016.pdf

The National Council for Road Safety: *http://www.conseil-national-securite-routiere.fr/*

IFSTTAR - The French Institute of Science and Technology for Transport, Development and Networks: *http://www.ifsttar.fr/*

CEREMA – The French Research Centre on Risks, Environment, Mobility and Planning: *http://www.cerema.fr/*

Health and Driving: *http://medecins.inserr.org/*

Road Safety Foundation: *http://fondation-securite-routiere.org/*

European centre of studies on safety and risk analysis: *http://ceesar.quadrupede.com/en/*

UTAC CERAM (Car, Motorcycle and Bicycle Technical Union): *http://www.utacceram.com/fr/*

Contact

onisr-dscr@interieur.gouv.fr

References

ASFA (2017), *Analysis of injury and fatal road crashes*.

Road safety and traffic data

						2016 % change over				
	1990	**2000**	**2010**	**2015**	**2016**	***2015***	***2010***	***2000***	***1990***	**2017**
Reported safety data										
Fatalities	11 215	8 079	3 992	3 461	3 477	0.5%	-12.9%	-57.0%	-69.0%	3 448
Injury crashes	162 567	121 223	67 288	56 603	57 522	1.6%	-14.5%	-52.5%	-64.6%	58 613
Injured persons hospitalised	..	..	30 393	26 595	27 187	2.2%	-10.5%	..	..	27 732
Deaths per 100 000 population	19.8	13.7	6.4	5.4	5.4	0.1%	-15.4%	-60.8%	-72.8%	5.3
Deaths per 10 000 registered vehicles	3.6	2.3	1.0	0.8	0.8	-0.3%	-18.7%	-64.1%	-77.8%	0.8
Deaths per billion vehicle kilometres	26.7	15.6	7.1	5.9	5.8	-2.0%	-18.6%	-62.8%	-78.3%	5.7
Fatalities by road user										
Pedestrians	1 534	838	485	468	559	19.4%	15.3%	-33.3%	-63.6%	484
Cyclists	437	270	147	149	162	8.7%	10.2%	-40.0%	-62.9%	173
Moped riders	716	456	248	155	121	-21.9%	-51.2%	-73.5%	-83.1%	117
Motorcyclists	1 031	937	704	614	613	-0.2%	-12.9%	-34.6%	-40.5%	669
Passenger car occupants	6 862	5 291	2 117	1 796	1 760	-2.0%	-16.9%	-66.7%	-74.4%	1 767
Other road users	635	288	291	279	262	-6.1%	-10.0%	-9.0%	-58.7%	238
Fatalities by age group										
0-14 years	546	363	130	101	108	6.9%	-16.9%	-70.2%	-80.2%	104
15-17 years	472	350	161	125	96	-23.2%	-40.4%	-72.6%	-79.7%	101
18-20 years	1 153	857	370	284	263	-7.4%	-28.9%	-69.3%	-77.2%	246
21-24 years	1 594	869	461	335	334	-0.3%	-27.5%	-61.6%	-79.0%	316
25-64 years	5 784	4 157	2 105	1 785	1 790	0.3%	-15.0%	-56.9%	-69.1%	1 812
65-74 years	756	624	264	312	320	2.6%	21.2%	-48.7%	-57.7%	342
≥ 75 years	882	718	499	519	566	9.1%	13.4%	-21.2%	-35.8%	527
Fatalities by road type										
Urban roads	3 940	2 250	1 133	988	1 019	3.1%	-10.1%	-54.7%	-74.1%	1 010
Rural roads	6 542	5 250	2 603	2 175	2 188	0.6%	-15.9%	-58.3%	-66.6%	2 156
Motorways	732	578	256	298	270	-9.4%	5.5%	-53.3%	-63.1%	282
Traffic data										
Registered vehicles (thousands)	30 869	35 874	40 181	42 701	43 026	0.8%	7.1%	19.9%	39.4%	43 451
Vehicle kilometres (millions)	419 772	518 248	560 429	584 914	599 640	2.5%	7.0%	15.7%	42.8%	606 042
Registered vehicles per 1 000 population	545.6	609.5	640.2	663.6	666.0	0.4%	4.0%	9.3%	22.1%	669.7