REDUCING ROAD DEATHS AMONG YOUNG PEOPLE AGED 15 TO 30

PIN Flash Report 41

October 2021

European Transport Safety Council

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The Road Safety Performance Index (PIN) Programme receives financial support from the German Road Safety Council (DVR), Toyota Motor Europe, the Swedish Transport Administration, the Norwegian Public Roads Administration and CITA, the International Motor Vehicle Inspection Committee.

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October 2021

ACKNOWLEDGEMENTS

For their assistance providing data, background information and expertise, the authors are grateful to members of the PIN Panel and Steering Group. Without their contribution, this report would not have been possible. Special thanks go to the co-chairs of the PIN programme, Henk Stipdonk and Heather Ward and the PIN Programme advisor Richard Allsop. ETSC is grateful to Peter Whitten and Patrick Metens from the European Commission for providing CARE data. ETSC would also like to thank Dr. Divera Twisk, Adjunct Professor, Centre for Accident Research and Road Safety, Queensland University of Technology, Brisbane Australia for her support and advice.

The PIN programme relies on panellists in the participating countries to provide data for their countries and to carry out quality assurance of the figures provided. This forms the basis for the PIN Flash reports and other PIN publications. In addition, all PIN panellists are involved in the review process of the reports to ensure the accuracy and reliability of the findings.

ETSC is grateful for the financial support for the PIN programme provided by the German Road Safety Council (DVR), Toyota Motor Europe, the Swedish Transport Administration, the Norwegian Public Roads Administration and CITA, the International Motor Vehicle Inspection Committee.

ABOUT THE EUROPEAN TRANSPORT SAFETY COUNCIL (ETSC)

ETSC is a Brussels-based, independent non-profit organisation dedicated to reducing the numbers of deaths and injuries in transport in Europe. Founded in 1993, ETSC provides an impartial source of expert advice on transport safety matters to the European Commission, the European Parliament, and European countries. It maintains its independence through funding from a variety of sources including membership subscriptions, the European Commission, and public and private sector support.

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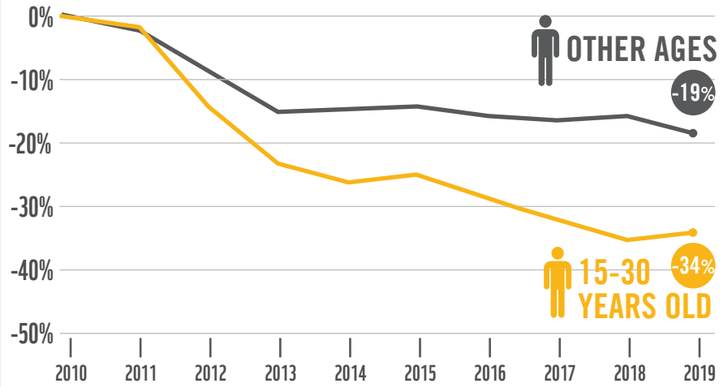

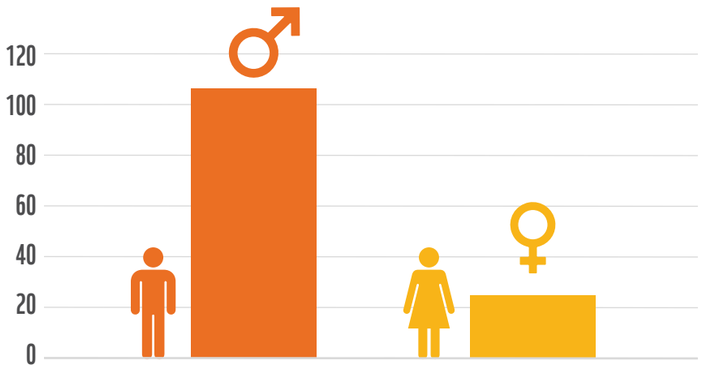

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FOREWORD

Every week in the European Union, an average of 100 young people die on our roads and hundreds more are seriously injured. Many of these deaths and injuries are preventable as we have the tools necessary to eradicate large parts of this cause of one in five deaths among young people.

On a certain level, the news appears to be good. Deaths in the age group 15-30 are declining at a faster rate than other age groups. There are many possible societal causes as well as genuine improvements in road safety that are happening in many European countries.

An ageing population explains part of the reduction in absolute numbers – though in this report we look at mortality in different age groups to account for this. Young people may simply be using the roads less. Higher unemployment, or staying longer in further education, may be a factor, as work-related road deaths are common. Young people may no longer rush to get a driving licence as soon as it is legally allowed – perhaps due to economic factors, or perhaps for environmental reasons. One transformative shift in society in recent years has been the use of online social networks, chat services and online gaming which may have reduced the need for young people to meet up 'in the real world'. The Covid-19 pandemic may have exacerbated this trend, though it should be noted that this report only had access to age-specific data until the year 2019, before the words 'lock down', 'remote learning' and 'zoom call' came into popular use.

On a certain level the news appears to be good. Deaths in the age group 15-30 are declining at a faster rate than other age groups.

Covid has also had the effect of boosting other mobility trends that were already in evidence before 2020, such as increased cycling, and the use of micro-mobility vehicles such as e-scooters – which are popular among younger road users.

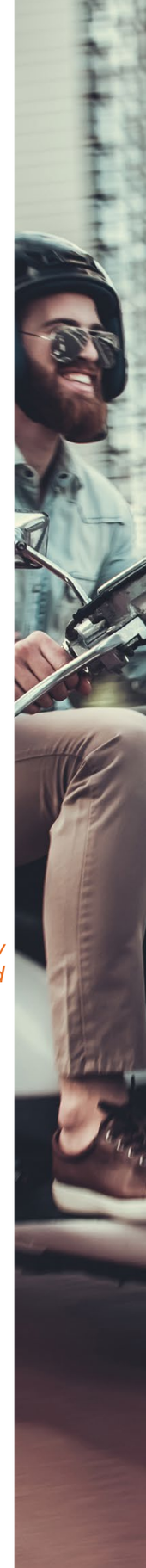
This complex picture belies a simple truth: countries that perform well on road safety in general see much lower rates of road deaths among their young population. Good practice such as lower speeds, safer infrastructure, safer vehicles and high levels of enforcement benefits the younger population disproportionately.

Targeted measures also play an important role. Graduated driver licence schemes, whereby novice drivers face a series of restrictions in the first months of independent driving, have shown positive effects, as does a zero tolerance approach to alcohol and drugs, which affect young drivers even more negatively than older ones. Making young people drive alone when they first get their licence, without a group of their mates to distract them or coerce them into dangerous behaviour is a smart move. Restricting driving to daylight hours may also help. Telematics-based insurance policies can also make a difference, but these have not taken off so far.

In cold, hard economic terms, killing young people is bad for economies. Society invests heavily in education and health systems to produce productive members of society.

Countries that perform well on road safety in general see much lower rates of road deaths mong their young population.

On a human level, it should remain a stain on our society, so advanced in many ways, that more than 5000 of our youngest Europeans are killed every year on our roads – when simple measures, applied universally, could make so many of those deaths a thing of the past.



EXECUTIVE SUMMARY

This report looks at the progress made in Europe in reducing road deaths among young people. It is based on the latest available data from the 32 EU and non-EU countries that participate in ETSC's Road Safety Performance Index (PIN) programme, examining trends over time as well as differences between countries, which are very significant. The format, now familiar to readers of past PIN reports, comes in three parts: Part 1 looks at road deaths, Part 2 at serious injuries, and Part 3 at the broad array of countermeasures that are in effect, or should be considered.

In this report we consider 'young people' to be those aged 15 to 30 (inclusive).

In 2019, 5,182 young people were killed in road collisions in the 25 EU countries for which numbers are available so far. This is 3,434 fewer young people killed than in 2010. Young road user deaths represented 23% of all road deaths in these countries in 2019.

Young road user deaths per million young inhabitants went down by 34% over the period 2010-2019 compared to just 19% for other age groups over the same period. Most of the reduction took place over the period 2010-2014, during the economic recession that followed the financial crisis of 2008.

Road deaths among young people aged 15 to 30 represent on average in the EU 18% of deaths from all causes in the same age group.

Road mortality data for all young people aged 15-30 mask large disparities between men and women. On average over the last three years, men account for 81% of all road deaths among young people aged 15-30. Large differences between male and female road mortality remain after taking into consideration the fact that men drive more than women.

On average across the EU, 39% of young men killed in road collisions are car drivers, 23% are motorcycle riders, 16% car passengers, 7% pedestrians, 4% moped riders and 3% cyclists.

Road deaths in collisions involving a young driver or rider in the EU account for 37% of all road deaths. For each young driver or rider killed there are 1.6 other road users killed in the same set of collisions.

There has been slow progress in reducing the numbers of young people seriously injured on EU roads

While young people are a high-risk group in themselves, most young people do not deliberately drive unsafely. The risks associated with young drivers and riders stem from inexperience, immaturity and lifestyle linked to their age and gender.

While specific targeted measures are needed to address young road user safety, overall road safety improvements also help to improve the safety of young road users. Countries with safe roads overall tend to have safer young road users. They benefit from road systems that are more forgiving when it comes to driver errors such as those outlined in the Safe Systems approach.

Many young people drive smaller and older cars due to issues of choice, cost and practicality. Smaller cars are often favoured by young people as they are seen as easier to drive and cheaper. Similarly, many young people are unable to afford a new car and therefore rely on older, second-hand cars which lack more modern safety technologies and are, on average, lighter. It is important that young road users choose cars that are as safe as practicable for themselves, their passengers and other road users who might be involved.

Collision risk is highest in the period immediately after obtaining a licence, when young people are driving and riding independently for the first time.

The younger a person starts unrestricted solo driving, the more likely it is that he or she will have a fatal collision, particularly below 18 years-old. Thus, as a first step, it is extremely important to set an appropriate age for first unrestricted solo driving.

Graduated driving licence systems have been assessed by a number of studies, which nearly all show a reduction in collisions.

Young people, especially men, are over-represented when it comes to road deaths linked to drink-driving and drugs. Enforcing and tightening limits and improved help for those living with identified alcohol and other drug issues can therefore help reduce these deaths.

Drug driving is not as well understood a phenomenon as drink-driving and lacks the benefit of widespread public awareness. Illegal drug use increases with age between the ages of 15-25. Illegal drug use among young people is double that among adults. It is known that young people, especially men and those with sensation seeking and risky behavioural traits are more likely to drug drive. However, with a combination of legislation, enforcement, screening devices and help for those living with identifiable drug issues, drug driving can be addressed.

Young people, especially men, are over-represented when it comes to road deaths linked to drink-driving and drugs.

Driver distraction, related to the ever-growing use of mobile phones and other technologies such as satellite navigation devices and in-car entertainment systems, has a negative effect on road safety. For many younger drivers, using an electronic device has become an inseparable part of participating in traffic. Compared to older road users, young people more often use a phone, text, listen to music or eat or drink while driving a car, but also while cycling and walking.

Data from several PIN countries indicate that non-use of seatbelts in fatal collisions is more prevalent for young people than for older vehicle occupants. From the data that we were able to gather from PIN countries, helmet wearing rates among young powered two-wheeler riders are also problematic in some countries.

MAIN RECOMMENDATIONS TO NATIONAL GOVERNMENTS

- Achieve high levels of overall road safety. Important road safety benefits for young and novice drivers will result from measures aimed at improving overall road safety. Safer cars and safer road infrastructure will reduce the risk of driving errors that might result in fatal collisions.
- Continue to upgrade and redesign transport infrastructure according to the Safe System approach and in line with the new requirements of the Road Infrastructure Safety Management Directive 2019/1936.
- Promote the understanding and choice of safer vehicles by young people via consumer information. Put incentives in place to make safer cars and safety technologies more accessible to young people.
- Implement those aspects of Graduated Driver Licensing that would most benefit young driver safety in the particular country.
- Establish a hazard perception test. Incorporate higher level Goals for Driver Education (GDE) components into testing.
- Where these do not exist, introduce stricter demerit systems during a probationary period for newly licensed drivers with penalties such as loss of licence or mandatory traffic risk awareness training.
- Consider adopting a zero tolerance level for BAC while in charge of a vehicle (i.e. a maximum BAC of 0.2g/l) for all drivers and riders: this will benefit novice drivers as well.
- Introduce a zero tolerance system for illicit psychoactive drugs using the lowest limit of quantification that takes account of passive or accidental exposure.
- Improve enforcement in particular against the main killers: speed, drink-, drug- and distracted-driving and non-use of protective equipment (seat belts and helmets).
- Consider targeted and random enforcement of traffic law in areas and at times with high traffic of young road users.

MAIN RECOMMENDATIONS TO THE EU INSTITUTIONS

- In the framework of the upcoming revision of the Driving Licence Directive:
  - o Encourage Member States to introduce Graduated Driving Licence systems to address the high risks faced by new drivers and riders thus allowing them to gain initial driving experience under lower-risk conditions between gaining the learner permit and fully licensed status.
  - o Introduce probationary periods for novice drivers. Under any system, young, novice drivers should be subject to limits on driving with peer passengers and/or at night as well as to a zero tolerance for drink-driving.
  - o Do not allow the lowering of the minimum age for obtaining a driving licence for any road users.
- Consider adopting a Directive on a zero tolerance level for BAC while in charge of a vehicle (i.e. a maximum BAC of 0.2g/l) for all road users: this will benefit novice drivers as well.
- Introduce an EU zero tolerance system for illicit psychoactive drugs using the lowest limit of quantification that takes account of passive or accidental exposure.
- Adopt common standards for roadside drug-driving enforcement

PART I

REDUCING ROAD DEATHS AMONG YOUNG ROAD USERS

NOTE ON COUNTRIES COVERED BY THE ETSC PIN PROGRAMME

This report includes aggregate data analysis covering the 32 countries that participate in ETSC's Road Safety Performance Index (PIN) programme. They are:

- The 27 EU Member States;
- the United Kingdom, a former EU Member State;
- Norway and Switzerland, two Member States of the European Free Trade Area;
- Israel, an associated state of the European Union;
- Serbia, a candidate EU Member State.

The 27 EU Member States together with the UK agreed to, and worked towards, the aim of achieving the common target to halve the number of road deaths in the EU over the period 2010-2020. This target followed an earlier target set in 2001 to halve the number of road deaths by 2010. A new target to halve road deaths and the first target to halve the number of serious road traffic injuries by 2030 compared to 2020 levels in the EU were announced by the European Commission on 17 May 2018.

WHY YOUNG PEOPLE 15 TO 30?

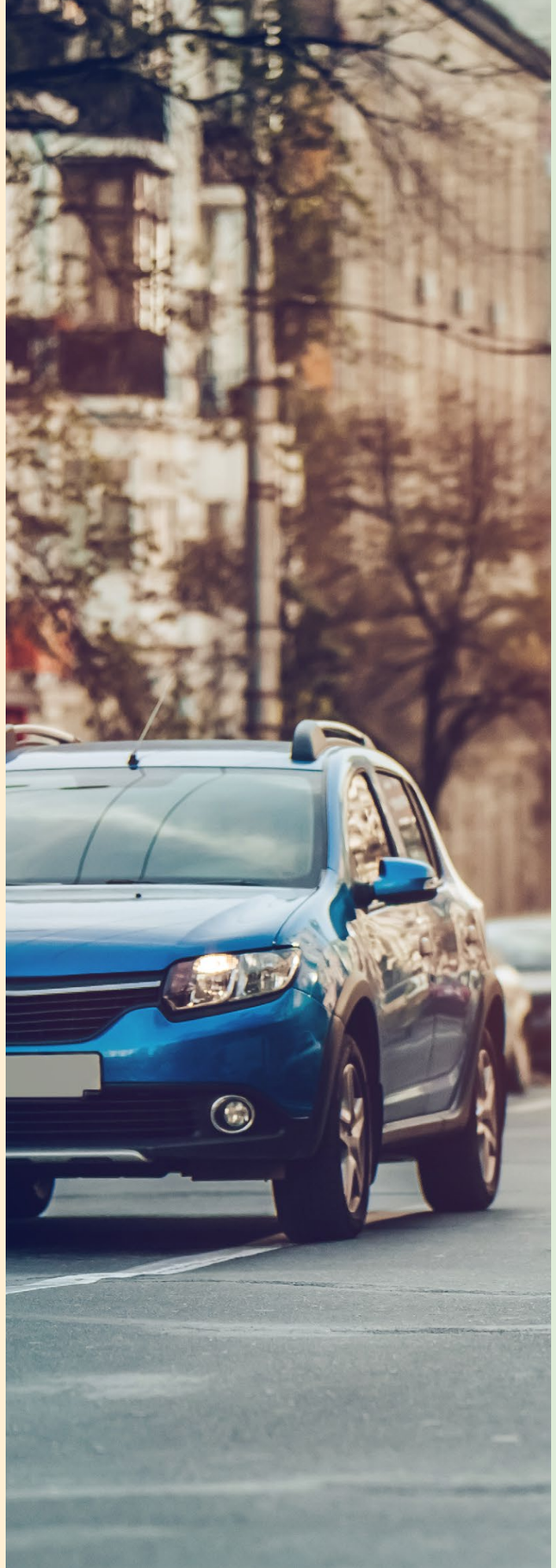
In this report we consider 'young people' to be those aged 15 to 30 (inclusive). There is no official definition for the specific period in life when a person is considered to be 'young'. While the definition 15 to 30 is somewhat arbitrary it reflects the age range used for the EU Youth Indicators[1] (15-29).

'Up to 14' was used to define the category 'children' for PIN Flash 34, as up to 14 the ways children travel are often dictated by the choice of parents.[2] Fifteen is in many EU countries the age at which one can start driving a moped or a motorcycle and finishes compulsory full time education. Moreover, in some countries, 15 is the age at which one is considered legally responsible for one's acts.

Road safety research has traditionally considered 'young people' to be those aged 18 to 25. The path from childhood to independent adulthood is lined with a number of crucial milestones, such as leaving the parental home to study or to work. Young people are typically in a period of rapid maturation, during which they test boundaries and assert independence. They are at a stage in life that is often intensely social, including being active at night and at weekends, in groups, and sometimes involving alcohol and other recreational drugs.[3] Towards the end of the 15-30 age-range other social transitions can take place, and while road safety tends to improve for 25-30 year olds, other issues such as fatigue and distraction (from, for example, starting a family) can also impact driving.[4]

This report considers all kinds of road users among young people. Powered two-wheelers, cycling and walking remain commonly used modes of transport for young people.

[1] Commission Staff Working Document on EU indicators in the field of youth, SEC(2011) 401 final https://bit.ly/38ytoHM
[2] ETSC (2009) 3rd PIN report, Chapter 3, Reducing child deaths on European roads https://bit.ly/3DTiUQu
[3] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[4] Maasalo (2021) Drivers with child passengers in fatal crashes: cautious but distracted? https://bit.ly/3Ac8GK7



THE INDICATOR

To allow for the effect of changes in the population, the annual average change[5] in road mortality (road deaths per million population) among young people aged 15 to 30 inclusive between 2010 and 2019 is used as the main indicator in this PIN ranking (Fig. 2).

The numbers of recorded road deaths used in this PIN Flash report were retrieved by the European Commission from the CARE database on ETSC's request. Additional data and updates, when needed, as well as qualitative information were provided by the PIN panellists (see inside cover). Data for the Netherlands were provided by the PIN panellist from Statistics Netherlands records instead of the police records for Fig. 1, 2, 3, 4, 6 and 7 and cover age group 15-29 instead of 15-30 due to the data system limitations. For Fig. 5a, 5b, 8 and 9 Dutch police data are used as such data breakdown is not available to Statistics Netherlands. The Dutch police underreporting rate for young road user deaths is around 4%. Statistics Netherlands corrects collision data reported by the police by comparing and complementing police data with death certificates and court files of unnatural deaths. For other countries, this PIN Flash report makes use of the number of reported road deaths by the police and therefore does not take into account underreporting. Past studies have shown that underreporting is higher for pedestrians, cyclists and powered-two-wheeler (PTW) riders.[6] The full dataset is available in the Annexes. Population figures were retrieved from the Eurostat database.

The safety of young people on the road is expressed in terms of mortality, i.e. the number of young people 15 to 30 killed in road collisions divided by their population size (Figs. 1, 2, 3 and 4). Road deaths divided by population give a good estimate of the overall impact of shortfalls in road safety on the age group, while taking account of changes in the young population. Unfortunately, data on the number of young driving licences, or distance travelled, are available in only a few countries. Road deaths among young people are compared with deaths from all causes in the same age group (Figs. 6 and 7). Data on deaths from all causes were retrieved from the Eurostat database. Distance travelled is not taken into consideration when comparing countries due to a lack of data.

This report does not discuss the causes of collisions involving young people. From the existing research on the topic we know that collisions involving young people often combine aggravating factors such as driving at night or at weekends, carrying passengers of a similar age, speeding, drink-driving, driving without seat belts.[7] Drug-driving, especially involving cannabis, is increasing and becomes especially dangerous when the drugs are taken along with alcohol.[8] Young people are also overrepresented in single-vehicle and loss-of-control collisions.[9] Research also suggests that young drivers overestimate their skills and underestimate danger.[10]

The analysis builds on the previous ranking in ETSC's PIN Flash 21 (2012), 'Reducing road deaths among young people aged 15 to 30'[11] and the ETSC YEARS report (2017), 'Reducing casualties involving young drivers and riders in Europe'.[12]

[5] The average annual change is based on the entire time series of all the ten annual numbers of deaths between 2010 and 2019, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: https://bit.ly/3AfnpDC
[6] For more information, see for instance ETSC (2018), An Overview of Road Death Data Collection in the EU, PIN Flash 35, https://etsc.eu/pinflash35/ and PIN Flash 37, https://etsc.eu/pinflash37/
[7] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[8] DRUID, Driving under the Influence of Drugs, Alcohol and Medicines, www.druid-project.eu
[9] DaCoTA (2012) Novice Drivers, Deliverable 4.8j of the EC FP7 project DaCoTA https://bit.ly/3plWZeL
[10] de Craen (2010) The X-factor: A longitudinal study of calibration in young novice drivers https://bit.ly/3ylTR63
[11] ETSC (2012) A Challenging Start towards the EU 2020 Road Safety Target 6th Road Safety PIN Report https://bit.ly/3zbfGVB
[12] ETSC (2017) Reducing casualties involving young drivers and riders in Europe https://bit.ly/3lUHWIP

01

1.0 THE SCALE OF THE PROBLEM

In 2019, 5,182 young people were killed in road collisions in the EU 25.[13] This is 3,434 fewer young people killed than in 2010. Young road user deaths represented 23% of all road deaths in the EU 27 in 2019.

To take differences in changes in demographics into account, Fig. 1 presents the annual reduction in young road user mortality plotted against other road user mortality since 2010. Fig. 1 illustrates that part of the reduction in the numbers of young people killed can be explained by the 9% decrease in the population aged 18 to 30 in the EU between 2010 and 2019, while the population of the other age groups increased by 4%.

Young people road deaths per million young inhabitants went down by 34% over the period 2010-2019 compared to just 19% for other age groups over the same period (Fig. 1). Most of the reduction was made between 2010-2014, during the economic recession that followed the financial crisis of 2008.

This is in line with the findings of the 2015 report by the International Transport Forum, 'Studies that have investigated the relationship between economic performance and safety for different groups of the population find that the reductions in traffic fatalities during economic downturns tend to be largest among young people'.... 'Economic downturns are associated with a disproportionate reduction in the exposure of high-risk groups in traffic; in particular unemployment tends to be higher among young people than people in other age groups'.[14]

In 2019, 5,182 young people were killed in road collisions in the EU 25.

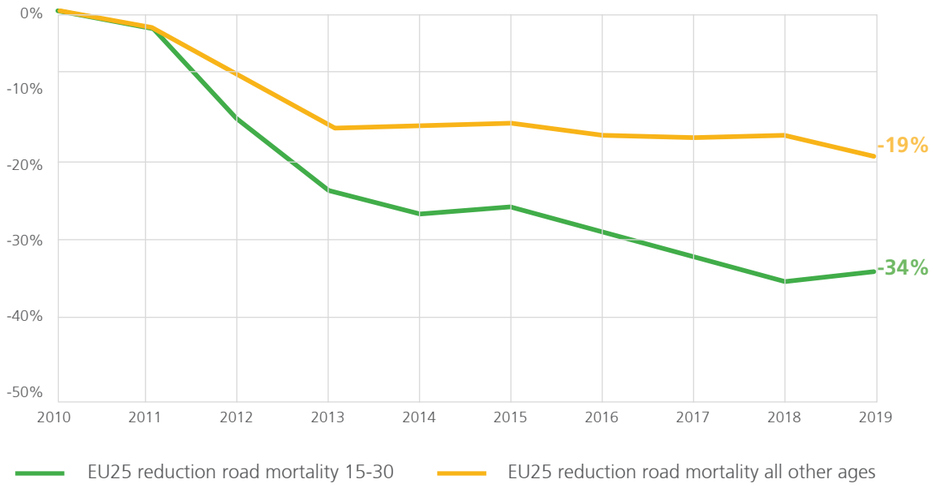


Fig. 1 Reduction in the road mortality of young people plotted against the reduction in the road mortality of the rest of the population since 2010.
EU25 average: EU27 excluding LT and MT due to insufficient data. NL and SK 15-29 year olds. IE 2018-2019 data provisional and subject to change.

[13] EU25 includes all EU Member States except for Lithuania and Malta due to insufficient data
[14] OECD/ITF (2015) Why does road safety improve when economic time are hard? https://bit.ly/3EjMVdk

1.1 YOUNG ROAD USER MORTALITY DECREASED FASTER THAN FOR OTHER ROAD USERS

Norway has seen the biggest reduction with young people road deaths per million young inhabitants dropping by 11% on average every year between 2010 and 2019. It is followed by Slovakia with a 9% annual decrease, Estonia, Belgium, and Luxembourg with 8% and Ireland, Cyprus and Switzerland with 7% since 2010. In more than half of all PIN countries road mortality among young people decreased by less than the EU average change of -4.7% (Fig. 2).

In the EU25, the road mortality of young people has improved by 2.5 percentage points faster on average each year than for the rest of the population since 2010. In all but four PIN countries, the road mortality of young people has decreased faster than for the rest of the population.

The largest difference in the average annual change of young road user mortality compared to the rest of the population was registered in Cyprus,[15] where road mortality among those aged 15-30 was cut by 7% every year on average, while mortality of rest of the population stagnated. In Slovakia, road mortality among those aged 15-30 was cut by 9%, while mortality of the rest of the population by only 3% and in Germany by 7% and 1% respectively (Fig. 2).

In contrast, in Israel, Latvia, Slovenia and Spain, the road safety of all other age groups has improved faster than the road safety of young people (Fig. 2).

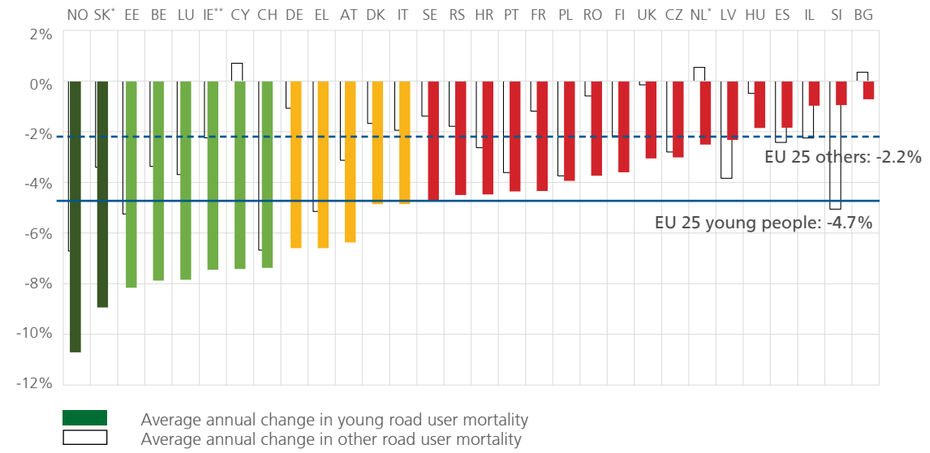


Fig. 2 The average annual change between 2010 and 2019 in road mortality among young people aged 15-30 (coloured columns) and the average annual change in road mortality between 2010 and 2019 of the rest of the population (blank columns).
EU 25 average: EU27 excluding LT and MT due to insufficient data. Annual numbers of road user in CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation. *NL and SK 15-29 year olds. **IE 2018-2019 data provisional and subject to change.

[15] The number of road deaths in Cyprus is statistically small and, therefore, subject to substantial annual fluctuation.

THE NETHERLANDS

ROAD DEATHS AMONG YOUNG PEOPLE IN THE NETHERLANDS HAVE STAGNATED

Road deaths among young people in the Netherlands have stagnated - a trend that we also see for all road deaths. The majority of young road deaths are among car drivers and car passengers. Another relatively large share is cyclists. Cycling is one of the most popular means of transport in the Netherlands and it is encouraged in relation to reducing air pollution and congestion and for improving public health. Statistics show 28% of all trips are by bicycle and on average an inhabitant rides 3.0 km per day.[16] In a recent study where road safety in the Netherlands was compared to other countries,[17] this was found as an explanation, at least in part, for the large and stable share of deaths among cyclists. With the Strategic Plan 2030 governments in the Netherlands are working on new initiatives to gradually bring down the numbers of deaths to zero by 2050.

NORWAY

TARGETED MEASURES HELPED TO REDUCE YOUNG ROAD USER DEATHS

31 young people lost their lives on the roads in Norway in 2019 compared to 73 in 2010. Norway has seen the biggest annual reduction in the road mortality of young people with a reduction of 11% on average between 2010 and 2019 (Fig. 2). Young road user mortality decreased 4 percentage points faster on average each year since 2010 than for the rest of the population (Fig. 2).

Some initiatives that may have contributed to this include updating driver education and requirements with a focus on risk assessment and understanding in 2005, introducing double penalty points for inexperienced drivers (first two years after obtaining a driving licence) in 2011 and a specific speed campaign targeting young male drivers which ran between 2014 and 2017.

FINLAND

ACTION IS NEEDED BEYOND TRADITIONAL ROAD SAFETY ACTIVITIES

59 young people were killed on Finnish roads in 2019 compared to 85 in 2010. Road mortality of young road users in Finland went down by on average 4% each year over the period 2010-2019, below the EU average of 5% (Fig. 2).

In-depth investigations in Finland show that substances (alcohol and drugs) were a factor in, on average, 45% of all young people who died in a motor vehicle and speeding (at least 20km/h above the speed limit) was a factor in, on average, 50%. On average, 47% of young people who died in a motor vehicle in Finland did not wear a seat belt or helmet.[18]

"None of these risks related to young road user safety show signs of decreasing and the Finnish system has so far been unable to tackle them sufficiently. Some of the risks reflect wider societal problems, such as social exclusion and mental health problems which suggests action is needed beyond traditional road safety activity".
Esa Räty, Finnish Crash Data Institute (OTI)

ISRAEL

MOTORCYCLE DEATHS AND MICROMOBILITY IMPACT YOUNG PEOPLE'S ROAD DEATHS

124 young people were killed on the roads in Israel in 2019 compared to 119 in 2010. Israel registered a 1% annual decrease in young road user mortality compared to 2.25% decrease for the rest of the population over the period 2010-2019 (Fig. 2).

Road mortality of young people in Israel has not improved as quickly as for the rest of the population. This may be partially attributed to an increase in mortality among young motorcycle riders between 2010 and 2019 as well as to an increase in the use of micro mobility devices, which when they were first introduced were mainly used by young people.[19]

[16] Hoeveel reisden inwoners van Nederland en hoe? https://bit.ly/39b7jPy or https://bit.ly/39gg7Dv
[17] Goede, M. de, Hermens, F., Goldenbeld, C., Bos, N., et al. (2020). De Nederlandse verkeersveiligheid in internationaal perspectief - Lessen voor beleid. R-2020-30. SWOV, Den Haag. https://bit.ly/3tJ3wSK See for a brief summary of the current knowledge in English: https://bit.ly/3nCrkqn
[18] Information provided by the PIN Panellist.
[19] Israel National Road Safety Authority (2020) Trends in road safety in Israel 2013-2019. https://bit.ly/3nXgmMk

GERMANY

ACCOMPANIED DRIVING LICENCE SCHEME CONTRIBUTED TO YOUNG ROAD USER DEATH REDUCTION

667 young people lost their lives on German roads in 2019 compared to 1128 in 2010. Over the last decade, the road mortality of young people in Germany has fallen by on average 7% each year compared to a 1% annual decrease for the rest of the population (Fig. 2).

''The faster reduction in young road user deaths followed the introduction of the two main measures aimed at reducing young people risk: the 2008 alcohol ban for novice drivers[20] and the 2011 accompanied driving licensing scheme.[21] This allows 17 year olds who have passed their theory and practical driving tests to drive under the supervision of an adult, thereby gaining driving experience in a safe environment''.
Jacqueline Lacroix, German Road Safety Council (DVR)

[20] BaST (2020) Re-evaluation of the zero tolerance law for novice drivers https://bit.ly/3z4Ekbe
[21] BaST (2011) Sicherheitswirksamkeit des Begleiteten Fahrens ab 17. Summative Evaluation https://bit.ly/3zszJyY

1.2 THE ROAD MORTALITY OF YOUNG ROAD USERS COMPARED TO THE REST OF THE POPULATION

Despite some rapid progress in reducing young road user mortality compared to the rest of the population on average in the EU, the road mortality of young people still exceeds that of the rest of the population in 29 out of the 32 PIN countries (Fig. 3). On average across the EU27, 67 young people aged 15 to 30 are killed per million young people population compared to 49 per million for the rest of the population. However, the gap is narrowing - in 2010, 103 young people aged 15 to 30 were killed per million young people population compared to 61 per million for the rest of the population.[22]

The lowest road mortality for both young people and the rest of the population is in Norway with 23 and 20 per million respectively, Switzerland with 26 and 25 per million, Sweden with 30 and 25 per million, Denmark with 36 and 31 per million and the UK with 38 and 25 per million. These countries demonstrate that relatively safe roads overall tend to also be relatively safe for young road users.[23]

In Luxembourg, young road user mortality is more than twice as high as for the rest of the population – it is 80 per million for young road users compared to 37 per million for the rest of the population. The road mortality of young road users is nearly twice as high as for the rest of the population in France with 82 for young road users and 44 for the rest of the population, as well as in Malta with 67 and 35 respectively and Slovenia with 76 and 42 respectively.

In three EU countries - Estonia, Hungary and Romania - the mortality of young people is below that of the rest of the population.

The road mortality of young people still exceeds that of the rest of the population in 29 out of the 32 PIN countries.

Fig. 3 Road mortality of young people (road deaths per million young inhabitants) with road mortality of all other ages for comparison – average of the latest three years available (2017-2019). *2016-2018. **NL and SK 15-29 year olds. ***IE 2018-2019 data provisional and subject to change

[22] ETSC (2012) A Challenging Start towards the EU 2020 Road Safety Target 6th Road Safety PIN Report https://bit.ly/3BXTKQe
[23] Twisk, Commandeur, Bos, Shope, Kok (2015) Quantifying the influence of safe road systems and legal licensing age on road mortality among young adolescents: Steps towards system thinking https://bit.ly/3zeTQAO

1.3 YOUNG MALE ROAD MORTALITY MORE THAN FOUR TIMES HIGHER THAN YOUNG FEMALE ROAD MORTALITY

Road mortality data for all young people aged 15-30 mask large disparities between men and women. On average over the last three years, men account for 81% of all road deaths among young people aged 15-30. This proportion has remained unchanged since our last PIN report in 2011.[24] Slovakia has the lowest proportion of young people killed on the road being male at 73%. Cyprus has the highest proportion with 92%.[25]

The EU average road mortality of men aged 15-30 is more than 4 times that of women of the same age (Fig. 4). On average over the last three years, 106 young men were killed on the road each year per million young male population, compared with 25 young women per million young female population.

Road mortality for both young men and young women is the lowest in Norway with 37 and 7 road deaths per million respectively, Switzerland with 42 and 10 and Sweden with 47 and 11. Road mortality for both young men and women is the highest in Bulgaria with 189 and 47 respectively.

Large differences between male and female road mortality remain after taking into consideration the fact that men drive more than women.[26]

IRELAND

RESEARCH ON FATAL COLLISIONS INDICATE DANGEROUS BEHAVIOUR, ESPECIALLY AMONG YOUNG MEN

Road mortality for young women in Ireland is low at 10 but for men it is 8 times higher, at 80. There is not a definitive explanation as to why this differs from the EU figure. However, research by Ireland's Road Safety Authority (RSA) on road deaths and alcohol found that almost 9 in 10 of those killed on the road during 2013-2017 that had a positive toxicology for alcohol were male and of these male deaths, 55% were under the age of 35.[27] In addition, RSA research on fatal collisions where excessive speed was a contributory factor found that 91% of culpable drivers were male, of which half were aged 16-24 years.[28]

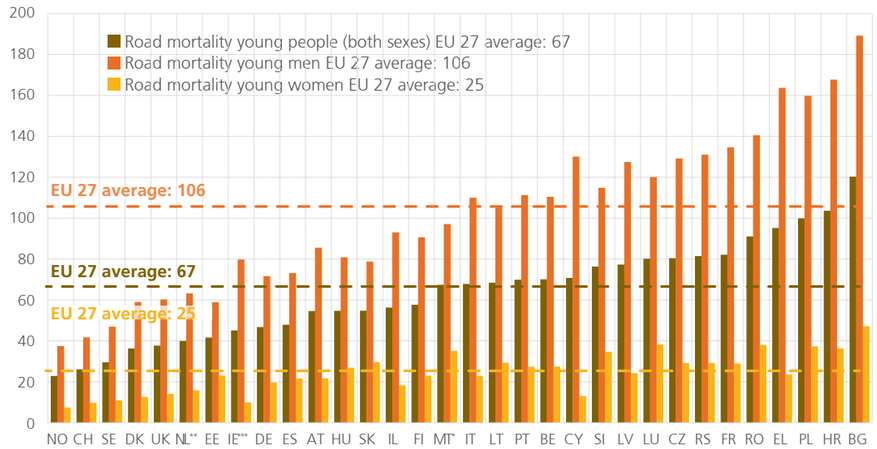


Fig. 4 Road mortality of young people (road deaths per million young inhabitants), in total and by gender – average of the latest three years available (2017-2019), ranked by the road mortality of both sexes'.*2016-2018. **NL and SK 15-29 year olds. Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are therefore subject to substantial annual fluctuation. ***IE 2018-2019 data provisional and subject to change.

[24] ETSC (2012) A Challenging Start towards the EU 2020 Road Safety Target 6th Road Safety PIN Report https://bit.ly/3BXTKQe
[25] Road death numbers in Cyprus are statistically small and therefore a matter of substantial annual fluctuation.
[26] OECD (2006) Young Drivers, The road to safety, Summary document, https://bit.ly/2URvn6s
[27] The Road Safety Authority (2020) Road Deaths and Alcohol 2013-2017 https://bit.ly/3BITcD1
[28] The Road Safety Authority (2016) Fatal Collisions 2008-2012: Excessive speed as a factor https://bit.ly/3BuTWWB

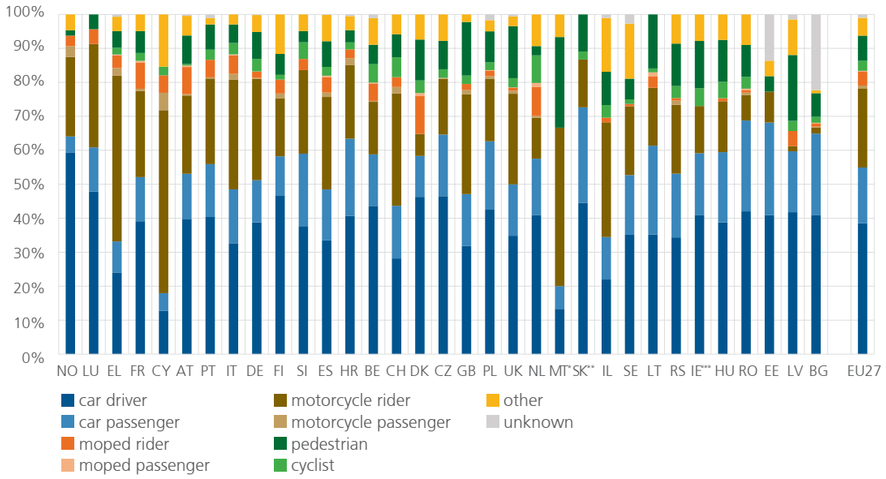
1.4 YOUNG ROAD USER DEATHS BY GENDER AND ROAD USER GROUP

1.4.1 One out of four killed young male road users are powered-two-wheeler riders

The proportions of different types of young road user groups among those killed in traffic differ by age and gender. On average across the EU, 39% of young men killed in road collisions are car drivers, 23% are motorcycle riders, 16% car passengers, 7% pedestrians, 4% moped riders and 3% cyclists (Fig. 5a). Data on distance driven by young road users in different kinds of vehicles are not available in many PIN countries. Yet, it can be assumed that the distance driven by motorcycle by young people is much lower than the distance driven in cars and young motorcycle riders are overrepresented in road death statistics.

In Norway, 59% of the young men killed in a road collision were a car driver and 23% were a motorcycle rider. In Italy, almost as many young men killed are car drivers as motorcycle riders - 33% and 32% respectively. In Cyprus, 54% of young men killed in road collisions were motorcycle riders and 13% were car drivers. In Greece 49% of young men killed were motorcycle riders and 24% car drivers.

Fig. 5a Proportion of road deaths by road user groups, among young men (aged 15-30) in the latest three years available (2017-2019). Countries ranked by proportion of car drivers, motorcycle and moped riders *2016-2018. **15-29 years. Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation. ***IE 2018-2019 data provisional and subject to change.



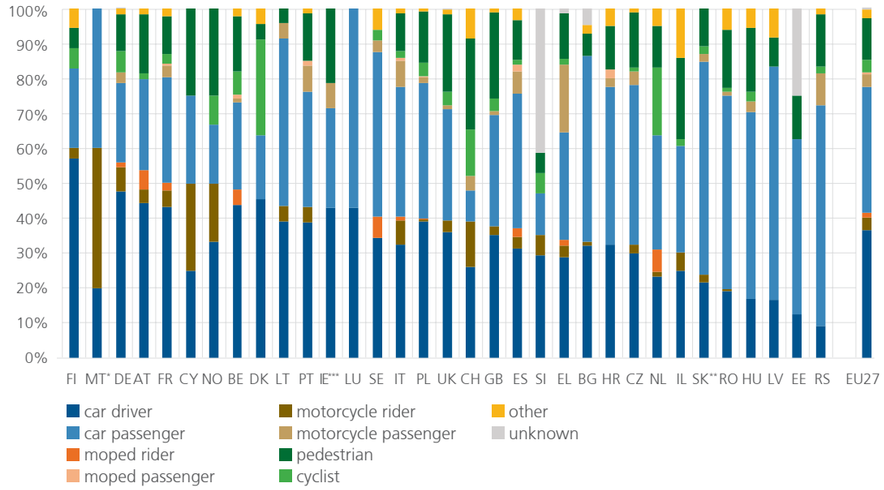
1.4.2 Seven out of ten killed young female road users are car drivers or passengers

37% of young women killed in road collisions are car drivers and 36% are car passengers – almost the same proportion. The same can be said for young women killed as motorcycle users – 4% of them are motorcycle riders and 4% are motorcycle passengers. 12% of all young women killed are pedestrians, 4% cyclists and 2% moped riders (Fig. 5b). The proportion of young women killed as a car passenger is noticeably higher than the proportion of young men killed as a car passenger - 36% compared to 16% (Fig. 5b). The proportion of young women killed as a motorcycle rider is noticeably lower than the proportion of young men killed as a motorcycle rider – 4% compared to 23%.

The highest proportion of young women killed as a car passenger is in Latvia with 67%. In Switzerland the proportion of young women killed as a car passenger is the lowest with 9%.

The proportion of young men and women killed as cyclists is similar on average across the EU with 3% and 4% respectively.

Fig. 5b Proportion of road deaths by road user groups, among young women (aged 15-30) in the latest three years available (2017-2019). Countries ranked by proportion of car drivers, motorcycle and moped riders *2016-2018. **15-29 years old. Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation. ***IE 2018-2019 data provisional and subject to change.

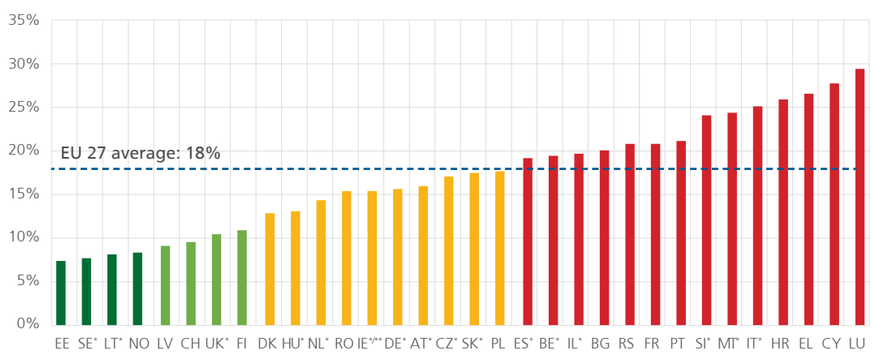


1.5 ONE YOUNG PERSON'S DEATH IN FIVE RESULTS FROM A ROAD COLLISION

Road deaths among young people aged 15 to 30 represent on average in the EU 18% of deaths from all causes in the same age group (Fig. 6).

Road deaths among young people represent the smallest proportions of all deaths among young people in Estonia with 7% and Sweden, Lithuania and Norway with 8%. The highest proportion is in Luxembourg with 29%, Cyprus with 28%, Greece with 27% and Croatia with 26%.

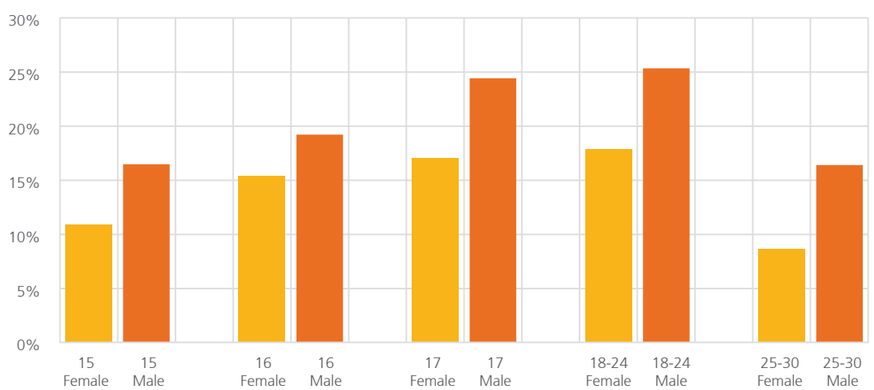
Fig. 6 Road deaths of young people aged 15-30 as a proportion of deaths from all causes for the same age group in the latest three years available (2017-2019). *2016-2018 average. *IL, NL, SK and RS only 15-29 year olds. **IE 2018-2019 data provisional and subject to change.



On average in the EU, road deaths among young male road users aged 15 represent approximately 16% of deaths from all causes for that age group (Fig. 7). This proportion increases as young male road users grow older: for 16 year olds it is 19%, for 17 year olds 24%, hitting a peak of 25% for young men aged 18-24. For young men aged 25-30, the proportion is lower once again at 16%.

The same pattern of increasing proportions can be found for road deaths among young women, although the proportions are considerably smaller (Fig. 7). For young female road users aged 15, road deaths represent 11% of deaths from all causes. As with young men the proportions rise as young female road users grow older towards 18-24: for 16 year olds it is 15%, for 17 year olds it is 17%, reaching a peak of 18% for young women aged 18-24. For women aged 25-30, the proportion is the lowest for all ages and both genders, at 9%.

Fig. 7 Road deaths in EU25, by gender and age group as a proportion of deaths from all causes for that particular age group and gender in the latest three years available (2016-2018) *deaths from all causes for France using whole country data (not just mainland). EU 25 – all EU Member States except the Netherlands and Slovakia due to insufficient data. IE 2018-2019 data provisional and subject to change.



ITALY

POWERED TWO WHEELERS WIDELY USED BY YOUNG PEOPLE

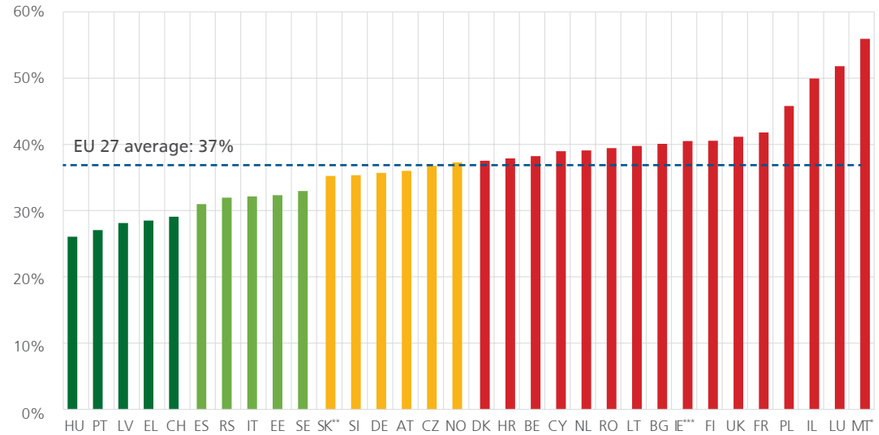
In Italy, road deaths among young people represent 25% of deaths from all causes compared to the EU average of 18%. This may be due to the wider use of powered two wheelers by young people in Italy compared to many other European countries. Since mortality on two wheels is higher than for other travel modes, consequently, there is a higher proportion of road mortality as compared to general mortality than the EU average. In Italy, 32% of young men killed on the road are motorcycle riders compared to the EU average of 24%. Additionally, the rate of mobility in Italy, i.e. the proportion of people who leave the house on an average weekday, is higher among the young and the very young at 90% compared to 85% for people aged 45-64. Private vehicles are also widely used by young people, for example, 26% of motorcycle journeys and 16% of car journeys are made by a young driver or rider.[29]

1.6 DEATHS IN COLLISIONS INVOLVING A YOUNG DRIVER OR RIDER

Collisions involving a young driver or rider in the EU account for 37% of all road deaths (Fig. 8). This proportion has remained unchanged since 2010.[30]

In Hungary, the proportion of all road deaths which involve a young driver or rider is the lowest at 26%. In Portugal it is 27%. In Malta and Luxembourg it is the highest with 56% and 52% respectively.[31] They are followed by Israel with 50%, Poland with 46% and France and the UK with 42% and 41% respectively.

Fig. 8 Road deaths in collisions involving at least one young driver or rider (in latest three years available – 2017-2019 except *2016-18 as a proportion of the total number of road deaths. Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation. **IL and SK only 15-29 year olds. ***IE 2018-2019 data provisional and subject to change.



[29] ISFORT (2019) 16° Rapporto sulla mobilità degli italiani "Audimob" https://bit.ly/3jolntt
[30] ETSC (2012) A Challenging Start towards the EU 2020 Road Safety Target 6th Road Safety PIN Report https://bit.ly/3BXTKQe
[31] Annual numbers of young road user deaths in LU and MT are statistically small and are, therefore, subject to substantial annual fluctuation.

1.7 OTHER ROAD USERS KILLED IN COLLISIONS INVOLVING A YOUNG DRIVER OR RIDER

In the EU27, young car drivers account for 24% of all the road deaths in the collisions in which they are involved, young motorcycle riders for 12% and young moped riders for 2% (Fig. 9 dark blue, dark red and brown). Among collisions involving young drivers or riders, the young drivers or riders themselves do not always constitute the largest group of road deaths. This differs among the PIN countries.

Young drivers, especially young male drivers, are not only a danger to themselves, but also to others, including their passengers. For each young driver or rider killed there are 1.6 other road users killed in the same set of collisions. It was 1.2 in 2010.[32]

In Norway, young car drivers account for 35% of all the road deaths in the collisions in which young drivers or riders are involved. This is the highest proportion of all PIN countries. The lowest proportion of all PIN countries is in Malta where young car drivers account for 9% all the road deaths in the collisions in which a young driver or rider is involved.

In Greece, 37% of all the road deaths involving a young driver or rider are young motorcycle riders. In Cyprus, 34%. These are the highest proportions of all PIN countries. The lowest proportions are in Latvia where young motorcycle riders account for 1% of all the road deaths involving a young driver or rider and in Romania and Denmark where they account for 3%.

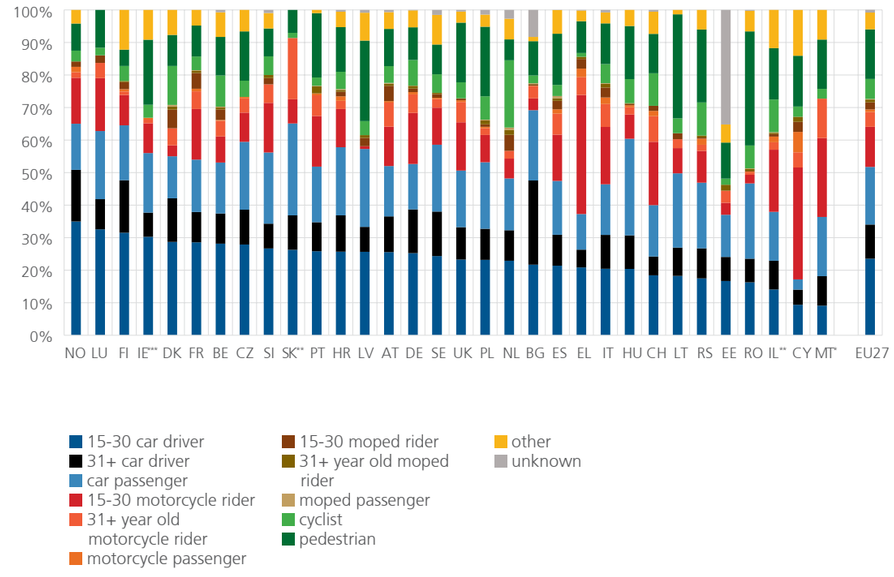


Fig. 9 Road deaths following collisions involving at least one young driver or rider ranked by the share of young car drivers killed in those collisions in the latest three years available (2017-2019 except *2016-2018). Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation. **IL and SK only 15-29 year old drivers and riders. ***IE 2018-2019 data provisional and subject to change.

[32] ETSC (2012) A Challenging Start towards the EU 2020 Road Safety Target 6th Road Safety PIN Report https://bit.ly/3BXTKQe

PART II

REDUCING SERIOUS ROAD TRAFFIC INJURIES AMONG YOUNG PEOPLE

THE INDICATOR - SERIOUS INJURIES

In 2020, the European Commission updated the estimated number of serious road traffic injuries – 120,000 people were seriously injured on EU27 roads in 2019 based on the MAIS3+ definition.[33] No updates are available, as data collection is proving difficult for most EU countries.

This move to monitor serious injury data at EU level required the adoption by all EU Member States of a common definition of what constitutes a serious road injury. The agreed definition is a hospital in-patient with an injury level of MAIS 3 or more.[34] Only a few countries have MAIS3+ data for earlier years or by road user, therefore Member States should also continue collecting data based on their previous definitions so as to be able to monitor rates of progress at least until these rates of progress can be compared with those under the new definition.

It is not possible to compare the number of seriously injured between PIN countries according to national definitions of serious injury, as both the definitions and the levels of reporting vary widely. In most of the PIN countries, serious road injuries based on the national definition are recorded by the police. Within each country a wide range of injuries are categorised by the police as serious under the applicable definition. They range from lifelong disability with severe damage to the brain or other vital parts of the body to injuries whose in-hospital treatment takes only a few days and which have no long term consequences.

National serious injury definitions supplied by PIN panellists are available in the annexes. Fourteen countries (BE, CY, DE, EE, ES, FR, EL, IE, LV, LU, PT, UK, CH, IL) use similar definitions for serious injuries: spending at least one night in hospital as an in-patient or a close variant of this. In practice, however, in most European countries, there is unfortunately no standardised communication between police and hospitals and the qualification of injuries as "serious" is often made by the police without professional medical judgement.

Sample studies have shown that the actual number of serious injuries is often considerably higher than the number officially recorded in police reports, especially for cyclists. In general, the lower the injury severity, the higher the underreporting in police statistics tends to be.

The comparison reported here takes as a starting point the average annual change in the number of seriously injured young road user since 2010 according to the national definitions of serious injuries (Fig. 10) and serious injuries among young people as a proportion of all serious road traffic injuries (Fig. 11). Doing so implies that ETSC accepts the possibility that these changes are partly due to report rate changes. However, if we may assume that report rates are independent of victim age, proportion of young among the injured might be relatively insensitive to report rates.

The number of seriously injured road users based on national definitions were supplied by the PIN panellists. Dutch data on serious injuries are based on MAIS2+ definition. Data on serious injuries for Sweden are from hospital records and were provided by the PIN panellist.

[33] For more information about the issue of serious road traffic injuries read: https://bit.ly/3nIBYvM

[34] The Maximum Abbreviated Injury Scale (MAIS) is a globally accepted and widely-used 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 in the EU.

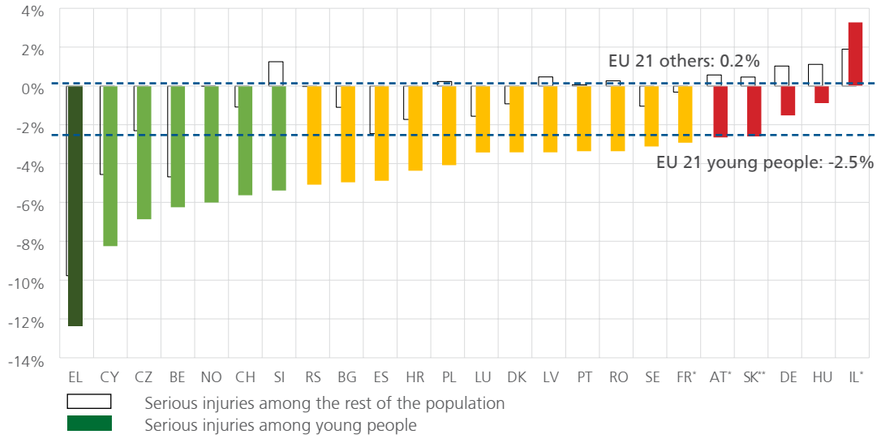
02

2.1 SLOW PROGRESS IN REDUCING SERIOUSLY INJURED AMONG YOUNG PEOPLE

In the 24 PIN countries that were able to provide data, the number of serious injuries among young people was reduced in 23 countries. (Fig. 10) Greece reported the largest average annual reduction of 12%. In Israel the number of seriously injured young people rose by 3% on average each year.

Serious injuries among young people reduced faster than for the rest of the population in 23 out of the 24 PIN countries able to provide data.

Fig. 10 Average annual change in serious injuries among young people aged 15-30 (coloured columns) and the average annual change in serious injuries among the rest of the population (blank columns) over the period 2010-2019 (or last year available) based on the national definition. * years used vary (FR 2010-2017, IL 2013-19, AT 2012-2019) **15-29 year olds EU21 average (EE, FI, IT, LT, MT, NL excluded due to insufficient data).

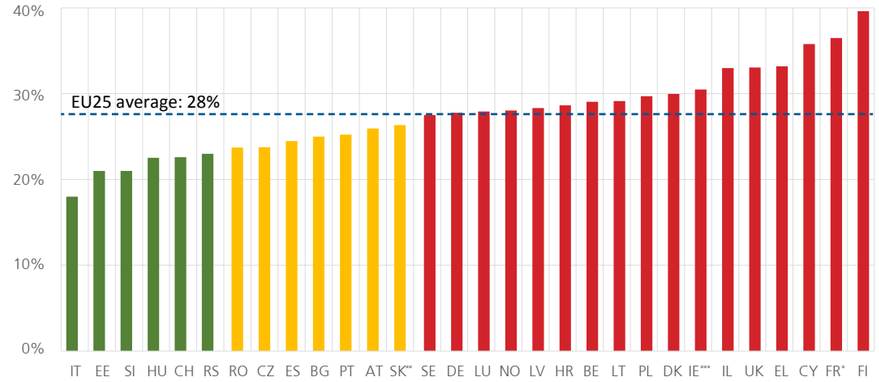


2.2 ONE IN FOUR SERIOUSLY INJURED ARE YOUNG PEOPLE

Across the 30 PIN countries that could provide data, the lowest proportion of all serious injuries that were young people is in Italy with 18% and the highest is in Finland with 40%. On average across the 25 EU Member States where data is available, serious injuries among young people represent 28% of all serious injuries (Fig. 11).

An EU funded study on serious road traffic injuries in the EU found that severely injured car occupants appear to have the following most common characteristics: two thirds were male, they were mostly younger people and the collisions where they get severely injured happened on rural roads with speed limits greater than 70 km/h and in the afternoon and during winter months.[35]

Fig. 11 Serious injuries among young people aged 15-30 as a proportion of all serious injuries based on the national definition. Average of the latest three years available 2017-2019. *FR 2015-2017 **15-29 year olds. EU25 average (MT and NL excluded due to insufficient data) ***IE 2018-2019 data provisional and subject to change.



[35] Aarts, Commandeur, Welsh, Niesen, Lerner, Thomas, Bos, Davidse (2016) Study on Serious Road Traffic Injuries in the EU https://bit.ly/3cfC87s

PART III

COUNTERMEASURES

While young people are a high-risk group in themselves, most young people do not deliberately drive unsafely.[36] The risks associated with young drivers and riders stem from inexperience, immaturity and lifestyle linked to their age and gender.[37] Young people undergo significant biological and social changes between the ages of 15 and 25. Biological research shows that, at the age of 18, areas of the human brain which are responsible for the integration of information and impulse control are still developing. Young people are not only maturing physiologically, but socially too. For example they gain more independence and their peers become increasingly important.[38] Cognitive development during puberty can lead to greater emotional instability and more assertive behaviour. Consequently, as road users, young people tend to display risky behaviours and have a diminished appreciation of the hazards that they face.[39]

But immaturity is not the only explanation for high rates of road collisions among young people. Inexperience also plays an important role. Studies suggest that the risk of a collision for someone who has just passed their driving test is 60% associated with inexperience and 40% with age-related issues.[40]

While specific targeted measures are needed to address young road user safety, overall road safety improvements also help to improve the safety of young people. Countries with relatively safe roads overall tend to have safer young road users (Fig. 4).[41] The young benefit most from road systems that are more forgiving when it comes to driver errors such as those outlined in the Safe Systems approach. To help build a safe road system that is forgiving of mistakes, investment is needed in the creation of safe roads, safe speeds, safe vehicles, safe people and post-crash care to put layers of protection around people to keep them safe from death and serious injuries on the road.[42]

[36] OECD (2006) Young Drivers, The road to safety, Summary document, https://bit.ly/2URvn6s
[37] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[38] European Commission webpage: https://bit.ly/3zoJi2d
[39] Twisk, D., Stelling, A., (2014), Young people's risky behaviour requires integral approach, SWOV, p4. https://goo.gl/Y1GjNF
[40] WOV (2014) Brain development and crash risk of young novice drivers; A literature study https://bit.ly/3yZrZ8W
[41] WOV (2014) Brain development and crash risk of young novice drivers; A literature study https://bit.ly/3yZrZ8W
[42] Toward Zero Foundation https://bit.ly/3Elbre4

GENERAL RECOMMENDATIONS TO EU AND NATIONAL GOVERNMENTS

- Achieve high levels of overall road safety. Important road safety benefits for young and novice drivers will result from measures aimed at improving overall road safety. Safer cars and safer road infrastructure will reduce the risk of driving errors resulting in fatal or serious collisions.
- Continue to upgrade and redesign transport infrastructure according to the Safe System approach and in line with the new requirements of the Road Infrastructure Safety Management Directive 2019/1936.[43]
- Achieve effective legislation and enforcement in particular against the main killers: speed, drink-driving, distraction and non-use of protective equipment (seat belts and helmets).
- Review the nature of young road user safety issues and interventions available in each country.
- Continue to invest in and encourage alternative modes of transport where possible (for example public transport with reduced ticket prices for younger people), which can be used by young people as alternatives to driving and riding, also at places and times when young people are partying.
- Understand the impact of popular media on road safety attitudes, in particular on young people's risk, including advertising, films, television and video games, and understand the impact of voluntary codes of practice for advertising. Consider introducing a ban on advertising which glorifies speed to sell cars.
- Continue to research the causes of young, novice driver risk with a view to designing more effective countermeasures. Areas of particular focus should include the psychological competencies needed to drive safely; brain development in the prefrontal cortex; gender, including the role of testosterone, and whether young women's risk patterns are increasingly resembling those of young men: emotions, drugs, fatigue.
- Undertake further research into young road user risk and its causes, including:
  - o Competencies linked to safe road use (e.g. hazard perception);
  - o The content and effectiveness of training and education;
  - o Use of powered two wheelers by young people;
  - o Work towards better standardised reporting of statistics (especially concerning riders) by Member States and monitor them.

[43] Directive (EU) 2019/1936 amending Directive 2008/96/EC on road infrastructure safety management, https://bit.ly/3zhzuaY

03

3.1 SAFER VEHICLES

3.1.1 Vehicle choice and crashworthiness

Collisions do happen and when they occur a safe vehicle can mitigate some of the consequences. Schemes such as the European New Car Assessment Programme (Euro NCAP) have increased awareness amongst consumers about safety when purchasing a vehicle and the safety of specific models. They have also helped to drive up standards of vehicle safety, far in advance of regulations.[44]

Many young people drive smaller and older cars due to issues of choice, cost and practicality.[45] Smaller cars are often favoured by young people as they are seen as easier to drive and they are cheaper. Similarly, many young people are unable to afford a new car and therefore rely on older, second-hand cars which lack more modern safety technologies. Some may be able to buy a newer, safer vehicle, but not all young people will have that option, particularly as higher insurance premiums for young people further add to the cost of driving. Young people would benefit the most from Intelligent Speed Assistance, alcohol interlocks, seat belt reminders, and other intelligent protective systems.

Some young road users will see the ability to drive or ride as more important than the ability to do so safely. However, even the safety conscious can be involved in a collision so it is important that young road users choose cars that are as safe as practicable for themselves, their passengers and other road users who might be involved.

3.1.2 Telematics

An area of technological progress relevant to young drivers is the use of telematics to monitor driving behaviour. These 'black boxes' are used to record information about high-risk behaviours, such as speeding, non-wearing of seatbelts, harsh-braking, lane changes and night-time driving.[46] This information can then be assessed and used to develop a picture of an individual driver's behaviour on the road and their crash risk. Assessment can be provided by a range of individuals and groups, such as insurance companies, instructors, parents and employers. Feedback, penalties and rewards can be issued on the basis of the information collected.

The knowledge that a telematics device is in operation can be enough on its own to improve a young person's driving, or at least to suppress high-risk behaviours. Through proper assessment and constructive feedback over time, driving behaviour can be changed.

Many insurance companies are now adopting telematics as a tool to help support and positively influence young people's driving. They also allow the companies themselves to select safer drivers. This in turn can then reduce claims expenditure. In the UK, a number of insurance providers have been marketing telematics based policies to young people since 2010. The insurance provider monitors the telematics information and offers rewards in return for safer, more responsible driving. Offering incentives, rather than penalties, encourages a positive view of safer driving and helps to make such schemes more appealing to young drivers. By providing an on-line portal, some insurance providers allow young drivers and their parents to access and review the telematics information themselves.[47] Instant alerts from telematics devices can also be used to locate and respond to collisions, in a similar way to the e-Call system.

Italy introduced legislation in 2012 to make telematics compulsory in all new cars. It has the potential to ensure that over time all cars are fully equipped for telematics. The link between telematics usage and safer driving needs to be researched further. Insurers may of course simply select less risky customers and safer young drivers may be more likely to participate in telematics schemes.

Having an efficient, well-connected and safe public transport system is a way to reduce young people's use of riskier travel modes.[48] The EU and Member States should promote the extension, quality and use of public transport.[49]

[44] Euro NCAP https://goo.gl/TgQuCh
[45] UK Department for Transport, September (2010) The Characteristics of Speed Related Collisions, Road Safety Research Report 117, p36. https://goo.gl/lyLY9D
[46] Tong, S. et al, (2015) Provision of Telematics Research, TRL (TRL755), p18. https://goo.gl/5pX7wf
[47] InsuretheBox: https://goo.gl/443yQ6
[48] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[49] ETSC (2019) Safer roads, safer cities: How to improve urban road safety in the EU https://bit.ly/3jhou7f

RECOMMENDATIONS ON SAFER VEHICLES AND TELEMATICS TO NATIONAL GOVERNMENTS

- Promote the understanding and choice of safer vehicles by young people via consumer information. Put incentives in place to make safer cars and safety technologies more accessible to young people.
- Promote the provision and take-up of telematics based insurance for young people and conduct further research on the potential safety benefits of such telematics

3.2 DRIVER TRAINING, LICENSING AND TESTING

Collision risk is highest immediately after gaining the driving licence, when young people are driving and riding independently for the first time. A UK study found that one in five young drivers reported having a collision in the first six months after passing their practical test.[50] A literature study undertaken by SWOV in the Netherlands also found that the risk of a collision is highest just after passing a test.[51]

The fundamental goal of pre-licence training and the licensing process should be to create drivers who are safe, and not just technically competent, by the time they are permitted to drive unsupervised. This will involve instilling novices with an appropriate cognitive skill level and safety-oriented motives. The primary goal of training should not be to help novices pass their driving tests. Based on existing knowledge, driving tests are currently unable to discriminate accurately between those drivers who will be safe and unsafe once they start solo driving, although they remain essential as a means of ensuring that novice drivers have essential, basic competencies.

3.2.1 Driver training

Learning to drive requires a lot of practice before an expert level can be reached. Drivers make choices such as how fast they are driving, their distance from others and their position on the road. These choices include safety margins which are well developed in experienced drivers. Novice drivers however tend to underestimate the complexity of traffic situations while at the same time overestimating their level of skill.

By the time drivers pass their test, they will have a basic knowledge of vehicle control but will lack the on-the-road experience needed to build up the knowledge of different driving situations and environments.

Studies show that, overall, hazard perception training has a positive effect on safety. Most studies show that hazard perception training leads to enhanced hazard perception abilities, as well as reduced collision rates and lower driving speeds.[52] One case study often cited is from the state of Queensland in Australia. Here, candidates applying for a graduated driving licence need to take a separate hazard perception test. Passing the test means a candidate is allowed to drive without any restrictions, however if the test is failed, the candidate must continue to drive with restrictions for another year. Despite the restrictions, collision risk during that extra year is 25% higher for candidates who failed the hazard perception test than for those that passed.[53]

Collision risk is highest immediately after gaining the licence, when young people are driving and riding independently for the first time.

The driving task will change extensively in the coming decades with increased vehicle automation and interconnectivity between vehicles having a profound effect on the role of the driver and possibly other road users. Technological improvements, while improving safety, are gradually altering the driving task. As technological improvements alter the driving and riding task, so too will the way in which drivers and riders are trained and prepared. Managing and utilising the various in-car technologies will become a greater part of the driving task. Driver and rider training must be expanded to incorporate these additional skills and new technologies.

According to a UK employer survey, young at-work drivers undertake a wide range of journeys, in many different types of vehicles; but very few drive their own car for work purposes.[54] This means that young at-work drivers are often required to drive vehicles that they were not trained or tested to drive when they were learning, and to drive these vehicles in situations that their learner driver training, and the driving test, did not include. For example, driving a light van on a delivery route. Few, if any, young drivers will have learnt to drive, or taken their test, in a van. And driving a delivery route requires skills (navigation, route planning, regular stops, time schedule pressures) that are not included in learner driver training. The survey also found that more than two-thirds of young employees are driving vehicles for work that are larger than a car, and in which they were not trained or tested when learning to drive.[55] Over half (53%) of young people were specifically responsible for driving a transit van. The same report[56] cites a review of police reports of over 2,000 work-related road collisions that found that the number of collisions involving vans and pickups peaked when drivers were aged between 21 and 25 years. No other category of vehicle peaked in collision frequency for this age group. Some employers specifically train young and novice drivers to make the transition from driving a car to a van and other vehicle types as part of their induction.

For more information about managing young drivers at work read ETSC's (2015) PRAISE Report on this topic available here: https://etsc.eu/managing-young-drivers-at-work/

3.2.2 Minimum ages for obtaining a driving licence

The younger a person starts unrestricted solo driving, the more likely it is that they will have a fatal collision, particularly below the age of 18. Thus, as a first step, it is extremely important to set an appropriate age for first unrestricted solo driving.[57] Raising, or not lowering, the minimum age for solo driving, will save lives, by virtue of the fact that it prevents young and inexperienced drivers from solo driving until they are older.[58] Conditions for driving motorised two-wheeled vehicles should be similarly stringent to prevent migration to less safe forms of transport.[59]

Minimum ages for obtaining different categories of driving licence are set in the EU Driving Licence Directive[60] but there is also some flexibility (see background tables on minimum ages in all PIN countries). For example, it is recommended by the Directive that the minimum age for obtaining the driving licence for AM category[61] is 16, but in Estonia, France, Hungary, Italy, Latvia and Poland an AM category licence can be obtained at 14 years old. Across the EU only a theoretical test was made mandatory for AM riders following the implementation of the Directive while training remained optional.[62] High quality training is crucial for safe motorcycling. Some core skills such as personal attitudes, risk awareness, self-awareness, dealing with risks such as distraction, peer pressure and impaired driving are difficult to test, especially in a theoretical exam only. Several studies have highlighted the importance of training these skills.[63]

For the category B[64] driving licence, the recommended minimum age in the Directive is 18, but some countries grant category B licences from age 17. Austria, Denmark, Hungary, Ireland, the UK and Serbia have all set the minimum age for category B licence at 17 years of age (see background tables). In the Netherlands and Switzerland accompanied driving is permitted from 17 years of age. In Sweden accompanied driving is permitted

[50] Wells P et al, (2008) Cohort II: A Study of Learner and New Drivers. Volume 1: Main Report, Road Safety Research Report No. 81. UK Department for Transport, https://goo.gl/cj2L7Q
[51] SWOV (2014) Brain development and crash risk of young novice drivers; A literature study https://bit.ly/3yZrZ8W
[52] Katrakazas, C. (2017), Education – Hazard perception training, European Road Safety Decision Support System, developed by the H2020 project SafetyCube. Retrieved from www.roadsafety-dss.eu on 02062021
[53] Horswill, Hill, Wetton (2015) Can a video-based hazard perception test used for driver licensing predict crash involvement? https://bit.ly/3yWxEws
[54] RoSPA (2009) Young Drivers at Work https://bit.ly/3obWqWu
[55] RoSPA (2009) Young Drivers at Work https://bit.ly/3obWqWu
[56] Ibid
[57] OECD (2006) Young Drivers, The road to safety, Summary document, https://bit.ly/2URvn6s
[58] OECD (2015), Improving Safety for Motorcycle, Scooter and Moped Riders, https://goo.gl/kAwsjq
[59] Ibid
[60] EU Directive 2006/126/EC on Driving Licences https://bit.ly/3a4GgGE
[61] Moped - two-wheel vehicles or three-wheel vehicles with a maximum design speed over 25km/h and not more than 45km/h; Light quadricycle with an unladen mass of not more than 350kg, not including the mass of the batteries in case of electric vehicles, whose maximum design speed is over 25km/h and not more than 45km/h.
[62] European Commission (2013) New European driving licence for more security, safety and free movement https://bit.ly/2YQGDS2
[63] OECD (2006), Young Drivers – The Road to Safety, OECD, pp.75-76. https://goo.gl/dHJJRj
[64] Passenger vehicles weighing up to 3,500 kg and seating not more than eight passengers.

from 16 years of age although a number of requirements, such as training for both the 16 year old and the person accompanying, must be fulfilled beforehand. In Finland a new law was introduced in 2018 which made it possible for 17 year olds to obtain a category B licence if they have a special need to drive (although in practice the approval rate has been very high). In Israel the minimum age is 16 years and 9 months.

For category C and D driving licences[65] few PIN countries diverge from the minimum ages proposed in the EU Directive (21 and 24 years old). When minimum ages are lowered, countries most often do so in the context of an apprenticeship and/or Certificate of Professional Competence (see background tables). Other restrictions may also apply such as being limited to drive within the home country (as is the case in Germany[66] for example while doing a professional driver apprenticeship).

ETSC is firmly against any lowering of the minimum age for any type of road user. Data among young truck drivers show a higher risk rate.[67] In a study among truck drivers in New Zealand, the most self-reported crashes and the most self-reported violations were from the youngest truck drivers.[68]

The main causes of collisions in young car drivers - poor hazard detection, inattention/distraction, driving too fast for the circumstances, deliberate risk taking in order to alleviate boredom or to impress friends[69] – must also be managed among young commercial drivers.

DENMARK

PILOT SCHEME ALLOWS 17 YEAR OLDS TO OBTAIN CATEGORY B LICENCE

In 2017, Denmark launched a pilot scheme, allowing 17-year-olds to obtain a category B licence and engage in post-licence accompanied driving until solo driving at the age of 18. This pilot scheme was evaluated in 2020. Approximately 40% of Danish 17-year olds gain their licence at 17. The total share of people below the age of 19 with a driving licence did not increase, but the share of people choosing to obtain their licence at 17 did.

Between 2017-2019, 88 17 year old licensed drivers were involved in a collision (< 0.5% of all 17 year old licence holders). None of the collisions was fatal and in the majority of the collisions, alcohol, drugs or speeding was not a factor. In-depth analyses are needed, but results indicate that the inability to predict the development of the traffic situation could be a contributing factor.

Overall, the evaluation found that the Danish pilot scheme with accompanied driving was well received by the population. An increasing proportion of 17-year-olds choose to obtain their licence and user experiences are predominantly positive. However, future studies which would allow for a more detailed understanding of the associations between accompanied driving, the development of driving skills and crash involvement would be useful.[70]

3.2.3 Graduated Driving Licences

Graduated Driving Licences (GDL) normally have three parts – the learner phase, the intermediate phase and the beginner's licence phase. They are primarily used to address young drivers' inexperience, but they also serve to address risk-taking behaviour which can result from age-related factors.[71]

a) Pre-licensing phase

During this phase, drivers begin the process of learning how to drive, which can feature both professional tuition and private practice with family and friends. Once ready, they can take the necessary tests.

Certain conditions may apply during this period:

- A minimum or specific period before a learner can take the practical test (e.g. 1 year).
- A minimum number of lessons/hours with a qualified driving instructor.
- A minimum number of hours of practice (with an experienced driver e.g. instructor/family/friends).
- Practice in specific conditions (e.g. night-time, wet roads, urban areas, motorways).

Learners can be encouraged or required to keep track of training hours by using a log-book system

b) Probationary phase

Upon passing the required tests, independent driving is permitted. For a fixed period, certain restrictions can apply:

- A night-time driving curfew between set hours (e.g. between 9pm and 6am).
- A ban on driving with more than one peer-age passenger (e.g. between 15-24 years of age).[72]
- A reduced or zero BAC limit (0.2g/l mg is common).[73]
- A stricter demerit system.

The more restrictions that are implemented, the greater the effect as multiple areas of collision risk are targeted.[74] Exemptions are permissible to ensure that young people are not denied access to employment and educational opportunities.

c) Full licence phase

Once the probationary period has been completed the road user is allowed to drive unrestricted. Some temporary restrictions may be continued during this stage, such as a lower BAC limit for the first one or two years and a stricter demerit point system.

GDL systems can be adapted to fit existing licensing systems. Many jurisdictions choose to introduce individual components incrementally. Overall effectiveness depends on the number of components included and the extent to which these are properly enforced.

Stronger systems are those that have a combination of minimum learning periods and probationary phase restrictions. The longer the minimum learning periods and the more restrictions in the probationary period, the more effective the system has been shown to be.[75]

GDL systems have been assessed by a number of studies, which nearly all show a reduction in collisions.[76] However, given the variation between individual GDL systems, it is difficult to accurately judge the average effectiveness of a GDL system.

TRL undertook a study in 2014, updated in 2018, to model the potential casualty and collision reductions of different graduated driving licence systems. The updated study found that, were a full graduated driving licence system to be introduced across Britain, it could mean 2733 fewer people injured each year including 281 fewer people killed or seriously injured.[77]

Of the PIN countries able to provide data for this report, only 6 reported having a graduated or multiphase driving licence. However, the majority do impose a probationary period on novice drivers, similar to the intermediate or beginner's licence phase (see Table 1). On the whole, probationary periods for novice drivers are between 2-3 years. In the Netherlands, the probationary period is 5 years. In Poland, it is 1 year.

Table 1. Countries with a graduated or multiphase driving licence and/or a probationary period for novice drivers.

Graduated or multiphase driving licence	Probationary period
AT, BE, DK, EE, IE, IL	AT, BE, BG, CH, DE, DK, ES, FI, FR, HU, IE, IL, IT, LV, NL, PT, RO, RS, SE, SI, SK, UK

[65] Category C - goods vehicles weighing more than 3,500 kg and seating not more than eight passengers; Category D - passenger vehicles for more than eight passengers
[66] Verordnung über die Zulassung von Personen zum Straßenverkehr https://bit.ly/39uGwxB
[67] Cantor et al (2010) A driver focused truck crash prediction model https://bit.ly/2XYMrIG
[68] Sullman et al (2002) Aberrant driving behaviours amongst New Zealand truck drivers https://bit.ly/3AN2bx7
[69] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[70] Møller, Krogh Andersen, Bonde, Hjorth, Janstrup, Jensen (2020) Evaluering af forsøgsordning med kørekort til 17-årige https://bit.ly/34JkEMI
[71] ECD (2006), Young drivers, The road to safety. https://bit.ly/3id82W5
[72] One peer-age passenger could be allowed to allow designated driving.
[73] European Commission (2018) Novice Drivers https://bit.ly/3vQwLCO
[74] Kinnear, N. et al., (2013) Novice Drivers: Evidence Review and Evaluation – Pre-driver education and training, Graduated Driver Licensing and the New Drivers Act, p58. https://goo.gl/Shq3Sv
[75] Ibid p15.
[76] Ibid p46.
[77] Makwana (2018) The modelled impact of a range of GDL schemes. An update of the 2014 TRL report https://bit.ly/3nUquUh

During the probationary period, various restrictions are placed on novice drivers such as lower speed limits, harsher consequences for offences and lower or zero BAC limits (Table 2). In Israel and Serbia there is also a restriction on the number of passengers that can be carried during the probationary period. Italy and Serbia also have a limit on the power of vehicles that can be driven by novice drivers.

Table 2. Countries imposing the three most common restrictions on novice drivers during the probationary period. *HR and PL do not have a probationary period but place certain restrictions on novice drivers

Restrictions during probationary period	Countries
Lower speed limits	FR, IT, RO, RS
Lower or zero BAC limit	AT, CH, DE, FR, HR*, IE, IL, IT, LV, NL, PT, SI, RS
Harsher consequences for offences	AT, BE, BG, CH, DK, EE, ES, FI, HR*, IE, IT, LV, NL, PL*, PT, SE, SI, UK

AUSTRIA

YOUNG DRIVER INVOLVEMENT IN COLLISIONS DOWN BY A THIRD AFTER THE INTRODUCTION OF A MULTI-PHASE TRAINING SYSTEM

Austria incorporates comprehensive post-licence training as part of a multi-phase training system. Once learners have passed their theory and practical tests, they enter a probationary period of three years. During the first year they must return on three occasions for further driving education - two 'feedback' driving sessions in real traffic, with a professional trainer and one day of track-based safety training and psychological education. Analysis of this system showed that the involvement of young drivers in collisions decreased by about a third when looking at the first, second and third year after they acquired their licence compared to novice drivers before the system was introduced.[78]

ISRAEL

15% FEWER YOUNG PEOPLE INJURY COLLISIONS AFTER ADOPTION OF REVISED GRADUATED DRIVING LICENCE SYSTEM

Israel has had a Graduated Driver Licence (GDL) since the late 1990's. Since 2013 the Israeli GDL programme consist of a 6-month post-licensing supervised driving phase, during which young-novice drivers are obliged to drive with an experienced driver for at least 50 hours. In addition, there are restrictions on night driving and the maximum number of passengers a new driver is allowed to transport.

In 2019, the National Road Safety Authority conducted a study to determine the safety impacts of the Israeli GDL program and the extent to which it is applied in the country.

The study found a significant reduction of 15% in young driver injury collisions after the changes in the GDL's law went into effect, statistically controlling for differences between the two periods. The largest decrease of 23% was found in young drivers' involvement in night-time collisions. The survey found that both parents and young drivers are very supportive of the GDL model and complied well with the requirements of the law. Nevertheless, based on the survey data, it is estimated that most youngsters do not reach the minimum number of supervised driving hours required by the law. The study also provided useful insights into the difficulties experienced by parents and young people during the period of supervised driving such as finding enough time for driving under supervision, a lack of parental knowledge about the driving skills needed to practice with their child as well as reports about conflicts and negative interactions between parents and teenagers during the accompanying period.

[78] For the Austrian L17 model (full driving school education, then accompanied driving with a minimum of 3000kms, then full solo B licence from 17), the first feedback driving session is omitted.

SWITZERLAND

7% FEWER COLLISIONS CAUSED BY YOUNG DRIVERS ATTRIBUTED TO PROBATIONARY PERIOD RESTRICTIONS

In 2005 Switzerland introduced two-phase driver training that consists of a provisional driving licence with a three-year probationary period for new drivers. The express aim was to reduce the high collision rate among novice drivers. A collision analysis and accompanying survey were carried out to look at the effect of the measure in 2013. The analysis found that young new drivers in the probationary period caused 7% fewer collisions than would have been expected based on the general road safety trend. The accompanying survey data also demonstrated positive effects on the behaviour of new drivers. Overall, the two-phase driver training was seen as making a valuable contribution to road safety.[79]

[79] Cavegn, Walter, Scaramuzza, Amstad, Ewert, Bochud (2013) Evaluation of the two-phase (driver)training https://bit.ly/2T7Luf0

RECOMMENDATIONS ON DRIVER TRAINING, LICENSING SYSTEMS AND TESTING TO NATIONAL GOVERNMENTS

- Encourage higher levels of accompanied driving while novice drivers are learning and gaining experience.
- Establish a hazard perception test. Incorporate higher level Goals for Driver Education (GDE) components into testing.
- Implement those aspects of Graduated Driver Licensing that would most benefit young driver safety in the particular country.
- Expand training to incorporate additional skills and new technologies, e.g. motorway driving, driving with navigational devices.
- Ensure that the driving and motorcycle tests remain valid for new technologies.
- Encourage communication between instructors and accompanying drivers to maximise the benefit of informal practice (e.g. a joint lesson/logbook).
- Ensure that suitable, post-licence training programmes are available for those who wish to continue learning.
- Seek improvements to formal training processes: expand the traditional method of skills-based instruction; ensure that professional driving instructors have the knowledge and pedagogical skills necessary to guide and assist the candidate towards becoming a safe driver.
- Engage parents and other role models, i.e. proactively inform parents about the degree of risk associated with their children's first driving experience, reinforcing the message that their behaviour will have an important impact on their children's future driving and safety.
- Introduce probationary licences for novice drivers and riders.
- Where these do not exist, introduce stricter demerit systems during a probationary period for newly licensed drivers with penalties such as loss of licence or mandatory traffic risk awareness training.
- Support the further incorporation of road safety into mainstream education.

RECOMMENDATIONS TO EU INSTITUTIONS IN THE FRAMEWORK OF THE UPCOMING REVISION OF THE DRIVING LICENCE DIRECTIVE

- Encourage Member States to introduce Graduated Driving Licence systems to address the high risks faced by new drivers and riders thus allowing them to gain initial driving experience under lower-risk conditions between gaining the learner permit and fully licensed status.
- Introduce probationary periods for novice drivers. Under any system, young, novice drivers should be subject to limits on driving with peer passengers and/or at night as well as to a zero tolerance for drink-driving.
- Do not allow the lowering of the minimum age for obtaining a driving licence for any road users.
- Encourage Member States to introduce special demerit point systems which make novice drivers subject to penalties (e.g. loss of licence) or rehabilitative measures (e.g. mandatory traffic risk awareness training) if they lose a certain number of points.
- Develop minimum standards (beyond Annex V include Goals for Driver Education (GDE) Matrix) for driver training and traffic safety education with gradual alignment in the form, content and outcomes of driving courses across the EU.
- Ensure all new drivers are trained in using the new technologies as well as in a second phase semi and fully automated driving and hybrid and electric vehicles.
- Harmonise minimum standards for driving trainers including periodic training, hazard perception training, stricter minimum education and communication skills.

RECOMMENDATIONS TO EU INSTITUTIONS ON THE CONTENT OF DRIVER TRAINING AND TESTING

- Further harmonise minimum standards for driving examiners including periodic training, hazard perception training, stricter minimum education and communication skills.
- Training and testing should also address the skills and attitudes associated with safe road use, such as hazard perception.
- Develop a European syllabus for first aid training, including guidance for the training of the trainers.
- Include in driver training how to behave if an emergency vehicle approaching and what to do at the site of a collision.
- Ensure testing allows examiners to ascertain a safe driving style by including aspects such as independent driving.
- Include training of interaction with vulnerable road users and in risks of distraction as part of the syllabus of training of all drivers.
- Introduce a new specific module, offered within the context of initial driver training, that covers 'driving for work'.
- Examine expanding post-licence continuous training for non-professional drivers.
- Support integrating road safety into youth and education policy giving this a high priority.

Road safety education at schools

European countries have committed to providing traffic safety and mobility education, notably in schools at all levels. However, ETSC has previously shown that the provision of such education differs widely across Europe, with most countries not following through on their commitments.[80]

While road safety education is provided to children in primary education all over Europe, it is general only sparsely addressed in secondary education, and, with a few exceptions, not at all in tertiary education. This while traffic mortality increases steeply after 13 years of age, and this report shows that young road users are overrepresented in road mortality figures.

The LEARN! Key Principles report sets out 17 recommendations that should be implemented in all European countries in order to ensure that everyone – especially children and youngsters – receives high quality traffic safety and mobility education.

https://www.trafficsafetyeducation.eu/key-principles/

ESTONIA

AWARENESS CAMPAIGNS AND ROAD SAFETY EDUCATION ACTIVITIES

Road safety educational programmes and awareness campaigns in Estonia have been running for a very long time (some since the late 90s) and they are carried out systematically every year. In addition, their effectiveness is regularly assessed and changes are made where necessary. Lifelong learning also plays a role – road safety education is integrated into the curricula from preschool to upper secondary school and there are also risk courses for adults and driving and road safety programmes for senior road users.[81]

'Georg and Kaspar' is a road safety programme aimed at secondary school students focussing on risky behaviours: driving under the influence, overestimating skills and underestimating danger, protective equipment and the need to 'stand out from the crowd'. A second programme, also aimed at secondary school students, is 'Clear View'. It has been operational since 2012 and focuses on drink driving and speeding.[82]

[80] ETSC (2019), The Status of Traffic Safety and Mobility Education in Europe. http://bit.ly/LearnStatus
[81] Traffic Education webpage https://bit.ly/2Y6TTlb
[82] https://bit.ly/3sYZWUr (Estonian)

3.3 ALCOHOL, DRUGS AND DISTRACTION

3.3.1 Alcohol

Young people, especially men, are over-represented when it comes to road deaths linked to drink-driving and drugs.[83] Enforcing and tightening limits can therefore help reduce these deaths.

Drink-driving is particularly dangerous for young people for several reasons:[84]

- Their tolerance of alcohol is lower, as their body is not used to dealing with it.
- Driving is more demanding for young and novice drivers than for other drivers; thus, as they need to pay more attention to their driving task, the disrupting effect of alcohol is greater than for drivers with more experience.
- Alcohol reduces inhibition. As young people possess less developed self-control mechanisms, they suffer a stronger euphoric and emotional impact from alcohol.
- Studies have shown that young people tend to underestimate their actual level of intoxication.

The EU DRUID Project found that the characteristics of drivers who tested positive for alcohol and were seriously injured or killed, were that testing positive for alcohol was most prevalent in young drivers (25-35 years) and more prevalent in male than in female drivers (about 70/30 in seriously injured and 83/17 in the killed drivers).[85]

From the PIN countries that were able to provide data on whether killed young car drivers aged 18-30 had an alcohol level above the legal BAC limit, we can see that alcohol remains a problem among young drivers in most countries.

While numbers in countries such as Czechia, Cyprus, Slovenia and Switzerland are statistically small and therefore liable to present stark proportions, larger countries such as the UK and France still find high numbers of killed young car drivers having an alcohol level above the legal limit.

In the UK, between 2016-2018, 26% of young car drivers killed out of the total that were tested for alcohol were recorded as having an alcohol level above the legal limit of 0.8 g/l. However, it increases to 37% if those with an alcohol level below the legal BAC limit are taken into account (Table 3).

In France, in 2019, 48% of killed car drivers aged 18-30, out of all those tested for alcohol, were recorded as having an alcohol limit above the legal limit. In Finland, between 2017-2019, 44% of all killed young car drivers that were tested for alcohol were recorded as having an alcohol level over the legal limit (Table 3).

Young people, especially men, are over-represented when it comes to road deaths linked to drink-driving and drugs.

[83] EMCDDA, (2012) Driving Under the Influence of Drugs, Alcohol and Medicines in Europe — findings from the DRUID project, p. 19. https://goo.gl/PNhUpU
[84] SafetyNet (2009) Alcohol https://bit.ly/3AgHFEl
[85] EU funded DRUID Project (2012) Driving under the Influence of Drugs, Alcohol and Medicines https://goo.gl/PNhUpU

Table 3. Number of killed young car drivers (18-30) tested for alcohol, for whom it was recorded they had alcohol (latest three years available).
IE: *28 of the 29 18-30 year old car driver deaths with a positive toxicology for alcohol had a BAC >50mg/ml. Please note however that we have a lower BAC limit for provisional, novice and professional drivers (>20mg/ml) which is not incorporated in this figure.
HR**young drivers are defined in the law as drivers up to 24 years old with a valid driving licence. For them the legal BAC is 0.0 and for the rest it is 0.5g/l.

	Of recorded killed young (18 to 30) car drivers tested for alcohol			
	% over the legal BAC	% that had non-zero BAC	Time period covered	Lower BAC for provisional/novice drivers? (in g/l)
BG	3%	6%	2019	NO
BE	6%	6%	2018-2020	NO
CY	25%	25%	2018-2020	YES (0.2)
CZ	22%	22%	2019-2020	Zero for all
DK	21%	21%	2015-2019	NO
EE	0%	40%	2020	NO
FI	44%	46%	2017-2019	NO
FR	48%	n/a	2019	YES (0.2)
EL	43%	n/a	2017-2018	YES (0.2)
HR**		39%	2018-2020	YES (0)
HU	22%	22%	2017-2019	Zero for all
IE*	53%	55%	2015-2017	YES (0.2)
PL	7%	8%	2018-2020	NO
PT	90%	100%	2017-2019	YES (0.2)
SE	28%	28%	2017-2019	NO
SI	48%	57%	2018-2020	YES (0)
SK	49%	49%	2017-2020	Zero for all
UK	26%	37%	2016-2018	NO
CH	40%	40%	2019	YES (0.1)
NO	18%	18%	2019	NO
RS	100%	100%	2017-2019	YES (0)

FINLAND

ALCOHOL NOT THE ONLY FACTOR IN YOUNG DRINK-DRIVING DEATHS

In-depth investigations in Finland show that other risk factors also play a role in drink-driving deaths among young people. Between 2017 and 2019, of the 37 killed young car drivers that had an alcohol level over the legal limit (see table 3), 13 young drivers had at least one previous drink-driving offence (information unavailable for 7 drivers) and 27 young drivers had a BAC of at least 1.2g/l while the legal limit is 0.5g/l. In addition to being intoxicated, 28 young drivers exceeded the speed limit by at least 20 km/h, 28 drivers did not wear a seat belt and 7 drivers were under the influence of drugs and/or medicines, in addition to alcohol.[86]

[86] OTI register of in-depth investigated accidents (no open access) https://bit.ly/2WbxOkn

CZECHIA

CZECH DRINK DRIVING CAMPAIGN FOCUSSING ON YOUNG PEOPLE

Czechia recently ran a drink-driving campaign, 'Don't be influenced', which focussed on young drivers (15–25 years).[87] The main aims of the project were to raise awareness among young people of the consequences of driving under the influence of alcohol or drugs, to encourage young drivers to make arrangements in advance of going out, to motivate young drivers to never let their friends drive under the influence of alcohol or drugs and finally, to make it socially unacceptable among young people to drive while under the influence of alcohol or drugs.

POLAND

SUSTAINED FOCUS ON DRINK-DRIVING CAMPAIGNS SINCE 2015

Poland has run 4 drink-driving campaigns since 2015. 'Alcohol and car keys? Out of question!'[88] encouraged people to stop other people from drink-driving; 'Alcohol on the road kills' responded to research carried out among young people which found that most of the young respondents said it was possible to drive after consuming alcohol in certain specific circumstances; 'Keep a Sober Mind'[89] focuses on addiction prevention in general; and 'Against drunk drivers'[90] was specifically set up during the Corona pandemic in response to the view among some drivers that the police are occupied with the pandemic and not enforcing drink-driving rules.

3.3.1.1 Lower BAC limits for novice drivers

Alcohol has a major influence on the skills needed for safe driving and attention and inexperienced drivers are particularly sensitive to its effects.[91] In a study conducted recently by VIAS into the impact of 0.2 and 0.5 g/l BAC on driving among young/novice drivers, it was confirmed that alcohol (0.5 g/l BAC) and driving inexperience (18 year old novice drivers) lead to a greater deterioration of driving skills, particularly for maintaining track position and detecting visual stimuli, as compared to 21 year old more experienced drivers.[92]

The European Commission recommends lowering the BAC limit for novice drivers to 0.2 g/l.[93] And yet, Belgium, Bulgaria, Denmark and Finland have a 0.5 g/l limit and Spain a 0.3 g/l[94] limit.[95] In the UK the general BAC limit is 0.8 g/l.[96]

Spain has plans to implement the WHO figure of 0.2 grams/litre of blood, or 0.1 milligram/litre of exhaled air, for both novice and professional drivers. This change will be implemented through the development of the Spanish Road Safety Strategy 2021-30.

GERMANY

NOVICE DRIVER ZERO TOLERANCE LAW IMPACT FELT THROUGHOUT DRIVERS' CAREERS

Germany introduced a zero tolerance law on alcohol for novice drivers in 2007. This law prohibits alcohol for all novice drivers during the probation period of (normally) two years as well as persons who are not yet 21 years old. An evaluation carried out in 2010 showed a significant decrease in alcohol-related collisions and traffic offences as well as a high acceptance of the law among the target group. A further evaluation published in 2020 sought to evaluate the longer-term effect of the zero tolerance law, in particular whether the behaviour (separating drinking and driving) was maintained throughout a driver's career. According to the results of this evaluation, former novice drivers from the first cohort affected by the zero tolerance law were also, in the long-term, less frequently involved in alcohol-related collisions than reference groups. Furthermore, the number of driving under the influence offences for the former novice drivers declined disproportionately compared to older and more experienced drivers in the considered period.[97]

[87] https://ibesip.cz/Akce-a-kampane/Kampane/NENECH-SE-OVLIVNIT
[88] https://www.youtube.com/watch?v=vmWFJ3trzW8
[89] https://trzezwyumysl.pl/zachowaj-trzezwy-umysl-2021/
[90] http://przeciwpijanymkierowcom.pl/ and http://www.akademiaprofilaktyki.pl/wp-content/uploads/2021/07/PRZECIW-PIJANYM-KIEROWCOM-oferta-lipiec-2021.pdf
[91] Dupont, E., Martensen, H., & Silverans, P. (2010) Abaissement du taux d'alcool autorisé pour les conducteurs novices et les conducteurs de grands véhicules: 0,2‰. IBSR, l'Observatoire pour la Sécurité Routière, Bruxelles, Belgique. [Lowering the permitted alcohol level for novice drivers and drivers of large vehicles: 0,2‰. BRSI, Road Safety Observatory, Brussels, Belgium] Retrieved https://bit.ly/3ci8P4p
[92] VIAS (2019) Research report no.2019 - R - 03 – SEN Impact of alcohol on driving in young/novice Drivers A driving simulator study on the impact of a blood alcohol concentration of 0,2 g/l and 0,5 g/l on driving behaviour. https://bit.ly/2QW0fk4
[93] European Commission Recommendation (2001) on the maximum permitted blood alcohol content (BAC) for drivers of motorised vehicles. https://bit.ly/3b6iH0x
[94] Spain's BAC limit for novice drivers (0,3g/L) is lower than the national general limit 0,5g/l.
[95] ETSC (2019) Blood Alcohol Content (BAC) Drink Driving Limits across Europe https://bit.ly/33kZEv2
[96] Scotland BAC limit is 0.5g/l.

3.3.2 Drugs

Drug driving is not as well understood a phenomenon as drink-driving and lacks the benefit of widespread public awareness. Illegal drug use increases with age between the ages of 15-25. Illegal drug use among young people is double that among adults.[98] It is known that young people, especially men and those with sensation seeking and risky behavioural traits are more likely to drug drive.[99] However, with a combination of legislation, enforcement and screening devices drug driving can be addressed.

Roadside testing is a means of identifying drug drivers and is currently used by Belgium, Bulgaria, Cyprus, Finland, France, Germany, Norway, Denmark, Spain and Switzerland. In 2015 the UK introduced new regulations for roadside testing, establishing drug limits and a zero tolerance approach to the eight drugs most associated with illegal use.[100] Combined with the use of drug-screening devices, within six months drug driving arrests increased by 600%.[101] This large increase is to be expected, as the regulations are new, and effectiveness will need to be monitored in the long-term. However, it demonstrates that drug drivers can be stopped with the right tools. Cyprus introduced similar zero-tolerance drug-testing in 2018.

3.3.3 Distraction

The ever-growing use of mobile phones and other technologies such as satellite navigation devices and in-car entertainment systems, has led to increased interest in the problem of driver distraction and its effects on road safety. For many younger drivers, using an electronic device has become an inseparable part of participating in traffic. Compared to older road users, young people more often use a phone, text, listen to music and eat or drink while driving a car, but also while cycling.[102]

Driver distraction is a problem for all drivers but studies show that novice drivers are not able to handle secondary activities as well as experienced drivers. Moreover, young drivers tend to underestimate the risks related to performing secondary tasks while driving. In general they tend to engage in secondary tasks while driving more often than older drivers.[103]

Research showed that, among cyclists, willingness to engage in distracting tasks also depends very much on age. While middle-aged and older adult cyclists tended to avoid the use of equipment while cycling in more demanding traffic situations, this was far less visible for teen cyclists and young adult cyclists. Between 30-40% of the teen or young adult cyclists who listened to music while cycling always or nearly always did so in more demanding traffic conditions (darkness, intersections, or heavy traffic) compared to 16-23% for older cyclists. Similarly, between 7-13% of the teen and young adult cyclists always or nearly always used a mobile phone in more demanding situations, whereas almost none of the older cyclists did this always or nearly always.[104]

Young and novice drivers who are also young parents may also be distracted by their young children. According to research recently carried out in Finland, the presence of a small child passenger seems to increase the risk of a fatal collision, especially if drivers are travelling alone with a small child and are inexperienced drivers. In the study, the odds of a young woman (16-24 year olds) travelling alone with an infant being at fault in a collision (or crash risk) were two times that for the reference group (25-39 year olds)'.[105]

Driver training and special driver training programmes have a role to play in providing the required information on the risks of distracted driving. Beyond the initial driver training, governments could also insist that driver education programmes include distracted driving in driver training.

[97] BaST (2020) Re-evaluation of the zero tolerance law for novice drivers https://bit.ly/3z4Ekbe
[98] Twisk and Stacey (2007) Trends in young driver risk and countermeasures in European countries, Journal of Safety Research, p7. https://goo.gl/8jcUi0
[99] DRUID (2012) Final report, p55. https://goo.gl/U6s1ii
[100] Changes to Drug Driving Laws (2013) UK Department for Transport. https://goo.gl/d3b6e6
[101] BBC News, 23rd November 2015 'Drug-driving arrests increase 600% after law change', https://bbc.in/3k3ktmC
[102] Young and Lenne (2010) Driver engagement in distracting activities and the strategies used to minimize risk, https://bit.ly/3sxoL9v
[103] European Commission (2018) Driver Distraction https://bit.ly/3B8slVB
[104] Goldenbeld et al. (2012) Driver Distraction https://bit.ly/3B8slVB
[105] Maasalo (2021) Drivers with child passengers in fatal crashes: cautious but distracted? https://bit.ly/3Ac8GK7

RECOMMENDATIONS ON ALCOHOL, DRUGS AND DISTRACTION TO NATIONAL GOVERNMENTS

- Consider adopting a zero tolerance level (i.e. a maximum BAC of 0.2g/l) for all drivers and riders; this will benefit novice drivers as well.
- Introduce a zero tolerance system for illicit psychoactive drugs using the lowest limit of quantification that takes account of passive or accidental exposure.
- Introduce higher penalties for mobile phone use, raise awareness of the risks and consider introducing automated fines for smart phone use and improve enforcement to deal with high mobile device usage amongst young people.

RECOMMENDATIONS TO THE EU

- Consider adopting a Directive on a zero tolerance level (i.e. a maximum BAC of 0.2g/l) for all road users; this will benefit novice drivers as well.
- Introduce an EU zero tolerance system for illicit psychoactive drugs using the lowest limit of quantification that takes account of passive or accidental exposure.

3.4 PROTECTIVE EQUIPMENT

3.4.1 Seat belts

Despite the legal obligation to wear a seat belt across the EU, seat belt use in cars in the EU varies between countries.[106] The effectiveness of Seat Belt Reminders (SBR) in motivating seat belt use has been analysed in several on-road observational studies. The most extensive one showed that seat belt reminders fulfilling the Euro NCAP protocol are increasing seat belt use significantly.[107]

From the PIN countries that were able to provide data for this report, among young people killed in cars whose belt-wearing status at the time was known, the proportion who were not wearing a seat belt varies considerably from 8% in Portugal to 70% in Romania. In Finland between 2017 and 2019, 60% of the young people (15-30) killed in cars were not wearing a seat belt, in Switzerland 44%, in Sweden 38% and in Austria 30% (Table 4).

A study undertaken by PACTS on seat belt wearing rates in the UK found that in 2017, car drivers aged 17-29 had the lowest seat belt wearing rates at 97.2%, compared with 98.7% for drivers aged 30-59 and 99.3% for drivers aged 60 or over. The study also found that young people, namely those aged 16-25, are more likely than any other age group to be killed or seriously injured not wearing a seat belt, and particularly between the times of 19:00-07:00. 16% of 16-35 year olds killed or seriously injured in the UK were not wearing a seat belt compared with 11% of 36-45 year olds and 8% of 46-55 year olds year olds killed or seriously injured who were not wearing a seat belt.[108]

Data from some PIN countries indicate that non-use of seatbelts in fatal collisions is more prevalent for young people than for older vehicle occupants.

In Finland, in-depth collision investigations show that the proportion of young people killed in cars not wearing a seat belt is higher than for people aged 31 and over. In Finland, between 2017 and 2019, 60% of young people killed in cars were not wearing a seat belt where the status is known. Of the people aged 31+ killed in cars, 40% were not wearing a seat belt (Table 4).

In Greece, as many as 88% of killed young vehicle occupants whose seatbelt wearing status was known were not buckled up compared to 68% for older vehicle occupants. In Ireland, this rate is 44% for young vehicle occupants compared with 30% for older ones. In France, 29% of young people killed in cars were not wearing a seatbelt compared with 19% of older vehicle occupants.

Despite the legal obligation to wear a seat belt across the EU, seat belt use in cars in the EU varies between countries.

[106] ETSC (2016) How Traffic Law Enforcement can contribute to safer roads. https://bit.ly/3CAQQkn
[107] Lie, A. et al. (2009), Intelligent seat belt reminders – do they change driver seat belt use in Europe? http://goo.gl/UBhvEO
[108] PACTS (2019) Seat Belts: The Forgotten Road Safety Priority https://bit.ly/2USzJtl

Table 4. Young people (15-30) killed in cars, not wearing a seat belt (where seat belt status was known)
*AT - driver and passenger
*IE - Data is provisional and subject to change
*IL- only in private cars
*SI - drivers and passengers

	Young people killed in cars not wearing a seat belt (where seat belt status was known)	31+ killed in cars not wearing a seat belt (where seat belt status was known)	Time period covered
AT*	30%	n/a	2017-2019
BG	48%	n/a	2019
CY	62%	n/a	2018-2020
CZ	20%	n/a	2019-2020
DK	40%	n/a	2015-2019
EE	44%	n/a	2020
FI	60%	40%	2017-2019
FR	29%	19%	2019
EL	88%	68% (2018)	2019
HR	69%	n/a	2020
HU	45%	n/a	2018
IE*	44%	30%	2018-2020
PL	10%	n/a	2019-2020
PT	8%	n/a	2017-2019
RO	70%	n/a	2018-2020
SE	38%	n/a	2017 - 2019
SI*	38%	n/a	2018-2020
SK	60%	n/a	2017-2020
UK	35%	n/a	
GB	36%	n/a	
NI	25%	n/a	
CH	44%	n/a	2017-2019
IL*	25%	n/a	2018-2020
NO	35%	n/a	2019
RS	60%	n/a	

3.4.2 Helmets

A review of 61 international observational studies shows that wearing a motorcycle helmet reduces the risk of a fatal motorcycle collision by approximately 42%, and the risk of severe head injury by about 69%.[109] Wearing a helmet on a motorcycle is mandatory in all EU countries and on the whole compliance rates are high.

From the data that we were able to gather from PIN countries, helmet wearing rates among young riders are problematic in some countries. In Cyprus between 2018 and 2020, half of the young riders killed were not wearing a helmet. In Romania 43% of the young riders killed between 2018 and 2020 were not wearing a helmet. In Israel between 2018 and 2020 5% of the young motorcycle and moped riders killed were not wearing a helmet. In Switzerland in 2019 and in Estonia in 2020 all young riders killed were wearing a helmet (Table 5).

Table 5. Young riders (15-30) killed, not wearing a helmet.
*AT - drivers and passengers
*DK - only drivers
*HR - riders and passengers
*IE - data is provisional and subject to change

	% of young riders (15-30) killed not wearing a helmet (where helmet status was known)	% of riders aged 31+ killed not wearing a helmet (where helmet status was known)	Time period covered
AT*	8%	n/a	2017-2019
BG	5%	n/a	2019
CY	50%	32%	2018-2020
CZ	12%	n/a	2019-2020
DK*	28%	n/a	2015-2019
EE	0%	n/a	2020
FI	12%	0%	2017-2019
FR	7%	3%	2019
EL	66%	63%	2018
HR*	13%	n/a	2020
HU	8%	n/a	2018
IE*	13%	n/a	2018-2020
PL	4%	n/a	2019-2020
PT	4%	n/a	2017-2019
RO	43%	n/a	2018-2020
SE	14%	n/a	2017-2019
SI	25%	n/a	2018-2020
SK	4%	n/a	2017-2020
NI	22%	n/a	
CH	0%	n/a	2019
IL	5%	n/a	2018-2020
NO	25%	n/a	2019
RS	35%	n/a	

[109] Liu BC, Ivers R, Norton R, Boufous S, Blows S, Lo SK. (2008) Helmets for preventing injury in motorcycle riders. Cochrane Database of Systematic Reviews 2008, Issue 1. Art. No.: CD004333. DOI: 10.1002/14651858.CD004333.pub3. Accessed 06 May 2021.

GREECE

"In Greece seat belt and helmet wearing rates are above 90% for all ages outside urban areas, however inside urban areas seat belt and helmet wearing rates are low, especially among young people and among passengers/second riders. This is mainly explained by insufficient enforcement and the absence of appropriate training and campaigns on the need for seat belt and helmet wearing, especially among young people who have less experience and also tend to be more rebellious."
George Yannis, Professor at NTU Athens.

SWITZERLAND

In Switzerland the overall helmet wearing rate is close to 100%.[110] Wearing a motorbike helmet in Switzerland is compulsory and the rule is well enforced. Other factors which could contribute to the high helmet wearing rate are high levels of safety awareness, the price of a helmet is less of a barrier in relatively wealthy Switzerland and the climate conditions are more conducive to wearing a motorcycle helmet than, for example, in warmer countries.

RECOMMENDATIONS ON PROTECTIVE EQUIPMENT TO NATIONAL GOVERNMENTS

- Conduct intensive restraint systems enforcement, e.g. one week twice a year, coupled with intensive publicity campaigns.
- Increase enforcement of restraint systems in both front and rear seats. Each driver, as well as any passengers, stopped for whatever reason should be checked for seat belt wearing.
- Enforce the compulsory wearing and fastening of helmets for PTW riders

[110] bfu (2020) Status 2020 https://bit.ly/3m78bfv

3.5 ENFORCEMENT AND SAFETY LEGISLATION

Specific measures tackling young drivers will only be effective if they are coupled with enforcement (the probability of being caught when at fault) followed by appropriate sanctions.

All road users benefit from robust and effective road safety legislation, but especially young drivers and riders. Good safety legislation and its enforcement targets the most dangerous activities, those that are proven to increase the risk of a collision and the severity of injury, such as speeding, drink-, drug- and distracted-driving and non-use of seat belts or helmets. Young people not only engage in these activities but are more likely to be involved in a collision as a result. Therefore, ensuring that existing road safety legislation is being properly enforced will directly benefit young road users. Enforcement is also well supported, with 42% of the public stating that better enforcement of traffic laws should be a primary area of focus for governments when it comes to road safety.[111]

3.5.1 Demerit point system

With moderate levels of enforcement but a high-perceived chance of being caught thanks to good communication, a demerit point system is likely to have an effect on driver behaviour that is stronger than the effect of enforcement alone.[112]

A 2012 worldwide meta-analysis indicated that demerit point systems have a positive effect in reducing the number of traffic violations as well as the number of collisions, road deaths and injuries. However, the effects appeared to wear off in less than 18 months. Demerit point systems could achieve longer lasting safety effects when enforcement levels are sufficiently high and sustained over time.

Many PIN countries apply a probationary period to novice drivers restricting them during the first few years after obtaining their licence. Lowering the maximum number of points during the probationary period so that licences are withdrawn more quickly and after fewer offences, applies in 11 of the 30 PIN countries that were able to provide data for this report (BG, DK, ES, FR, GB, IE, IT, LV, NL, PT and SI). Croatia and Poland do not have probationary periods but apply similar rules to novice drivers.

Demerit point systems

Demerit point systems work by subtracting points from the licence of a road user who has committed an offence. Once a certain number of points are lost, the offender loses their licence. Young drivers can be subjected to a lower maximum number of points meaning they lose their licences more quickly for loss of a given number of points.

Similar systems operate by assigning points. In Great Britain, drivers and riders accrue points for offences until a certain threshold is crossed, after which they are banned from driving. The standard threshold is 12 points, however, new drivers have a lower threshold of 6 points and if this is reached within 6 months of gaining their full licence they have to retake their driving test.

[111] Flash Eurobarometer (July 2010) Road Safety Analytical Report, p6. https://goo.gl/aq9Jzo
[112] Van Schagen I, Machata, K. (2012), The Best Point Handbook, Getting the best out of a Demerit Point System. EU funded project, https://bit.ly/3ceulBj

RECOMMENDATIONS ON SAFETY LEGISLATION AND ENFORCEMENT TO NATIONAL GOVERNMENTS

- Improve enforcement in particular against the main killers: speed, drink-, drug- and distracted-driving and non-use of protective equipment (seat-belts and helmets).
- Consider targeted enforcement of traffic law in areas and at times with high traffic of young road users.
- Ensure police forces are properly trained in when and how to perform drug screening, field impairment tests and use of roadside screening devices.
- Improve awareness campaigns for young people concerning traffic laws, their enforcement and its consequences.
- Introduce higher penalties for mobile phone use, raise awareness of the risks and consider introducing automated fines for smart phone use and improve enforcement to deal with high mobile device usage amongst young people.
- Fully integrate gender perspectives into all policy-making, implementation and research related to road safety to maximise safety benefits to both men and women;

RECOMMENDATIONS TO THE EU

- Adopt common standards for roadside drug driving enforcement.
- Within the context of the revision of Directive 2015/413 concerning cross-border exchange of information on road safety related traffic offences, improve enforcement and follow up procedures in particular against the main killers: speed, drink-, drug- and distracted-driving and non-use of protective equipment (seat-belts and helmets). These particularly affect young road user safety.

For more information and recommendations on traffic law enforcement, see the ETSC PIN Flash 31 report "How traffic law enforcement can contribute to safer roads" at https://bit.ly/3FLBSu6.

ANNEXES

COUNTRY	ISO CODE
Austria	AT
Belgium	BE
Bulgaria	BG
Switzerland	CH
Cyprus	CY
Czechia	CZ
Germany	DE
Denmark	DK
Estonia	EE
Greece	EL
Spain	ES
Finland	FI
France	FR
Great Britain	GB
Croatia	HR
Hungary	HU
Ireland	IE
Israel	IL
Italy	IT
Lithuania	LT
Luxembourg	LU
Latvia	LV
Malta	MT
The Netherlands	NL
Norway	NO
Poland	PL
Portugal	PT
Romania	RO
Serbia	RS
Sweden	SE
Slovenia	SI
Slovakia	SK
The United Kingdom	UK

Total number of road deaths over the period 2010-2019

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AT	552	523	531	455	430	479	432	414	409	416
BE	850	884	827	764	745	762	670	609	604	644
BG	776	658	605	601	655	708	708	682	611	628
CY	60	71	51	44	45	57	46	53	49	52
CZ	802	773	742	654	688	737	611	577	658	617
DE	3,651	4,009	3,601	3,340	3,368	3,459	3,206	3,177	3,275	3,059
DK	255	220	167	191	183	178	211	183	175	199
EE	79	101	87	81	78	67	71	48	67	52
ES	2,478	2,060	1,903	1,680	1,688	1,689	1,810	1,830	1,806	1,755
FI	272	292	255	258	229	270	258	238	239	211
FR	3,992	3,963	3,653	3,268	3,384	3,461	3,477	3,448	3,248	3,244
EL	1,258	1,141	988	879	795	793	824	731	700	688
HR	426	418	393	368	308	348	307	331	317	297
HU	740	638	605	591	626	644	607	625	633	602
IE	212	186	163	188	192	162	182	155	137	140
IT	4,114	3,860	3,753	3,401	3,381	3,428	3,283	3,378	3,334	3,173
LU	32	33	34	45	35	36	32	25	36	22
LV	218	179	177	179	212	188	158	136	148	132
LT	299	297	302	258	267	242	192	192	173	186
MT	15	17	9	18	10	11	22	19	18	16
NL	640	661	650	570	570	620	629	613	678	661
PL	3,907	4,189	3,571	3,357	3,202	2,938	3,026	2,831	2,862	2,909
PT	937	891	718	637	638	593	563	602	675	626
RO	2,377	2,018	2,042	1,861	1,818	1,893	1,913	1,951	1,867	1,864
SE	266	319	285	260	270	259	270	253	324	221
SI	138	141	130	125	108	120	130	104	91	102
SK	345	324	296	223	259	274	242	250	229	245
UK	1,905	1,960	1,802	1,770	1,854	1,804	1,860	1,856	1,839	1,808
CH	327	320	339	269	243	253	216	230	233	187
IL	375	382	290	309	319	356	377	364	316	355
NO	208	168	145	187	147	117	135	106	108	108
RS	660	731	688	650	536	599	607	579	548	534
EU25	**29,377**	**28,552**	**26,227**	**24,020**	**23,907**	**24,163**	**23,666**	**23,244**	**23,172**	**22,559**

Total population.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AT	8,351,643	8,375,164	8,408,121	8,451,860	8,507,786	8,584,926	8,700,471	8,772,865	8,822,267	8,858,775
BE	10,839,905	10,951,266	11,035,948	11,099,554	11,150,516	11,209,044	11,267,910	11,322,088	11,376,070	11,431,406
BG	7,421,766	7,369,431	7,327,224	7,284,552	7,245,677	7,202,198	7,153,784	7,101,859	7,050,034	7,000,039
CY	819,140	839,751	862,011	865,878	858,000	847,008	848,319	854,802	864,236	875,899
CZ	10,462,088	10,486,731	10,505,445	10,516,125	10,512,419	10,538,275	10,553,843	10,578,820	10,610,055	10,649,800
DE	81,802,257	80,222,065	80,327,900	80,523,746	80,767,463	81,197,537	82,175,684	82,521,653	82,792,351	83,019,213
DK	5,534,738	5,560,628	5,580,516	5,602,628	5,627,235	5,659,715	5,707,251	5,748,769	5,781,190	5,806,081
EE	1,333,290	1,329,660	1,325,217	1,320,174	1,315,819	1,314,870	1,315,944	1,315,635	1,319,133	1,324,820
ES	46,486,619	46,667,174	46,818,219	46,727,890	46,512,199	46,449,565	46,440,099	46,528,024	46,658,447	46,937,060
FI	5,351,427	5,375,276	5,401,267	5,426,674	5,451,270	5,471,753	5,487,308	5,503,297	5,513,130	5,517,919
FR	62,765,235	63,070,344	63,375,971	63,697,865	64,027,958	64,300,821	64,468,792	64,618,416	64,725,052	64,821,954
EL	11,119,289	11,123,392	11,086,406	11,003,615	10,926,807	10,858,018	10,783,748	10,768,193	10,741,165	10,724,599
HR	4,302,847	4,289,857	4,275,984	4,262,140	4,246,809	4,225,316	4,190,669	4,154,213	4,105,493	4,076,246
HU	10,014,324	9,985,722	9,931,925	9,908,798	9,877,365	9,855,571	9,830,485	9,797,561	9,778,371	9,772,756
IE	4,549,428	4,570,881	4,589,287	4,609,779	4,637,852	4,677,627	4,726,286	4,784,383	4,830,392	4,904,240
IT	59,190,143	59,364,690	59,394,207	59,685,227	60,782,668	60,795,612	60,665,551	60,589,445	60,483,973	60,359,546
LU	502,066	511,840	524,853	537,039	549,680	562,958	576,249	590,667	602,005	613,894
LV	2,120,504	2,074,605	2,044,813	2,023,825	2,001,468	1,986,096	1,968,957	1,950,116	1,934,379	1,919,968
LT	3,141,976	3,052,588	3,003,641	2,971,905	2,943,472	2,921,262	2,888,558	2,847,904	2,808,901	2,794,184
MT	414,027	414,989	417,546	422,509	429,424	439,691	450,415	460,297	475,701	493,559
NL	16,574,989	16,655,799	16,730,348	16,779,575	16,829,289	16,900,726	16,979,120	17,081,507	17,181,084	17,282,163
PL	38,022,869	38,062,718	38,063,792	38,062,535	38,017,856	38,005,614	37,967,209	37,972,964	37,976,687	37,972,812
PT	10,057,999	10,030,968	9,976,649	9,918,548	9,869,783	9,839,140	9,809,414	9,792,797	9,779,826	9,798,859
RO	20,294,683	20,199,059	20,095,996	20,020,074	19,947,311	19,870,647	19,760,585	19,643,949	19,530,631	19,414,458
SE	9,340,682	9,415,570	9,482,855	9,555,893	9,644,864	9,747,355	9,851,017	9,995,153	10,120,242	10,230,185
SI	2,046,976	2,050,189	2,055,496	2,058,821	2,061,085	2,062,874	2,064,188	2,065,895	2,066,880	2,080,908
SK	5,390,410	5,392,446	5,404,322	5,410,836	5,415,949	5,421,349	5,426,252	5,435,343	5,443,120	5,450,421
UK	62,510,197	63,022,532	63,495,088	63,905,342	64,351,203	64,853,393	65,379,044	65,844,142	66,273,576	66,647,112
CH	7,785,806	7,870,134	7,954,662	8,039,060	8,139,631	8,237,666	8,327,126	8,419,550	8,484,130	8,544,527
IL	7,695,072	7,836,592	7,984,458	8,134,464	8,296,871	8,463,427	8,628,592	8,797,944	8,967,594	9,140,473
NO	4,858,199	4,920,305	4,985,870	5,051,275	5,107,970	5,166,493	5,210,721	5,258,317	5,295,619	5,328,212
RS	7,306,677	7,251,549	7,216,649	7,181,505	7,146,759	7,114,393	7,076,372	7,040,272	7,001,444	6,963,764
EU25	**434,695,317**	**434,024,598**	**434,664,713**	**435,392,071**	**436,815,452**	**437,612,845**	**438,762,342**	**439,518,053**	**440,108,732**	**440,868,134**

Table 1 (Fig.2). Total number of road deaths among young people (15-30 year old) over the period 2010-2019.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AT	167	137	160	101	97	128	100	98	89	93
BE	301	277	240	229	209	206	175	162	135	165
BG	219	185	168	156	165	183	167	146	131	149
CY	24	27	26	22	19	17	14	16	16	11
CZ	229	233	187	175	178	184	137	130	153	153
DE	1128	1242	1063	894	889	838	771	738	708	667
DK	69	54	48	43	39	50	54	49	37	44
EE	17	26	28	22	27	19	23	10	13	7
ES	625	459	374	295	279	320	332	388	366	337
FI	85	91	75	65	68	72	75	62	60	59
FR	1471	1466	1303	1097	1112	1140	1056	1060	938	980
EL	399	336	267	232	211	213	189	185	156	170
HR	117	143	109	104	74	81	71	81	70	83
HU	157	133	97	118	110	140	104	94	94	110
IE(3)	100	81	65	67	55	58	59	50	37	42
IT	1086	977	839	767	717	704	696	666	665	660
LU	15	14	14	11	11	8	9	9	13	8
LV	48	43	37	38	48	47	40	29	25	25
LT	n/a	n/a	n/a	74	66	57	34	31	43	37
MT	7	n/a	n/a	n/a	n/a	3	8	7	5	7
NL(1)	160	144	135	144	126	131	130	113	123	150
PL	1,240	1317	1099	1007	937	801	864	728	728	726
PT	195	199	143	117	113	102	107	99	118	129
RO	551	455	467	433	373	427	405	358	318	299
SE	80	84	79	72	47	80	63	65	66	49
SI	33	33	29	34	18	31	37	34	27	17
SK(1)	100	96	93	60	80	72	72	67	58	49
UK	646	616	577	593	579	573	526	545	505	455
CH	69	70	63	52	58	62	51	55	41	30
IL	119	131	90	113	90	100	126	126	102	124
NO	73	43	52	51	33	39	42	21	24	31
RS	150	185	167	160	133	114	119	103	109	98
EU25	**8,616**	**8,252**	**7,145**	**6,303**	**6,002**	**6,052**	**5,750**	**5,437**	**5,144**	**5,182**

Fig.2(2) Annual change in road mortality 2010-2019		
	15-30 year old deaths	Other age groups deaths
NO	-10.7%	-6.7%
SK	-9.0%	-3.4%
EE	-8.2%	-5.2%
BE	-7.9%	-3.4%
LU	-7.8%	-3.7%
IE	-7.4%	-2.2%
CY	-7.4%	0.7%
CH	-7.4%	-6.7%
DE	-6.6%	-1.1%
EL	-6.6%	-5.1%
AT	-6.4%	-3.1%
DK	-4.9%	-1.7%
IT	-4.9%	-1.9%
SE	-4.7%	-1.4%
RS	-4.5%	-1.8%
HR	-4.5%	-2.6%
PT	-4.4%	-3.6%
FR	-4.3%	-1.2%
PL	-3.9%	-3.7%
RO	-3.7%	-0.6%
FI	-3.6%	-2.2%
UK	-3.1%	-0.1%
CZ	-3.0%	-2.8%
NL	-2.5%	0.5%
LV	-2.3%	-3.8%
HU	-1.9%	-0.5%
ES	-1.8%	-2.4%
IL	-1.0%	-2.2%
SI	-1.0%	-5.1%
BG	-0.7%	0.3%
EU25	**-4.7%**	**-2.2%**
MT	n/a	
LT	n/a	

Data source: EU CARE data and PIN panellists.
EU25 average: EU27 excluding LT and MT due to insufficient data.
Annual numbers of road user in CY, EE and LU are statistically small and are, therefore, subject to substantial annual fluctuation.
(1)NL and SK - data for 15-29 year olds (PIN panellist)
(2)The average annual change is based on the entire time series of all the ten annual numbers of mortality between 2010 and 2019, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: https:// bit.ly/2LVVUtY
and 2018, and estimates the average exponential trend. For more information read the methodological note, PIN Flash 6: https://bit.
ly/2LVVUtY
(3)IE - data for 2018-2020 are provisional and subject to change.

Table 2. Young people (15-30 year old) population over the period 2010-2019.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AT	1,681,806	1,684,544	1,685,529	1,687,788	1,688,281	1,696,102	1,724,688	1,723,987	1,713,028	1,695,460
BE	2,145,477	2,161,183	2,167,262	2,171,065	2,170,877	2,173,813	2,181,247	2,185,489	2,186,627	2,188,244
BG	1,509,987	1,461,696	1,423,552	1,379,241	1,338,225	1,302,083	1,265,199	1,222,868	1,178,784	1,139,947
CY	214,177	219,856	223,936	219,301	209,769	205,054	202,433	202,844	202,646	202,009
CZ	2,214,562	2,142,184	2,083,493	2,030,646	1,974,826	1,929,175	1,883,656	1,840,348	1,805,748	1,777,665
DE	15,199,320	14,724,090	14,696,070	14,721,002	14,738,887	14,817,862	15,193,806	15,181,859	15,075,894	14,931,673
DK	1,055,245	1,071,357	1,085,001	1,102,724	1,120,415	1,139,935	1,166,640	1,184,107	1,195,076	1,202,232
EE	294,410	287,160	279,384	271,385	263,576	259,046	252,574	245,796	240,456	234,696
ES	9,100,529	8,776,349	8,481,740	8,180,583	7,884,315	7,704,172	7,594,119	7,546,094	7,569,168	7,677,368
FI	1,070,697	1,073,362	1,074,448	1,073,376	1,067,022	1,059,715	1,052,490	1,049,444	1,045,447	1,042,313
FR	12,452,116	12,416,882	12,311,192	12,236,015	12,188,996	12,180,364	12,174,072	12,148,050	12,095,168	12,022,059
EL	2,213,096	2,146,429	2,071,228	1,989,470	1,917,687	1,857,883	1,811,234	1,797,270	1,785,756	1,787,466
HR	869,124	857,296	847,713	838,799	828,526	813,448	795,102	773,288	750,729	734,934
HU	2,112,826	2,069,311	1,965,609	1,933,517	1,903,198	1,878,906	1,859,740	1,832,357	1,815,016	1,800,590
IE	1,095,998	1,045,228	995,773	966,673	947,283	938,735	939,108	941,552	949,462	968,225
IT	10,025,902	9,951,741	9,925,497	9,867,701	9,980,181	9,919,546	9,856,495	9,802,931	9,788,771	9,769,172
LU	101,417	103,760	108,294	111,069	113,263	115,979	119,041	122,518	124,828	127,102
LV	478,287	453,247	435,286	420,222	402,136	385,605	369,882	354,157	340,059	327,644
LT	705,037	664,977	644,404	632,249	622,057	610,181	591,435	567,013	536,207	518,441
MT	93,854	92,407	91,859	92,981	93,655	95,140	96,865	98,025	101,791	106,850
NL(1)	3,027,688	3,043,011	3,058,943	3,072,928	3,095,053	3,120,699	3,155,675	3,191,735	3,222,970	3,253,807
PL	9,201,287	9,009,607	8,802,205	8,592,991	8,332,470	8,045,839	7,773,667	7,514,829	7,274,643	7,058,327
PT(2)	1,846,451	1,825,686	1,780,432	1,735,889	1,702,606	1,681,253	1,664,758	1,653,235	1,648,682	1,649,641
RO	4,118,714	4,077,000	4,043,376	3,966,384	3,915,107	3,877,557	3,786,543	3,688,635	3,568,009	3,457,501
SE	1,931,067	1,951,714	1,955,025	1,959,284	1,965,708	1,977,385	1,989,607	2,015,047	2,032,925	2,044,313
SI	419,489	406,910	395,781	384,781	374,233	363,679	355,012	346,201	339,002	336,389
SK(1)	1,222,736	1,191,430	1,163,163	1,133,410	1,102,840	1,071,419	1,039,651	1,007,415	976,640	947,399
UK	13,296,593	13,406,308	13,451,345	13,428,627	13,416,204	13,432,255	13,440,944	13,387,416	13,318,600	13,268,334
CH	1,537,232	1,567,085	1,577,476	1,585,413	1,595,444	1,603,591	1,611,448	1,618,482	1,610,832	1,599,996
IL	1,866,797	1,885,531	1,907,329	1,931,124	1,954,477	1,984,393	2,013,646	2,046,626	2,084,799	2,122,074
NO	997,774	1,020,213	1,042,748	1,064,189	1,077,638	1,093,460	1,100,988	1,108,401	1,108,630	1,108,599
RS	1,512,445	1,450,685	1,428,084	1,402,638	1,374,731	1,343,710	1,312,134	1,289,533	1,268,702	1,247,970
EU27	**86,401,299**	**84,908,417**	**83,796,195**	**82,771,474**	**81,941,192**	**81,220,575**	**80,894,739**	**80,237,094**	**79,563,532**	**79,001,467**
EU25	**85,602,408**	**84,151,033**	**83,059,932**	**82,046,244**	**81,225,480**	**80,515,254**	**80,206,439**	**79,572,056**	**78,925,534**	**78,376,176**

Data source: Eurostat.
(1) 15-29 year olds
(2) mainland only (PIN panellist)

Table 3 (Fig.3). Young people road deaths per million young inhabitants (with road deaths per million inhabitants at all other ages for comparison) in the last three years (2017-2019).

	Fig.3 Road deaths per million inhabitants in 2017-2019	
	15-30 year old deaths per mln young unhabitants	Other ages deaths per mln other inhabitants
NO	22.9	19.6
CH	26.1	25.4
SE	29.5	25.5
DK	36.3	31.0
UK	37.6	25.2
NL(1)	39.9	37.4
EE	41.6	42.3
IE(2)	45.1	26.0
DE	46.8	36.4
ES	47.9	36,6
AT	54.6	45.0
HU	54.7	65.4
IL	56.3	33.1
FI	57.7	37.8
SK(1)	59.4	41.8
MT(3)	67.4	35.8
IT	67.8	51.9
LT	68.4	64.4
PT	69.9	63.8
BE	70.4	50.5
CY	70.8	55.8
SI	76.4	42.2
LV	77.3	70.5
LU	80.1	37.0
CZ	80.4	53.6
RS	81.4	78.5
FR	82.1	44.1
RO	91.0	98.3
EL	95.1	59.9
PL	99.9	69.7
HR	103.6	70.5
BG	120.3	84.9
EU27	**66.6**	**49.2**

EU27 total for 2019 is an ETSC estimate as 2019 data were not available in MT at the time of publishing this report.
(1)NL and SK - data for 15-29 year olds (PIN Panellists)
(2)IE - data for 2018-2020 are provisional and subject to change.
(3)MT - 2010-2018 data.

Table 4 (Fig.4). Young people's road deaths per million young people, in total and by gender – average of the last three years (2017-2019), ranked by the mortality of both sexes.

	Fig.4 Road deaths per mln young people 2017-2019		
	Both sexes (15-30 year olds)	Men (15-30 year olds)	Women (15-30 year olds)
NO	22.9	37.5	7.4
CH	26.1	41.7	9.8
SE	29.5	46.9	10.9
DK	36.3	59.0	12.6
UK	37.6	60.2	14.1
NL(1)	39.9	63.2	15.8
EE	41.6	58.9	23.0
IE(2)	45.1	79.8	9.9
DE	46.8	71.6	19.6
ES	47.9	73.1	21.6
AT	54.6	85.6	21.7
HU	54.7	80.9	26.9
SK(1)	54.8	78.8	29.6
IL	56.3	93.0	18.2
FI	57.7	90.6	22.9
MT(3)	67.4	97.1	35.2
IT	67.8	110.0	22.9
LT	68.4	105.1	29.3
PT	69.9	111.3	27.3
BE	70.1	110.4	27.4
CY	70.8	130.1	13.0
SI	76.4	114.8	34.7
LV	77.3	127.5	24.2
LU	80.1	120.1	38.3
CZ	80.4	129.1	29.1
RS	81.4	131.0	29.1
FR	82.1	134.5	28.9
RO	91.0	140.5	38.1
EL	95.1	163.7	23.6
PL	99.9	159.8	37.3
HR	103.6	167.7	36,3
BG	120,4	189,2	47.1
EU27	**66.6**	**105.7**	**25.3**

EU27 total for 2019 is an ETSC estimate as 2019 data were not available in MT at the time of publishing this report.
(1)NL and SK - data for 15-29 year olds (PIN Panellists)
(2)IE - data for 2018-2020 are provisional and subject to change.
(3)MT 2010-2018 data.

Table 5 (Fig.5a). Proportion of road deaths by road user groups, among young men (15-30 year olds) in the last three years (2017-2019). Countries ranked by proportion of car drivers.

	Fig.5a Proportion of road deaths by road user groups, among young men (15-30 year olds) in 2017-2019									
	Car driver	Car passenger	Motorcycle rider	Motorcycle passenger	Moped rider	Moped passenger	Cyclist	Pedestrian	Other	Unknown
NO	59%	5%	23%	3%	3%	0%	0%	2%	5%	0%
LU	48%	13%	30%	0%	4%	0%	0%	4%	0%	0%
FI	47%	12%	17%	1%	4%	0%	1%	6%	12%	0%
CZ	47%	18%	16%	0%	0%	0%	3%	8%	8%	0%
DK	46%	12%	6%	0%	11%	1%	4%	12%	7%	0%
SK	45%	28%	14%	0%	0%	0%	2%	11%	0%	0%
BE	44%	15%	15%	0%	5%	0%	5%	6%	8%	1%
PL	43%	20%	18%	1%	2%	0%	2%	9%	3%	2%
RO	42%	27%	7%	1%	1%	1%	3%	9%	9%	0%
LV	42%	18%	1%	0%	4%	0%	3%	19%	10%	1%
EE	41%	27%	9%	0%	0%	0%	0%	5%	5%	14%
BG	41%	24%	2%	0%	1%	0%	2%	7%	1%	22%
IE(1)	41%	18%	14%	0%	0%	0%	5%	14%	8%	0%
HR	41%	23%	22%	2%	3%	0%	2%	4%	4%	1%
NL	41%	17%	12%	1%	8%	1%	8%	3%	9%	0%
AT	40%	13%	23%	0%	8%	0%	0%	8%	6%	0%
FR	39%	13%	25%	1%	8%	0%	2%	6%	5%	0%
DE	39%	12%	30%	0%	2%	0%	4%	8%	5%	0%
HU	39%	21%	15%	0%	1%	0%	5%	12%	7%	0%
SI	38%	21%	25%	0%	3%	0%	5%	3%	5%	0%
LT	35%	26%	17%	0%	3%	1%	1%	16%	0%	0%
SE	35%	18%	20%	0%	1%	0%	1%	6%	16%	3%
UK	35%	15%	27%	1%	1%	0%	3%	15%	3%	1%
RS	34%	19%	20%	1%	1%	0%	4%	13%	9%	0%
ES	33%	15%	27%	1%	4%	0%	3%	8%	8%	0%
IT	33%	16%	32%	2%	6%	0%	3%	5%	3%	0%
PT	40%	16%	25%	0%	5%	0%	3%	7%	2%	1%
GB	32%	15%	29%	1%	2%	0%	2%	16%	2%	0%
CH	28%	16%	33%	2%	3%	0%	6%	7%	6%	0%
EL	24%	9%	49%	2%	4%	0%	2%	5%	4%	1%
IL	22%	13%	34%	0%	1%	0%	4%	10%	16%	1%
MT(2)	13%	7%	47%	0%	0%	0%	0%	27%	7%	0%
CY	13%	5%	54%	5%	5%	0%	3%	0%	15%	0%
EU27	**38%**	**16%**	**23%**	**1%**	**4%**	**0%**	**3%**	**7%**	**5%**	**1%**

EU27 total for 2019 is an ETSC estimate as 2019 data were not available in MT at the time of publishing this report.
Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation.
(1)IE - data for 2018-2020 are provisional and subject to change.
(2)MT - 2010-2018 data.

Table 6 (Fig.5b). Proportion of road deaths by road user groups, among young women (15-30 year olds) in the last three years (2017-2019). Countries ranked by proportion of car drivers.

	Fig.5b Proportion of road deaths by road user groups, among young women (15-30 year olds) in 2017-2019									
	Car driver	Car passenger	Motorcycle rider	Motorcycle passenger	Moped rider	Moped passenger	Cyclist	Pedestrian	Other	Unknown
FI	57%	23%	3%	0%	0%	0%	6%	6%	6%	0%
DE	48%	23%	7%	3%	1%	0%	6%	11%	1%	0%
DK	45%	18%	0%	0%	0%	0%	27%	5%	5%	0%
AT	44%	26%	4%	0%	6%	0%	2%	17%	2%	0%
BE	44%	25%	0%	1%	4%	1%	7%	16%	2%	0%
FR	43%	30%	5%	3%	2%	1%	3%	11%	2%	0%
IE(1)	43%	29%	0%	7%	0%	0%	0%	21%	0%	0%
LU	43%	57%	0%	0%	0%	0%	0%	0%	0%	0%
LT	39%	48%	4%	4%	0%	0%	0%	4%	0%	0%
PL	39%	39%	1%	2%	0%	0%	4%	15%	1%	0%
UK	36%	32%	3%	1%	0%	0%	4%	22%	1%	0%
GB	35%	32%	2%	1%	0%	0%	4%	25%	1%	0%
SE	34%	47%	0%	3%	6%	0%	3%	0%	6%	0%
NO	33%	17%	17%	0%	0%	0%	8%	25%	0%	0%
IT	33%	37%	7%	7%	1%	1%	2%	11%	2%	0%
HR	33%	45%	0%	3%	0%	3%	0%	13%	5%	0%
BG	32%	53%	1%	0%	0%	0%	0%	6%	2%	5%
ES	31%	38%	3%	6%	2%	2%	1%	12%	3%	0%
CZ	30%	45%	3%	4%	0%	0%	1%	16%	1%	0%
SI	29%	12%	6%	0%	0%	0%	6%	6%	0%	41%
EL	29%	31%	3%	19%	2%	0%	2%	13%	0%	2%
PT	39%	33%	4%	7%	0%	1%	0%	13%	1%	0%
CH	26%	9%	13%	4%	0%	0%	13%	26%	9%	0%
CY	25%	25%	25%	0%	0%	0%	0%	25%	0%	0%
IL	25%	30%	5%	0%	0%	0%	2%	23%	14%	0%
NL	23%	32%	1%	0%	6%	0%	19%	12%	5%	0%
SK	22%	61%	2%	2%	0%	0%	2%	11%	0%	0%
MT(2)	20%	40%	40%	0%	0%	0%	0%	0%	0%	0%
RO	19%	55%	1%	1%	0%	0%	1%	17%	6%	0%
HU	17%	54%	0%	3%	0%	0%	3%	18%	6%	0%
LV	17%	67%	0%	0%	0%	0%	0%	8%	8%	0%
EE	13%	50%	0%	0%	0%	0%	0%	13%	0%	25%
RS	9%	63%	0%	9%	0%	0%	2%	15%	2%	0%
EU27	**37%**	**36%**	**4%**	**4%**	**1%**	**1%**	**4%**	**12%**	**2%**	**1%**

EU27 total for 2019 is an ETSC estimate as 2019 data were not available in MT at the time of publishing this report.
Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation.
(1)IE - data for 2018-2020 are provisional and subject to change.
(2)MT - 2010-2018 data.

Table 7 (Fig.6). Road deaths of young people aged 15-30 as a proportion of deaths from all causes for same age group in the last three years (2017-2019).

	Fig.6 Young peopled road deaths as a % of all deaths	Time period covered
EE	7%	2017-19
SE	8%	2016-18
LT	8%	2016-18
NO	8%	2017-19
LV	9%	2017-19
CH	10%	2017-19
UK	10%	2016-18
FI	11%	2017-19
SK (1)	12%	2016-18
DK	13%	2017-19
HU	13%	2016-18
NL(1)	14%	2016-18
RO	15%	2017-19
IE(2)	15%	2016-18
DE	16%	2016-18
AT	16%	2016-18
CZ	17%	2016-18
PL	18%	2017-19
ES	19%	2016-18
BE	19%	2016-18
IL	20%	2016-18
BG	20%	2017-19
RS	21%	2017-19
FR	21%	2017-19
PT	21%	2017-19
SI	24%	2016-18
MT	24%	2016-18
IT	25%	2016-18
HR	26%	2017-19
EL	27%	2017-19
CY	28%	2017-19
LU	29%	2016-18
EU27	**18%**	**2016-18**

Data source for young people deaths from all causes: Eurostat.
(1)NL and SK - data for 15-29 year olds
(2)IE - data of young people road deaths for 2018-2020 are provisional and subject to change.

Table 8 (Fig.8). Road deaths in collisions involving at least one young driver or rider (in latest three years available – 2017-2019) as a proportion of the total number of road deaths.

	Total number of road deaths involving young driver or rider (2017-2019)
AT	446
BE	711
BG	769
CY	64
CZ	681
DE	3,395
DK	209
EE	54
ES	1,682
FI	279
FR	4,155
EL	604
HR	358
HU	485
IE(1)	175
IT	3,176
LU	43
LV	117
LT	219
MT(2)	33
NL	672
PL	3,939
PT	515
RO	2,241
SE	263
SI	105
SK	255
UK	2,264
CH	190
IL	519
NO	120
RS	531
EU27	**25,645**

	Fig.8 Road deaths involving one young driver or rider as % of all road deaths 2017-2019
HU	26%
PT	27%
LV	28%
EL	29%
CH	29%
ES	31%
RS	32%
IT	32%
EE	32%
SE	33%
SK	35%
SI	35%
DE	36%
AT	36%
CZ	37%
NO	37%
DK	38%
HR	38%
BE	38%
CY	39%
NL	39%
RO	39%
LT	40%
BG	40%
IE	41%
FI	41%
UK	41%
FR	42%
PL	46%
IL	50%
LU	52%
MT	56%
EU27	**37%**

EU27 total for 2019 is an ETSC estimate as 2019 data were not available in MT at the time of publishing this report.
Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation.
(1)IE - data of young people road deaths for 2018-2020 are provisional and subject to change.
(2)MT - 2010-2018 data.

Table 9 (Fig.9). Road deaths following collisions involving at least one young driver or rider ranked by the share of young car drivers killed in those collisions in the last three years available (2017-2019).

	Fig.9 Road deaths following collisions involving at least one young driver or rider 2017-2019												
	15-30 car driver	31+ year old car driver	Car passenger	15-30 motorcycle rider	31+ year old motorcycle rider	Motorcycle passenger	15-30 moped rider	31+ year old moped rider	Moped passenger	Cyclist	Pedestrian	Other	Unknown
NO	35%	16%	14%	14%	2%	2%	2%	0%	0%	3%	8%	4%	0%
LU	33%	9%	21%	16%	5%	0%	2%	0%	0%	2%	12%	0%	0%
FI	32%	16%	17%	9%	1%	1%	2%	0%	0%	5%	5%	12%	0%
IE	30%	7%	18%	9%	1%	1%	0%	0%	0%	4%	20%	9%	0%
DK	29%	13%	13%	3%	5%	0%	6%	1%	0%	12%	10%	8%	0%
FR	29%	9%	16%	16%	5%	1%	5%	1%	0%	4%	10%	5%	0%
BE	28%	9%	16%	8%	5%	0%	3%	1%	0%	10%	12%	8%	1%
CZ	28%	11%	21%	9%	4%	0%	0%	0%	0%	5%	15%	7%	0%
SI	27%	8%	22%	15%	6%	0%	2%	1%	0%	6%	9%	5%	1%
SK	26%	11%	28%	7%	19%	0%	0%	0%	0%	2%	7%	0%	0%
PT	26%	9%	17%	16%	6%	1%	0%	2%	0%	3%	20%	1%	0%
HR	26%	11%	21%	12%	3%	1%	1%	1%	0%	5%	14%	5%	1%
LV	26%	8%	24%	1%	0%	0%	3%	1%	0%	4%	25%	9%	1%
AT	26%	11%	15%	12%	7%	0%	5%	1%	0%	5%	11%	5%	1%
DE	25%	13%	14%	16%	6%	1%	1%	1%	0%	8%	10%	5%	0%
SE	24%	14%	21%	11%	3%	0%	1%	0%	0%	6%	9%	9%	2%
UK	23%	10%	17%	15%	6%	1%	0%	0%	0%	5%	18%	3%	0%
PL	23%	10%	20%	8%	2%	0%	1%	1%	0%	7%	21%	4%	1%
NL	23%	9%	16%	6%	2%	0%	5%	1%	1%	21%	6%	6%	3%
BG	22%	26%	22%	4%	4%	0%	0%	0%	0%	2%	11%	1%	8%
ES	21%	10%	17%	14%	6%	1%	3%	1%	1%	3%	16%	7%	0%
EL	21%	5%	11%	37%	5%	3%	3%	1%	0%	1%	10%	3%	0%
IT	20%	10%	16%	18%	7%	2%	3%	1%	0%	6%	13%	3%	1%
HU	20%	10%	30%	7%	2%	1%	0%	0%	0%	7%	16%	5%	0%
CH	18%	6%	16%	19%	8%	2%	2%	0%	0%	10%	12%	7%	1%
LT	18%	9%	23%	8%	3%	0%	2%	0%	0%	5%	32%	1%	0%
RS	18%	9%	20%	10%	2%	2%	0%	1%	0%	10%	22%	6%	0%
EE	17%	7%	13%	4%	4%	0%	0%	2%	0%	2%	11%	6%	35%
RO	16%	7%	23%	3%	1%	0%	0%	1%	0%	7%	35%	6%	0%
IL(2)	14%	9%	15%	19%	2%	2%	1%	0%	0%	10%	16%	12%	0%
CY	9%	5%	3%	34%	5%	6%	3%	2%	0%	3%	16%	14%	0%
MT(1)	9%	9%	18%	24%	12%	0%	0%	0%	0%	3%	15%	9%	0%
EU27	**24%**	**10%**	**18%**	**12%**	**5%**	**1%**	**2%**	**1%**	**0%**	**6%**	**15%**	**5%**	**1%**

Data source: EU CARE data and PIN panellists.
Annual numbers of young road user deaths in LU, MT, CY and EE are statistically small and are, therefore, subject to substantial annual fluctuation.
(1)MT - 2010-2018 data.
(2)IL only 15-29 year old drivers and riders.

Table 10. Total number of young people (15-30 year olds) seriously injured over the period 2010-2019 based on the national serious injury definition.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
AT(1)	2,154	1,957	2,456	2,112	2,058	2,082	2,044	2,035	1,958	1,892
BE	1,701	1,775	1,575	1,459	1,360	1,220	1,169	1,116	1,028	1,052
BG	749	762	670	687	603	664	715	517	472	482
CY	237	243	236	165	208	155	146	147	122	117
CZ	870	914	842	740	759	639	588	563	578	464
DE	20,153	21,724	20,600	19,479	20,440	20,146	19,727	18,763	18,790	17,921
DK	747	709	636	591	559	532	554	537	552	541
EE	n/a					117	95	97	93	65
ES	3,602	3,173	2,669	2,464	2,322	2,299	2,409	2,423	2,121	2,095
FI	n/a				195	188	179	157	205	149
FR	12,286	11,803	10,520	9,696	9,787	9,767	9,930	10,035	n/a	
EL	635	642	560	448	383	354	332	229	244	219
HR	1,069	1,156	948	819	771	793	778	777	814	701
HU(2)	1,469	1,303	1,175	1,224	1,194	1,306	1,249	1,327	1,233	1,197
IE(3)	246	207	199	202	237	268	307	308	424	423
IT	n/a						3,055	3,053	3,283	3,104
LU	78	101	109	95	78	94	73	71	77	69
LV	191	186	157	144	156	180	146	164	139	121
LT	n/a						26	42	42	32
MT	n/a									
NL	16%	16%	15%	13%	13%	12%	12%	11%	12%	11%
PL	4,264	4,665	4,317	4,039	4,012	3,701	3,879	3,374	3,249	3,088
PT	794	677	559	524	514	526	516	524	514	546
RO	2,561	2,566	2,519	2,125	2,241	2,446	2,202	1,954	1,889	1,957
SE	1,477	1,353	1,346	1,419	1,481	1,286	1,313	1,244	1,130	1,035
SI	279	296	221	171	201	224	187	193	170	161
SK	383	351	341	320	330	297	287	303	312	290
UK(4)	8,329	8,385	8,348	7,792	7,995	7,809	8,509	8,810	8,488	8,656
CH	1,310	1,313	1,201	1,083	996	939	937	858	872	793
IL(5)	n/a			660	621	683	767	780	714	777
NO	282	262	250	210	196	194	181	189	167	158
RS	1,201	1,148	1,036	904	812	863	789	840	754	747
EU21(6)	**55,945**	**56,563**	**52,655**	**48,923**	**49,694**	**48,979**	**48,551**	**46,604**	**45,727**	**44,282**

EU21 average: EU27 excluding EE, FI, IT, LT, MT and NL due to insufficient data.
(1)AT - serious injury data collection methodology changed in 2012.
(2)HU - from 2011 the existing definition is valid. Before 2011 only people who needed longer healing than 8 days were reported as seriously injured.
(3)IE - serious injury data collection methodology changed in 2014.
(4)UK - Since 2016 and onwards, changes in severity reporting systems for a large number of police forces mean that serious injury figures, and to a lesser extent slight injuries, are not comparable with earlier years.
(5)IL - serious injury data collection methodology changed in 2013.
(6) ETSC estimated numbers for FR for 2018 and 2019 to calculate the EU average

	Fig.10 (7) Annual change in serious injuries 2010-2019	
	15-30 year olds' serious injuries	Other age groups' serious injuries
EL	-12.4%	-9.8%
CY	-8.2%	-4.6%
CZ	-6.9%	-2.3%
BE	-6.2%	-4.7%
NO	-6.0%	0.0%
CH	-5.6%	-1.1%
SI	-5.4%	1.2%
RS	-5.1%	0.0%
BG	-5.0%	-1.1%
ES	-4.9%	-2.5%
HR	-4.4%	-1.7%
PL	-4.1%	0.2%
LU	-3.4%	-1.6%
DK	-3.4%	-0.9%
LV	-3.4%	0.5%
PT	-3.4%	0.1%
RO	-3.4%	0.3%
SE	-3.1%	-1.0%
FR(8)	-2.9%	-0.3%
AT(9)	-2.7%	0.6%
SK	-2.6%	0.5%
DE	-1.5%	1.0%
HU	-0.9%	1.1%
IL(10)	3.3%	1.9%
EU21	**-2.5%**	**0,2%**

(7)The average annual change is based on the entire time series of all the ten annual numbers of serious injuries between 2010 and 2019, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: https:// bit.ly/2LVVUtY
(8)FR - 2010-2017 data.
(9)AT - 2012-219 data.
(10)IL - 2019-2019 data.

Table 11 (Fig.11). Serious injuries among young people (15-30 year olds) as a proportion of all serious injuries based on the national definition. Average of the last three years 2017-2019.

	Fig.11 % of young people (15-30 year olds) serious injuries out of all serious injuries
IT	18%
EE	21%
SI	21%
HU	23%
CH	23%
RS	23%
RO	24%
CZ	24%
ES	24%
BG	25%
PT	25%
AT	26%
SK	26%
SE	28%
DE	28%
LU	28%
NO	28%
LV	28%
HR	29%
BE	29%
LT	29%
PL	30%
DK	30%
IE	30%
IL	33%
UK	33%
EL	33%
CY	36%
FR(1)	36%
FI	40%
EU25	**28%**

EU25 average: EU27 excluding MT and NL due to insufficient data.
ETSC estimated numbers for FR for 2018 and 2019 to calculate the EU average
(1)FR - 2015-2017 data.

Table 12. National definition of a seriously injured person in a road collision corresponding to the data in Table 10.

	National definition of a seriously injured person (before introducing MAIS 3+ definition) in a road collision corresponding to the data in Table 10.
AT	Whether an injury is severe or slight is determined by §84 of the Austrian criminal code. A severe injury is one that causes a health problem or occupational disability longer than 24 days, or one that "causes personal difficulty". Police records. As of 1.1.2012, only 2 instead of 3 degrees of severities, slight, degree unknown, severe. Therefore and because of lower underreporting due to the new police recording system, the figure increased substantially
BE	Hospitalised more than 24 hours. But in practice no communication between police and hospitals so in most cases allocation is made by the police without feedback from the hospitals. (Police records)
BG	The level of "body damage" is defined in the Penalty code. There are 3 – light, medium and high levels of body damage. Prior to introducing MAIS in the Police records the first level is "light injured", the second and third is "heavy injured". The medium and high level corresponded to MAIS 3+ levels, as it is defined in the CADaS Glossary.
CY	Hospitalised for at least 24 hours. Police records. Since 2017, serious injuries based on MAIS3+ is also estimated by the Ministry of Health.
CZ	Determined by the treating doctor, if serious health harm (specified approximatelly along the types by the law) occurs. Police records.
DE	Hospitalised for at least 24 hours. Police records.
DK	All injuries except "slight". Police records.
EE	Hospitalised for at least 24 hours. Hospital data is used to find out how long the person (involved in an accident according to the police data) was hospitalised.
ES	Hospitalised for at least 24 hours. Police records.
FI	Serious injury in official statistics is defined as MAIS3+ (AAAM, Association for the Advancement of Automotive Medicine). The number of seriously injured MAIS3+ is formed by combining the official road accident participant statistics maintained by Statistics Finland and the Hospital Discharge Register (HILMO), using personal identity numbers as the link. ICD-10 codes from hospital data are converted to MAIS.
FR	Until 2004: hospitalised for at least 6 days. From 2005: hospitalised for at least 24 hours. Police records. People injured are asked to go to the police to fill in information about the collision, in particular if they spent at least 24 hours as in-patient.
EL	Injury and injury severity are estimated by police officers. It is presumed that all persons who spent at least one night at the hospital are recorded as seriously injured persons. Police records.
HR	ICD-International Classification of Diseases- used by medical staff exclusively, after admission to the hospital
HU	Serious injury which necessitates hospitalisation for more than 48 hours within seven days after occurrence or caused fracture, except for finger, toe, nose fractures; or caused cut wounds, which resulted in serious bleeding or nerve, muscle or tendon injuries; or caused injury of inner organs; or caused burn of second or third degree or burn affecting more than 5% of body surface.
IE	Hospitalised for at least 24 hours as an in-patient, or any of the following injuries whether or not detained in hospital: fractures, concussion, internal injuries, crushing, severe cuts and lacerations, several general shock requiring medical treatment.
IT	Separate statistics on seriously and slightly injuries are n/a in the Road accidents dataset. Despite that, Italy calculated the number of serious injured according to EU reccomendations (MAIS 3+) and using data based on hospitals discharge records.
LU	Hospitalised for at least 24 hours as in-patient. Police records.
LV	From 2004: hospitalised more than 24 hours as in-patient. Police records.
LT	Seriously injured person loses more than 30 % of his/her working capacity or/and his or her body is being incurably mutilated.
MT	An injury accident is classified as 'Serious' injury (referred to in Malta accident statistics as 'Grievous' injury) if the person does not recover his/her previous health condition with 30 days. Police records.
NL	Definition: "A serious road injury is a road crash casualty who has been admitted to hospital with a minimum MAIS (Maximum Abbreviated Injury Score5) injury severity of at least 2 on a scale of 6, and who has not died within 30 days from the consequences of the crash." Method: MAIS=2 or higher. Linked Police-Hospital records + remainder file + estimate of unobserved C/RC. MAIS3+ is a subset of MAIS2+; The MAIS2+ series is just appended with the new 2018 and 2019 figures in the new methodology, as EVG numbers have been 'officially' set and are only replaced on special occasions. The new method has an imporved matchoing window for data/time of crash and data/toima of hospialisation, and is now expressed in AIS2005/08 (instead of AIS1990). The total estimate is hardly different, the number of MAIS3+ is lower in the new method. see https://www.swov.nl/en/facts-figures/factsheet/serious-road-injuries-netherlands
PL	Seriously injured – a person who has suffered injuries, in the form of: a) blindness, loss of hearing, loss of speech, ability to procreate, other severe disability, severe incurable disease or long-term life-threatening illness, permanent mental illness, complete substantial permanent inability to work in the occupation or permanent, significant body disfigurement, b) other injuries causing disturbance of the functioning of a bodily organ or health disorder lasting longer than 7 days. Police records.
PT	Hospitalised for at least 24 hours. Police records.
RO	Since 2021 MAIS 3+
SE	The definition of seriously injured was updated in 2007. A serious injury is now defined as a health loss following a traffic injury reflecting that a person does not recover the previous health condition within a reasonable amount of time. This series is used in the national annual follow up and there is a goal for 2030 (-25 % compared to the mean 2017-2019). Hospital records.
SI	Any injured persons who were involved in a road traffic accident and sustained injuries due to which their lives were in danger or due to which their health was temporarily or permanently damaged or due to which they were temporarily unable to perform any work or their ability to work was permanently reduced (Penal Code of the Republic of Slovenia). Police records.
SK	Serious bodily harm or serious disease, which is a) mutilation, b) loss or substantial impairment of work capacity, c) paralysis of a limb, d) loss or substantial impairment of the function of a sensory organ, e) damage to an important organ, f) disfigurement, g) inducing abortion or death of a foetus, h) agonising suffering, or i) health impairment of longer duration. health impairment of longer duration is an impairment, which objectively requires treatment and possibly involves work incapacity of not less than forty-two calendar days, during which it seriously affects the habitual way of life of the injured party.
UK	Hospitalised for at least 24 hours or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushing, burns (excluding friction burns), severe cuts and lacerations, severe general shock. Since 2016, changes in severity reporting systems for a large number of police forces mean that serious injury figures as reported to the police are not comparable with earlier years. These systems use a list of injuries which are automatically mapped to severity, rather than relying on the judgment of the police officer.
CH	Up to 2014: Hospitalised for at least 24 hours or if the injury prevented the person from doing its daily activity for 24 hours. Since 2015: Hospitalised for at least 24 hours. Police records. Further comments: In Switzerland, injury severity is still assessed by means of a simple definition by the police force present at the scene. Nothing is known of the type and long-term outcome of injuries. In order to improve the assessment of injury severity a first step was taken: since January 2015 the definition of injury severity was further specified and the police corps were trained. Also a new category "life-threatening injury" was introduced. For a further standardization the severity scale was linked to the NACA-Codes, used by all emergency services in Switzerland
IL	1965-2012: A person injured in a road crash and hospitalized for a period of 24 hours or more, not for observation only. 2013 onwards: Police data is linked with the hospital data and any casualty found in both sources had their severity of injury defined by MAIS. If the casualty was not found in the hospital data, their severity of injury was defined by the police. Seriously injured is defined by MAIS 3+ or hospitalized for a period of 24 hours or more, not for observation only.
NO	Very serious injury: Any injury that is life-threatening or results in permanent impairment. Serious injury: Any injury from a list of specific injuries; these would normally require admission to hospital as an in-patient. Police records.
RS	Using of the ICD-International Classification of Diseases. Categorization of an injury as a "serious injury" is made on the basis of expert assessment given by doctors during admission to hospital, during hospitalization or after the hospitalization. The Republic of Serbia has not yet adopted a definition for serious injury. Police records.

	Licence type (EU recommended minimum age)				
	AM (EU recommended minimum age 16)	**A1** (EU recommended minimum age 16)	**A direct** (EU recommended minimum age 24)	**A grad.** (EU recommended minimum age 20)	**A2** (EU recommended minimum age 18)
AT	15	16	24	20	18
BE	16	18	24	22	20
BG	16	16	24	20	18
CY	17	18	24	22	20 Grad. or 24 Direct
CZ	15	16	24	21	18
DE	15	16	24	20	18
DK	15*/18**	18	24	22	20
EE	14	16	24	20	18
ES		18		20	18
FI	15	16	24	20	18
FR	14	16		20	18
EL	16	18	24	22	20
HR	15	16	24	20	18
HU	14	16	24	21	18
IE		16	24	20	18
IT	14*/ 16	16	24	20**/21^	18
LU		16		20	18
LV	14	16	24	20	18
LT		16	24	20	18
MT		18	24	22	20
NL	16	18	24	22	20
PL	14	16	24	20 (if A2 for 2 years)	18
PT	16	16	24	20	18
RO	16	16	24	20 with PC A2	18
SE	15	16	24	20	18
SI	15	16	24	20	18
SK	15	16	24	20	18
UK		17	24	21	19
GB					
CH	15	16	Only prof. use	2yrs A2	18
IL		18		21	16
NO	16	16	24	20	18
RS	16	16	24	20	18

Category AM - 2- and 3-wheel vehicles with a maximum design speed of not more than 45 km/h, as well as light quadricycles
Category A1 - light motorcycles with a cylinder capacity not mre than 125 cubic centimetres and a power rating less than 11 kW
Category A2 motorcycles with a power rating under 35 kW
Category A- heavy motorcycles without power restrictions
DK*AM-small, max 30 km/h,
DK** AM-large, max 45 km/h
IT *14 provided that no other people are transported besides the driver
IT **20 provided that the driver has held an A2 licence for at least 2 years
IT ^21 for driving tricycles for which a Category A driving licence is required

	Licence type (EU recommended minimum age)		
	B1 (EU recommended minimum age 16)	**B** (EU recommended minimum age 18)	**BE** (EU Recommended minimum age 18)
AT	not introduced	17	18
BE	not introduced	18	18
BG	17	18	18
CY	18	18	18
CZ	17	18	18
DE	not introduced	18*	18
DK		18*	18
EE	16	18	20
ES		18	18
FI		18	18
FR	16	18	18
EL		18	18
HR		18	18
HU	16	17	18
IE		17	17
IT	16	18*	18
LU			
LV	16	18	18
LT	16	18	18
MT			
NL		17	18
PL	16	18	18
PT	16	18	18
RO	16	18	18
SE	18	18	18
SI	16	18	18
SK	16	18	18
UK	17	17	17
CH	18	18*	18
IL		16 and 9 months	
NO		18	18
RS	18	17	21

Category B - passenger vehicles weighing up to 3,500 kg and seating not more than eight passengers
Category BE - a vehicle of category B towing a heavy trailer of under 3,500 kg
Category B1 - quadricycles (optional)
Country Notes
*CH: since 1 January 2021, a learner's permit can be issued to individuals who are 17 years of age. However, anyone under the age of 20 who wants to take the practical driving test must have at least 12 months of driving experience with a learner's permit. There is no such rule for persons over 20 years of age.
*DE accompanied driving from 17.
*DK accompanied driving from 17.
*IT: Those who have reached the age of 17 and are holders of an A1 or B1 licence can practice driving vehicles with a total laden mass not exceeding 3.5t, excluding the towing of any type of trailer, and respecting certain conditions relating to: specific power limits; accompanied by a driver in possession of a category B driving licence they have held for at least ten years and only if at least ten hours of a practical driving course have already been completed. In addition to the accompanying person, there can be no other passengers on the vehicle. The age limit is 21 for vehicles requiring professional qualification certificates such as KA, KB, or emergency vehicles.

	Licence type (EU recommended minimum age)							
	C1 (EU recommended minimum age 18)	**C1E** (EU recommended minimum age 18)	**C** (EU recommended minimum age 21)	**CE** (EU recommended minimum age 21)	**D1** (EU recommended minimum age 21)	**D1E** (EU recommended minimum age 21)	**D** (EU recommended minimum age 24)	**DE** (EU recommended minimum age 24)
AT	18	18	21	21	21	21	24	24
BE	18	18	21	21	21	21	24	24
BG	18	18	21	21	21	21	24	24
CY	18	18	21	21	21	21	24	24
CZ	18	18	21	21	21	21	24	24
DE	18	18	18 with CPC*	18 with CPC*	18 with CPC*	18 with CPC*	18 with CPC*	18 with CPC*
DK	18	18	21	21	21	21	24	24
EE	18	20	21	21	21	21	24	24
ES	18	18	21	21	21	21	24	24
FI	18	18	18 (CPC)	18 (CPC)	21	21	18 (CPC)	18 (CPC)
FR	18	18	21	21	21	21	24	24
EL	18	18	21	21	21	21	24	24
HR	18	18	20	21	21	21	24	24
HU	18	21	21	21	21	21	24	24
IE	18	18	18 (CPC)	18 (CPC)	21	21	21 (CPC)	21 (CPC)
IT	18	18	21	21	21	21	24	24
LU	18	18	21	21	21	21	24	24
LV	18	18	21	21	21	21	24	24
LT	18	18	21	21	21	21	24	24
MT								
NL	18	18	21	21	21	21	24	24
PL	18	18	18 (CPC)	18 (CPC)	21	21	21 (CPC)	21 (CPC)
PT	18	18	21	21	21	21	24	24
RO	18	18	21	21	21	21	24	24
SE	18	18	21	21	21	21	24	24
SI	18	18	21	21	21	21	24	24
SK	18	18	21	21	21	21	24	24
UK	18	18	21	21	21	21	18 (CPC)	18 (CPC)
CH	18	18	18	18	21	21	21	21
IL	18		19	20	21		21	
NO	18	18	21	21	21	21	24	24
RS	18	18	21	21	21	21	24	24

Category C1 - goods vehicles between 3,500 kg and 7,500 kg and for up to eight passengers
Category C1E - a vehicle of category C1 or B towing a heavy trailer; with a combined mass of up to 12,000 kg
Category C - goods vehicles weighing more than 3,500 kg and seating not more than eight passengers
Category CE - a vehicle of category C towing a heavy trailer
Category D1 - passenger vehicles built for fewer than 16 passengers and no longer than 8m
Category D1E - a vehicle of category D1 towing a heavy trailer
Category D - passenger vehicles for more than eight passengers
Category DE - a vehicle of category D towing a heavy trailer
Light trailers up to 750 kg may be towed with categories B, C1, C, D1 and D.

*DE only in Germany and within the framework of the apprenticeship

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Graphic Design: mazout.nu