# ETSC Briefing

# Reducing the minimum age for driving an HGV, Bus or Coach in the EU would increase safety risks

## November 2022

### Introduction

The European Commission is currently preparing a revision of the EU Driving Licence Directive 2006/126. A stated objective of the legislation is to enhance road safety: contributing to 'Vision Zero' and the targets of reducing road deaths and serious injuries by 50% by 2030.

Despite the road safety aim of the legislation, the road transport industry has embarked on a lobbying campaign to reduce the minimum age in the EU for lorry driving to 18, with training starting at 17.[1] ETSC argues that shortages of professional coach and truck drivers should be managed by increasing attractiveness of the sector, by improving working conditions and wages to retain current workers and attract new transport workers, not by reducing the minimum age requirements, which would increase risks to all road users.

This special briefing accompanies ETSC's recently published position paper on the revision of the Driving Licence Directive which examines a range of other issues around driver licensing and road safety.[2]

### Background

19,823 people lost their lives in road traffic in the EU in 2021.[3] According to the latest data published by the European Commission, 1 in 5 road deaths happen as a result of a collision involving either a lorry, an HGV or a bus.[4]

[1] https://www.iru.org/news-resources/newsroom/fight-global-youth-unemployment-reducing-minimum-age-professional-drivers
[2] ETSC (2022) Position on the Revision of the Driving Licence Directive https://bit.ly/3f3wjyF
[3] ETSC (2022) 16th Annual Road Safety PIN Report https://bit.ly/3stvWk2
[4] European Commission (2022), Collision matrix, Road Traffic fatalities in the EU by road users and (other) main vehicles involved in the crash in 2020, https://road-safety.transport.ec.europa.eu/statistics-and-analysis/data-and-analysis/latest-key-figures_en

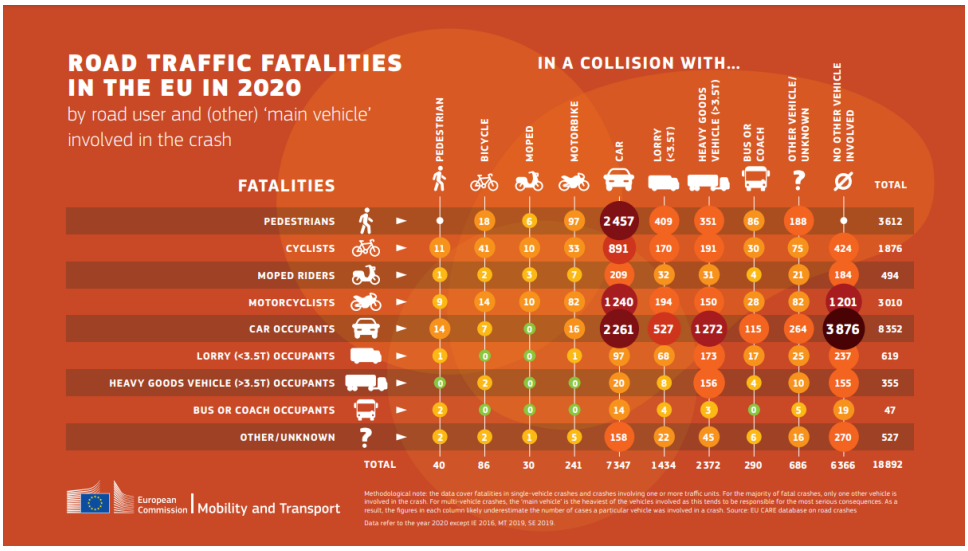



**Figure 1** - A European Commission infographic showing what vehicles kill the most road users – 2020 data

A 2020 ETSC PIN report on the safety of goods vehicles in the EU showed that per billion km travelled, HGVs are considerably more likely to kill other road users than non-goods vehicles.[5]

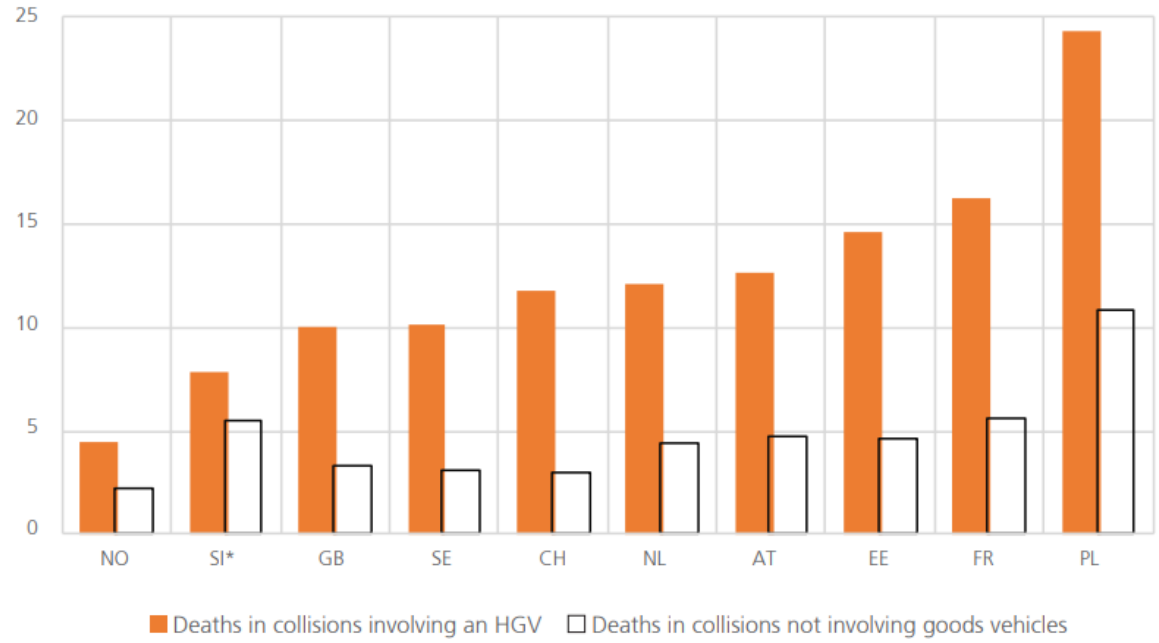



**Figure 2** – Reported road deaths in collisions involving HGVs per billion km travelled by HGVs and road deaths in collisions not involving goods vehicles per billion km travelled by non-goods vehicles. Average for the last three years for which the data were available. *SI – white bar shows deaths not involving HGVs per km travelled by all motor vehicles, including LGVs but excluding HGVs. Note: in this figure, deaths in collisions not involving goods vehicles include deaths in reported bicycle collisions with no motorised vehicle involved, but these form only a small proportion of deaths in collisions not involving goods vehicles.

Buses and coaches remain the safest mode of road transport for their occupants. Yet in all the nine ETSC PIN countries that record the distance travelled by vehicles, the risks posed by bus and

[5] ETSC (2020) PIN Flash report 39, How to improve the safety of goods vehicles in the EU? https://etsc.eu/how-to-improve-the-safety-of-goods-vehicles-in-the-eu-pin-flash-39/

coaches to other road users are higher compared to the risks posed by all vehicles taken together.[6]

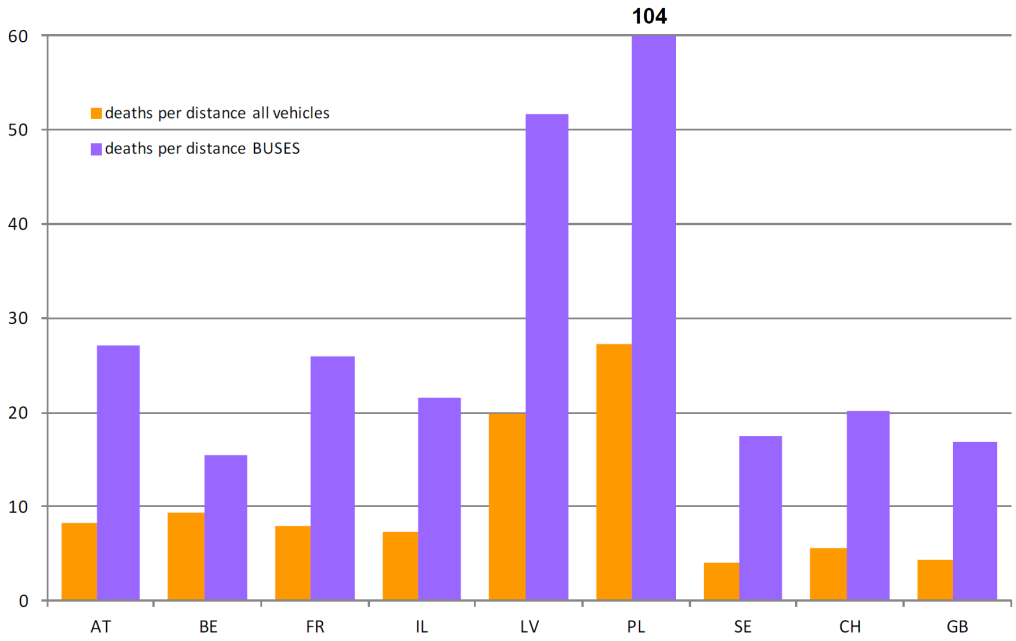



**Figure 3** - Road deaths in collisions with a bus, coach or trolley per billion vehicle km travelled by those vehicles (purple bars) with corresponding rate for all vehicles (orange bars). Average for the last three years for which the data were available. PL average for 2008-9 period.

The road transport industry is calling for the reduction of the minimum age for lorry driving to 18, with training starting at 17.[7] The road transport industry has not offered statistical evidence to support its claim that "the accident rate is even higher in countries where the minimum age is 21 than in those where the minimum age is 18".[8]

Appropriate driver licensing rules can help prevent deaths and injuries but, as this briefing argues, reducing the minimum age for solo driving for any type of motor vehicle, but in particular HGVs and buses, would create additional risks.

## Current age framework in EU Member States

Minimum ages for obtaining different categories of driving licence are set in the EU Driving Licence Directive but there is also some flexibility, in the form of 'recommended' minimums. Regarding the largest vehicles, only a few EU countries diverge from the minimum ages proposed in the Directive of 21 years for category C and 24 years for category D.

[6] ETSC PIN Flash (2013) Towards Safer Transport of Goods and Passengers in Europe, https://bit.ly/3TPpY9l

[7] https://www.iru.org/news-resources/newsroom/fight-global-youth-unemployment-reducing-minimum-age-professional-drivers

[8] Ibid N.b. The source for this claim is labelled as "Comparison of accident data from the CARE database, 2017, European Commission", but this analysis is not available to the public and has not been published.

| | 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* | 21 | 18 with CPC* | 21 | 18 with CPC* | 24 |
| 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 |

**Table 1 -** Age for obtaining C and D category driving licence in PIN countries
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 only within the framework of the apprenticeship, otherwise ages are the same as the EU recommended
^ES 18 only CPC through ordinary initial qualification
^^ES 18 only CPC through ordinary initial qualification and within the national territory until the age of 21
^^^ES 18 only CPC through ordinary initial qualification within the national territory until the age of 21 without passengers or limited distances of no more than 50 km with passengers; 20 only CPC through ordinary initial qualification within the national territory until the age of 21; 21 only CPC through ordinary initial qualification or only CPC through accelerated initial qualification limited distances of no more than 50 km with passengers.; 23 only CPC through accelerated initial qualification

**Young drivers and road risk**

The younger a person starts unrestricted solo driving, the more likely it is that they will have a fatal collision.[9] Thus, as a first step, it is extremely important to set an appropriate minimum age for first unrestricted solo driving.[10]

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.[11]

While young people are a high-risk group in themselves, most young people do not deliberately drive unsafely.[12] The risks associated with young drivers and riders stem from inexperience, immaturity and lifestyle linked to their age and gender.[13] Young people undergo significant biological and social changes between the ages of 15 and 25.

This figure for car drivers[14] show a decrease in crash risk with age and experience.

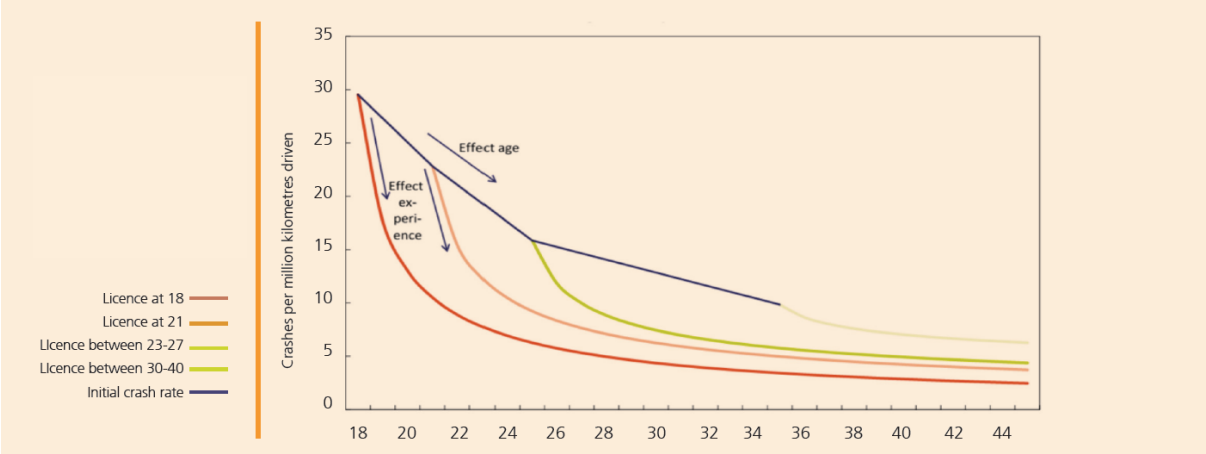



**Figure 4** – Decrease in the crash rates of novice drivers starting their driving career early and novice drivers starting their driving career later in life. Source: https://etsc.eu/reducing-casualties-involving-young-drivers-and-riders-in-europe/

[9]De Craen (2010) The X-factor: A longitudinal study of calibration in young novice drivers https://bit.ly/3ylTR63 or more recent SWOV (2014) Brain development and crash risk of young novice drivers; A literature study https://bit.ly/3yZrZ8W In ETSC PIN Flash Report 41 (2021) Reducing Road Deaths Among Young People Aged 15 to 30 https://etsc.eu/reducing-road-deaths-among-young-people-pin-flash-41/

[10] OECD (2006), Young Drivers, The road to safety, Summary document, https://bit.ly/2URvn6s

[11]OECD (2015), Improving Safety for Motorcycle, Scooter and Moped Riders, https://goo.gl/kAwsjq

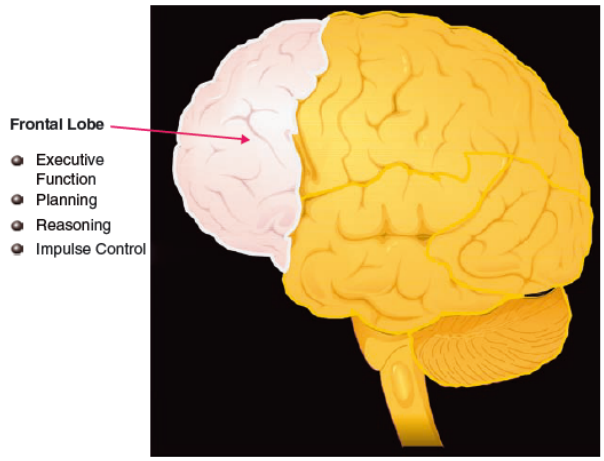
[12] OECD (2006) Young Drivers, The road to safety, Summary document, https://bit.ly/2URvn6s

[13] European Commission (2018), Novice Drivers https://bit.ly/3vQwLCO

[14] Vlakveld, W. (2005), featured in SWOV (2016) Fact Sheet, 18-24 year olds: Young Drivers, https://goo.gl/d60PeM cited in ETSC YEARS Report (2016) Reducing casualties involving young drivers and riders in Europe https://bit.ly/3Szt3Zm

Brain development is ongoing throughout this period and is not completed until well into the 20s.[15] Consequently, when young people are learning to drive, their cognitive abilities are still not completely developed. This affects their perception of, and attitudes towards, risk. Moreover, the risk of young people is significantly higher if they have not completed their developmental evolution such as detachment from the parental home or finding friendships and acceptance amongst peer.[16] Young people are not only maturing physiologically, but socially too. For example they gain more independence and their peers become increasingly important.[17] 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.[18] 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.

The figure below depicts brain areas and functions showing significant development during adolescence. The frontal lobe (in pink) continues to mature into the mid-20s and includes sub-areas the dorsolateral and ventromedial areas which are associated with impulsivity, thinking ahead, regulation of emotions, weighing risks and other decision factors.[19] All highly relevant to learning to drive.




Source: https://journals.sagepub.com/doi/10.1111/j.1529-1006.2006.00026.x

[15] Brijs K.; Ruiter R.; Brijs T. (2009), Naar een evidence-based en doelgroep-specifieke verkeerseducatie, Published in: Brijs, Kris & Ruiter, Rob & Brijs, Tom (Ed.) Jaarboek Verkeersveiligheid, p. 92-100. https://goo.gl/GYIgt3

[16] DVR Schritenreihe (2022) Verkehrs und Fahrzeugbezogene Einsttellungen von Jungen Meschen im Uerbergang in die Automobilitaet.

[17] European Commission webpage: https://bit.ly/3zoJi2d

[18] Twisk D., Stelling A. (2014), Young people's risky behaviour requires integral approach, SWOV, p4. https://goo.gl/Y1GjNF

[19] Reyna, V. F., & Farley, F. (2006). Risk and rationality in adolescent decision making: implications for theory, practice, and public policy. Psychological science in the public interest, 7(1), 1-44. https://journals.sagepub.com/doi/10.1111/j.1529-1006.2006.00026.x

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.[20]

## What the available data show

There is little data available on the specific case of young HGV drivers, because most countries do not permit this age group to drive this category of vehicle.

Overall data for young car drivers and young motorbike riders show how disproportionately they show up in crash figures.

The available data also show a higher risk rate for younger HGV drivers.[21] Driver misconduct of HGV drivers per 1000 participants involving personal injury in 2019 in Germany shows higher involvement of the 18-20 year-old age group compared to the 21-24 and 25-34 age groups in 'keeping safe distance' (dark blue), 'mistake in turning', reversing exiting and entering', 'inappropriate speed'.[22] In particular, 'keeping a safe distance' is one risk behaviour that shows inexperience.

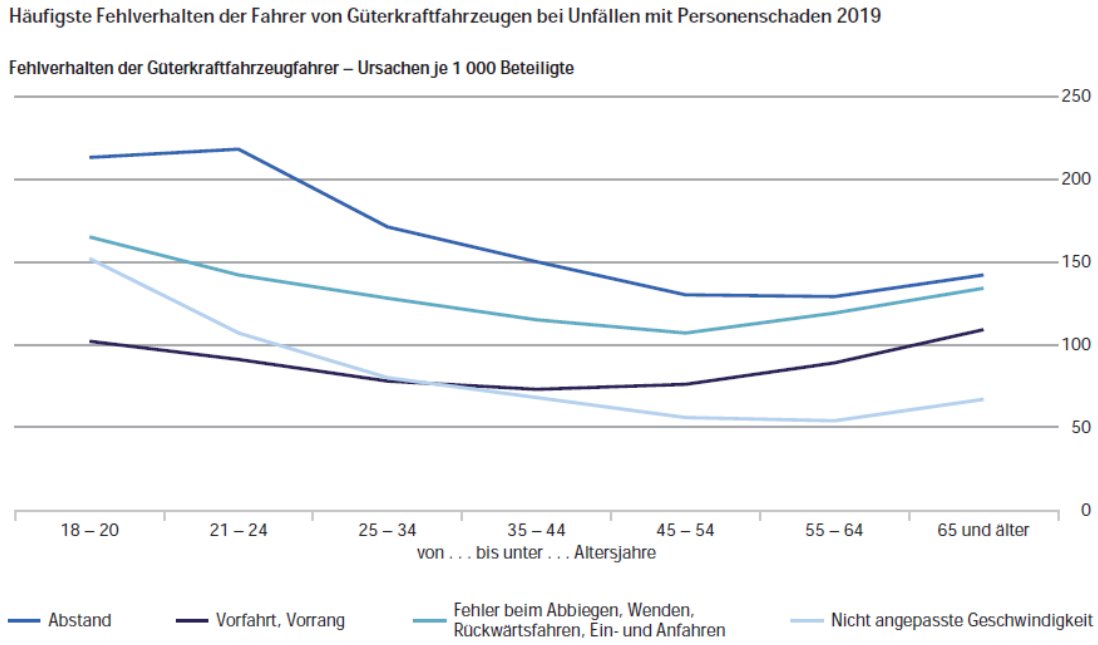



**Figure 5** - Source: Destatis.de https://bit.ly/3EHHSFG

[20] SWOV (2014) Brain development and crash risk of young novice drivers; A literature study https://bit.ly/3yZrZ8W

[21] The highest crash risk of all age groups for truck drivers younger than 25 (USA, Cantor et al., 2010) The most self reported crashes and the most self reported violations of the youngest truck drivers (New Zealand, Sullman et al., 2002)

[22] Destatis Verkehrsunfälle Unfälle von Güterkraftfahrzeugen im Straßenverkehr 2019 P.78

Recent research by the German Insurance Association shows that young HGV drivers aged 18-20 years cause a higher number of collisions resulting in personal injury, in relation to the number of licences registered for that age group, compared to all other HGV age groups. That proportion decreases considerably up to 24 years and remains stable in adult and older age groups.[23]

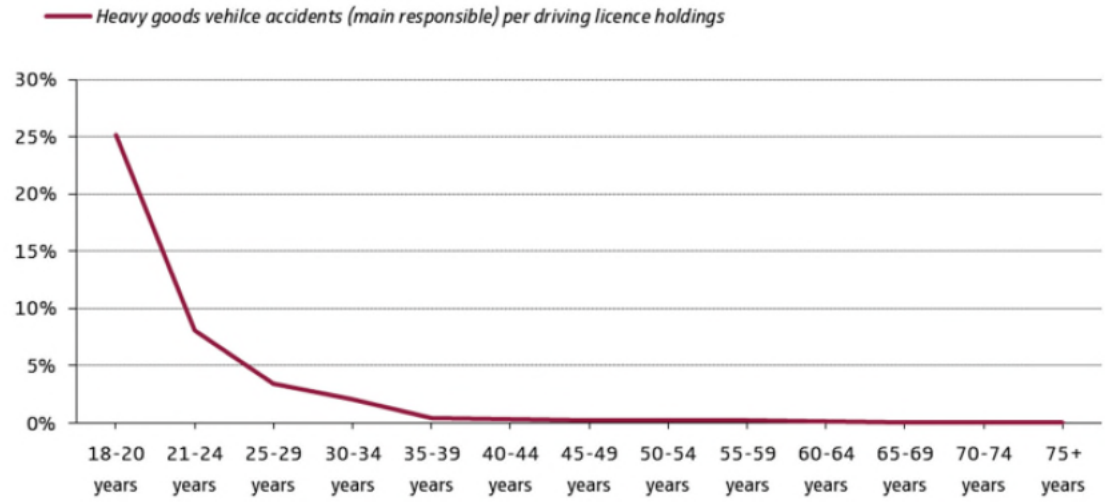



**Figure 6** - Accidents of heavy goods vehicle drivers as main responsible for accidents causing personal injury (2017 to 2019), per driving licence holdings per age (average 2017 to 2019); (all C categories).[24]

A similar pattern emerges for bus drivers.[25] The results also show a similar pattern of higher collision risk for young professional drivers as for young non-professional car drivers. There is no increase in the share of professional drivers causing a collision in older age groups unlike that seen among the general driving population.[26]

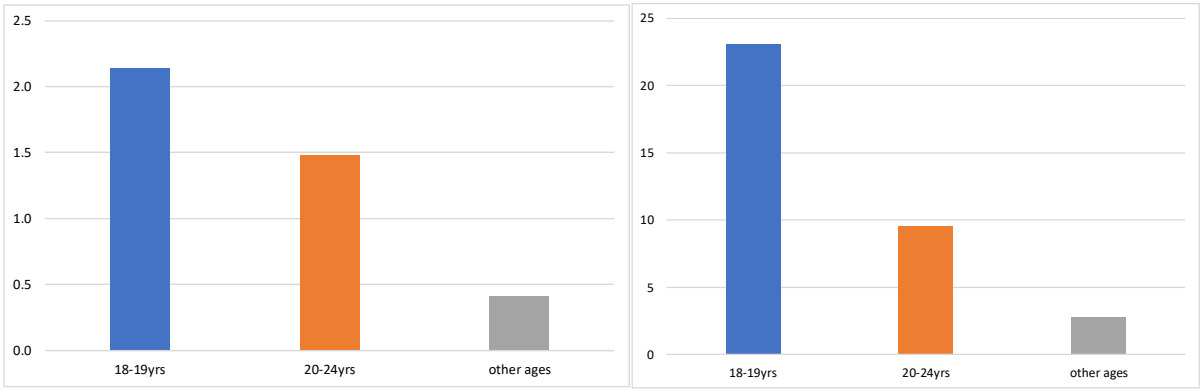



**Figure 7** - Ratio of truck + bus drivers involved in fatal road collisions per 10,000 licences and involved in personal injuries collisions per 10,000 licences in Finland. Source Data from Statistics Finland provided to ETSC by the ETSC PIN Panellist for Finland.

Please note that observations especially in fatal collision data are small numbers. Moreover, being involved in a collision does not imply

[23] German Insurance Association (GDV) Comment on the Driving Licence legislation ex-poste evaluation 2022 Sources: Federal Statistical Office and Central Register of Driving Licences
[24] Ibid.
[25] Ibid.
[26] Ibid.

guilt. Unfortunately, it is not possible to know the guilty/non guilty ratio from data on personal injury collisions provided by Statistics Finland.

Data provided by Statistics Finland (sum of the years 2014 to 2020, show that the involvement in collisions of truck and bus drivers aged 18-19 in proportion of the number of driving licences for the same age group, is considerably higher with respect to other age groups and it decreases with increasing age of the driver (23 for personal injuries and 2 for fatal collision every 10,000 driving licences for the age group 18-19, 9.6 and 1.5 for the age group 20-24 and 2.8 and 0.4 for other age groups).

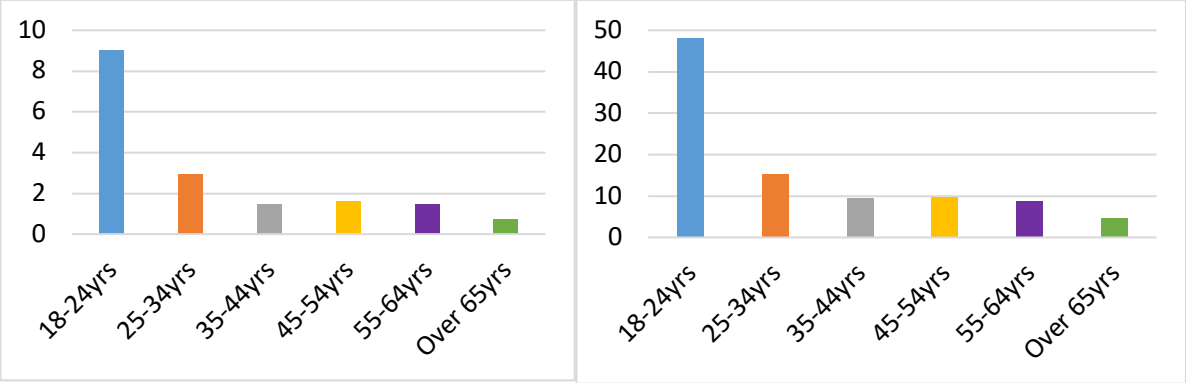



**Figure 8** - Poland: Ratio of truck + bus drivers involved in fatal road collisions per 10,000 licences and involved in personal injuries collisions per 10,000 licences. Data for the years 2019-2020 (sum). Source: Data on road accidents: Police General HQ Database SEWiK, Data on licenses by age group: Central Register of Vehicles and Drivers. Prepared by Motor Transport Institute, Polish Road Safety Observatory, October 2022 for ETSC

In Poland, data provided by the Motor Transport Institute (ITS) show the same trend. The involvement of truck and bus drivers aged 18-24 in collisions, in proportion to the number of driving licences for the same age group, is higher with respect to other age groups and it decreases with increasing age of the driver (39 involved in a collision, 10 involved in a collision with deaths, 53 in a collision with serious injuries every 10,000 driving licences for the age group 18-24, 12, 3 and 15 for the age group 25-34, 7.5, 1.5 and 9 for the age group 35-44, 7.6, 1.6, 9.8 for the age group 45-54, 7, 1.4, 8.8 for the age group 55-64 and 3.8, 0.7 and 4.7 for people older than 65). The data are an average for collisions in the years 2019 and 2020.

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.[27] In another study in Australia the exposure to the risk of a crash represented by distance travelled found that drivers of professional

[27] Sullman et al (2002) Aberrant driving behaviours amongst New Zealand truck drivers https://bit.ly/3AN2bx7

vehicles younger than 27 years are at greater risk of traffic collisions.[28]

### ETSC Recommendations

- Improve working conditions to retain current workers and attract new transport workers to counter driver shortages.
- Do not allow the lowering of the minimum age for any road users.

[28] Guest, Boggess, and Duke (2014) Age related annual crash incidence rate ratios in professional drivers of heavy goods Vehicles https://bit.ly/3yBgbuT

## FOR FURTHER INFORMATION

See ETSC's recently published position paper on the revision of the Driving Licence Directive.[29]

Ellen Townsend, Policy Director
ellen.townsend@etsc.eu
+32 2 230 41 06

European Transport Safety Council
20 Avenue des Celtes B-1040 Brussels
www.etsc.eu
Follow us on twitter: @etsc_eu

The European Transport Safety Council (ETSC) is a Brussels-based independent non-profit making organisation dedicated to reducing the numbers of deaths and injuries in transport in Europe.

[29] ETSC (2022) Position on the Revision of the Driving Licence Directive https://bit.ly/3f3wjyF