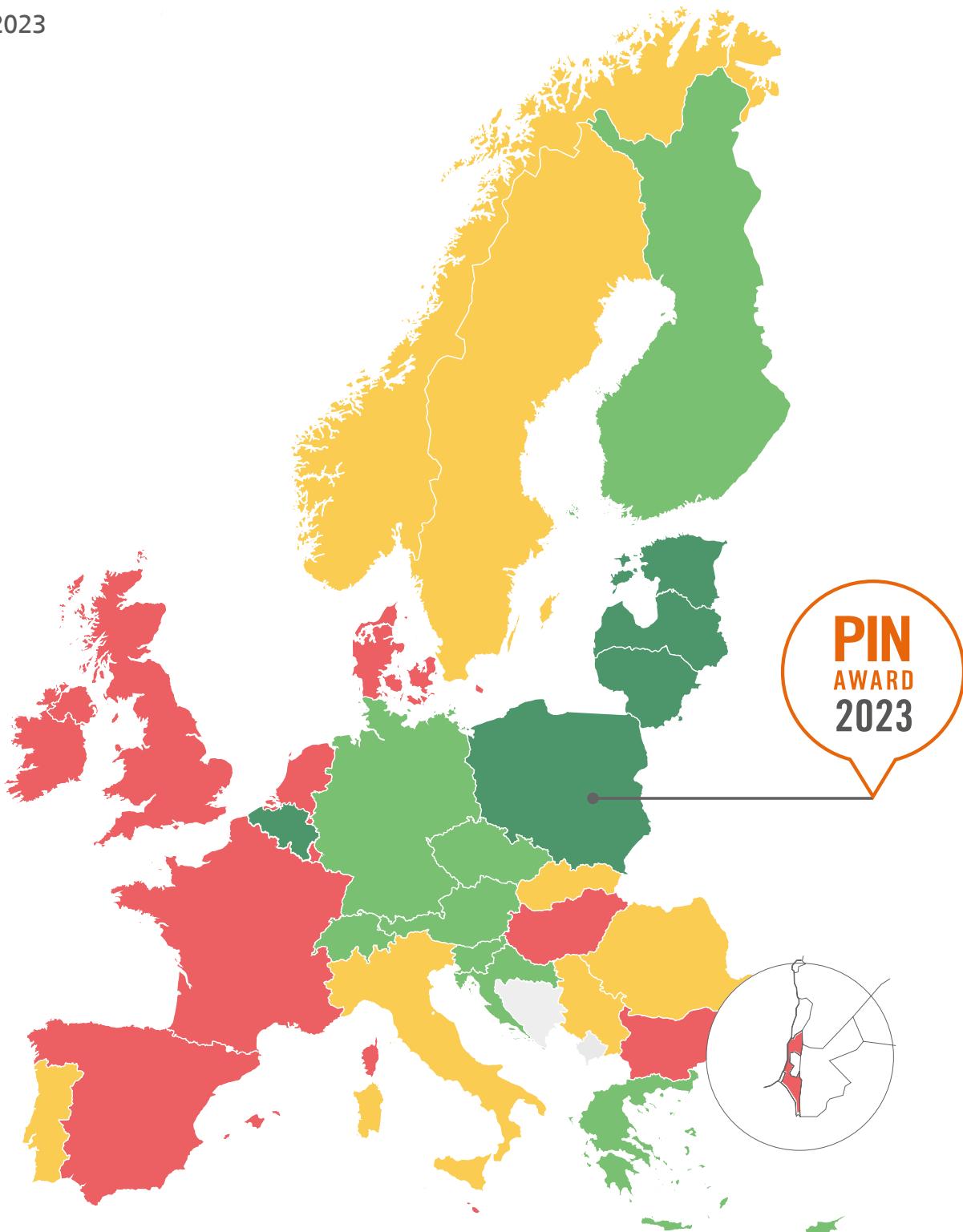


# RANKING EU PROGRESS ON ROAD SAFETY

17<sup>th</sup> Road Safety Performance Index Report

June 2023



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# RANKING EU PROGRESS ON ROAD SAFETY

17<sup>th</sup> Road safety performance index report

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June 2023

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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.

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## 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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# FOREWORD

Antonio Avenoso,  
ETSC Executive Director



There is a story about Harold Macmillan, a former British Prime Minister, that when asked by a journalist during a particularly difficult period, what the greatest challenge was to his administration, he replied: "Events, dear boy, events".

Six years ago, on a sunny day in Valetta, Malta, I watched as 28 EU transport ministers formally adopted a declaration calling on the EU to cut road deaths and serious injuries in half over the decade 2020-2030. "What will be the greatest challenge to achieving that target?", a journalist might have asked that day. "Events" might very well have been the reply.

For, who of us could have foreseen, in 2017, the dramatic impact of the coming Covid-19 pandemic?

In six years, our streets have also changed in ways that we might not have predicted. In 2017, shared e-scooters were a curiosity, one we might have expected to fade away as 'hoverboards' had before them. Electric cars and vehicles with advanced driver assistance systems were still a relatively rare thing too.

And while the city of Valencia created a 30 km/h zone in its historic centre in 2015, who would have imagined this would become the default in urban areas across the whole of Spain just six years later?

So three years in to the new target period, how is Europe doing? And what has the impact been of all these changes?

One thing now seems obvious: the Covid years of 2020 and 2021 were something of a blip. Taking Europe as a whole, there was a massive reduction in traffic, and with that came a very significant reduction in road deaths. In 2022, with life mostly back to normal, deaths increased by 4% compared to the previous year, but were still 9% below 2019, the last full year before Covid struck.

While that is a positive evolution, it is certainly not enough to hit the 2030 target, which requires an average annual decrease of 6.1%. That translates to a 17.2% decrease over the last three years, not the 9% we actually saw.

In short, if things stay as they are, Europe will not reach its target. The European Union and national governments will have to redouble their efforts to tackle old challenges and new ones.

One consequence of the Covid lockdowns appears to be a degradation of road user behaviour, despite lower levels of traffic. Speeding, drink, drug and distracted driving aren't going away. Enforcement needs to be increased, not cut back.

The cycling boom that Covid inspired in some cities also needs a serious follow-up. More cyclists are good for healthy populations, but without meaningful investments in separated infrastructure, lower speeds and other changes, absolute numbers of cyclist deaths will also likely rise. E-scooters, according to the evidence we have seen, appear to be more risky to their riders than bikes – and should be better regulated.

What the impact of electrification will be is hard to say. Replacing internal combustion engine vehicles with similar but heavier and quicker electrified models could make road safety worse.

Whether or not driver assistance systems with names like Autopilot and Drivepilot actually improve safety is not at all clear. Europe has made no serious attempt to require incident reporting or to require forensic crash investigations with access to in-car data. This needs to change, with supervision by a regulatory agency.

The EU also needs to move further and faster on road safety policy. The ‘road safety package’, announced in March, makes some positive changes to driver licensing and could improve cross-border enforcement. The new initiative to enable cross-border recognition of driving bans is also welcome. It’s now up to Member States and the European Parliament to ensure some negative elements are removed and the package’s potential road safety benefits aren’t watered down on the often-treacherous road to becoming law.

What is clear to me is that cutting road deaths in half by 2030 will require enormous political will and reliance on the Safe System approach, which tackles all aspects of road safety, including driver behaviour, vehicle safety, infrastructure design, enforcement and post-crash care.

And policymakers in 2023, as ever, need to remember that plans may need to change over the years ahead. New technologies, new ways of working, even whole new modes of transport can come along. Road safety strategies need to be adaptable. “Events, dear boy, events.”



# EXECUTIVE SUMMARY

There were 20,678 deaths on EU roads in 2022, a collective increase of 4% compared to 2021.

Out of the 32 countries monitored by the PIN programme, only 13 registered a decrease in road deaths in 2022, compared to 2021. Slovenia was ranked first with a 25% reduction, followed by Latvia with 23% and Lithuania and Cyprus with 18%.

Road deaths increased in 19 PIN countries between 2021 and 2022.

The EU has set a target to halve the number of road deaths by 2030, based on their level in 2019. Road deaths in the EU27 in 2022 were reduced collectively by 9% compared to 2019. However, considering an average annual decrease of 6.1% is needed to make progress towards the 2030 target, it should have been a 17.2% decrease instead.

Looking back over the last ten years, the overall progress in reducing road deaths on EU roads was good in 2012 and 2013, with an 8% decrease. But the positive start was followed by six years of stagnation with only a 6% reduction over the 2014-2019 period.

In 2020 there was an exceptional drop of 17% compared to 2019. However, this result was strongly related to travel restrictions across Europe due to the Covid-19 pandemic. 2021 also saw a consistent drop of 13% with respect to 2019, but the number of road deaths increased by 5% with respect to 2020, influenced by a gradual relaxation of travel restrictions and lockdown requirements across Europe.

39,553 road deaths have been prevented in the EU over the period 2013-2022 compared with the number that would have been recorded if each Member State had continued to record the same number each year as in 2012. 40,987 more lives could have been saved if the annual reduction of 6.7% needed to reach the EU 50% reduction target in 10 years, had been reached.

The total value of the human losses avoided by reductions in road deaths in the EU27 for 2022

compared to 2012 is estimated at approximately €15 billion, and the value of the reductions in the years 2013-2022 taken together compared with 2012 is about €104 billion.

If the EU had reduced deaths at a constant annual rate of progress of 6.7%, the greater reductions in deaths in the years 2012-2021 would have increased the valuation of the benefit to society by about €108 billion to about €212 billion over those years.

The progress in reducing serious road traffic injuries over the last decade in the EU was poor, especially in comparison with the reduction in road deaths. There has been only a 14% reduction over the period 2012-2022. The exact number of people seriously injured in road collisions is not yet known in all EU countries.

Mortality in the PIN countries differs by a factor of almost four between the groups of countries with the highest and the lowest mortality. Norway is the safest PIN country for road users with 21 road deaths per million inhabitants in 2022. Sweden follows Norway with 22 deaths per million inhabitants. In the UK, Denmark, Switzerland, Ireland, Germany and Finland, road mortality is below 35 deaths per million inhabitants. In the EU27, the overall level of road mortality was 46 deaths per million inhabitants in 2022 compared to 54 per million in 2012. The highest mortality is in Romania and Serbia with 86 and 83 road deaths per million inhabitants respectively. In two countries – Malta and the Netherlands – road mortality is higher in 2022 than in 2012.

The EU Road Safety Policy Framework 2021-2030 introduced eight Key Performance Indicators to measure the overall safety performance of EU Member States and measures on how to reach the strategy's targets. The KPIs were further detailed in the EU Strategic Action Plan on Road Safety.

There is some way to go in terms of developing EU road safety KPIs, collecting the data and setting KPI targets. The KPI on safety belts seems the most widely collected, with 30 PIN countries reporting they collect or plan to collect data in the upcoming year for this KPI. Likewise, KPIs for speed compliance and the use of protective equipment are or soon will be widely used. The infrastructure, post-crash care and vehicle safety KPIs seem the least well-advanced.

On 1 March, 2023, the European Commission published proposals for three pieces of road safety legislation: the revision of the EU driving licence directive, the revision of the cross-border enforcement (CBE) directive and a proposal for a new EU directive on driving disqualifications. These proposals were severely delayed, but it is hoped that agreement can still be reached before the end of the current EU political mandate (2019-2024) to ensure the lifesaving potential is maximised within the EU Road Safety Policy Framework 2021-2030 timeframe. It should be noted that not all elements of the proposed package will improve road safety.

Country efforts will be critical across Europe for the implementation of the Safe System approach and in the EU for achieving the 2030 targets. Of the 32 PIN countries, 20 have reported having a new road safety strategy in place, and in a further five, the plans are under development.

Poland is the winner of the 2023 ETSC PIN Award, having cut road deaths by 47% over the period 2012-2022.

### Note on countries covered by the ETSC PIN programme

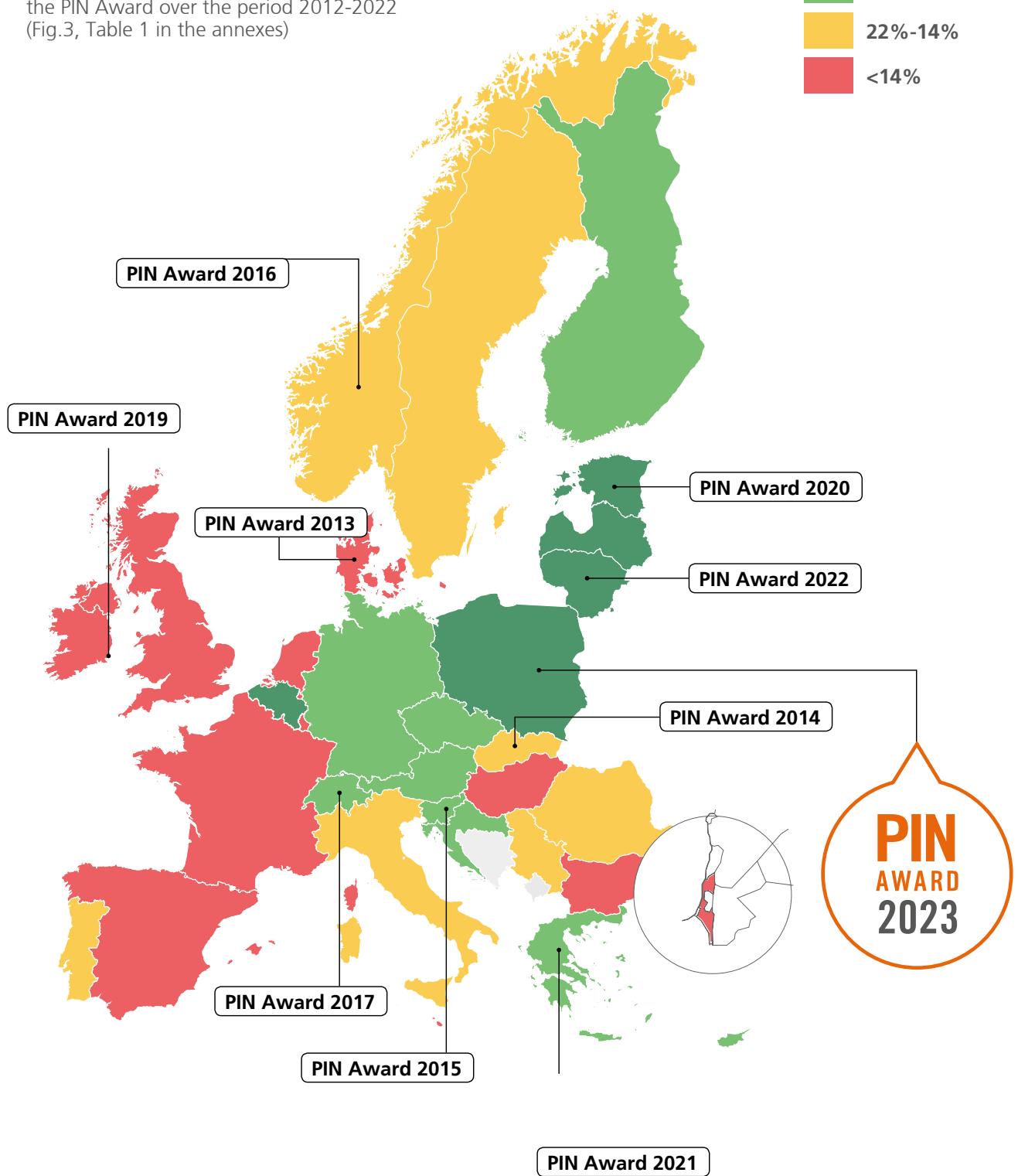
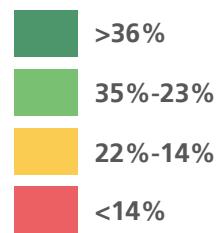
This report includes aggregate data analysis covering the 32 countries that participate in ETSC's Road Safety Performance Index (PIN) programme. They are:

- 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 agreed to, and will work towards, the aim of achieving the common target to halve the number of road deaths and serious injuries in the EU over the period 2020-2030. This target followed an earlier target set in 2010 to halve the number of road deaths by 2020.

**MAP 1:**

Relative change in road deaths between 2012 and 2022 and recipient countries of the PIN Award over the period 2012-2022 (Fig.3, Table 1 in the annexes)



## MAIN RECOMMENDATIONS TO NATIONAL GOVERNMENTS

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- Adopt and implement the Safe System approach to road safety by addressing all elements of the road transport system in an integrated way and adopting shared overall responsibility and accountability between system designers and road users.<sup>1</sup>
- For countries who have not yet done so, adopt road safety plans, including national targets for reducing serious injuries based on the MAIS3+ standard alongside the reduction of road deaths and quantitative sub-targets based on performance indicators.
- Seek to accelerate progress by all available means, including applying proven traffic law enforcement strategies according to the EC Recommendation on Enforcement.<sup>2</sup>
- Apply safe speed limits in line with the Safe System approach for the different road types such as 30 km/h on urban roads, 70 km/h on undivided rural roads and a top speed of 120km/h or less on motorways.<sup>3</sup>
- Look for synergies between safety goals, including in speed management, and goals for energy saving and the climate.<sup>4</sup>
- Provide sufficient government funds to allow the target-oriented setting of measures and set up financing and incentive models for the regional and local levels.
- Use the evidence gathered to devise and update relevant policies. Make the choice of measures based on sound evaluation studies and, where applicable, cost-effectiveness considerations, including serious injuries, in the impact assessment of countermeasures.

- Conduct a thorough qualitative assessment of current road safety strategies to evaluate the levels of implementation and effectiveness of the foreseen road safety measures in reaching road safety targets.
- In EU Member States, fast-track data collection for the Key Performance Indicators included in the EU Road Safety Policy Framework 2021-2030 and report them to the European Commission.
- In EU Member States, prepare to implement network-wide road safety assessment and meet the deadline of 2024 set by the 2019 Road Infrastructure Safety Management Directive.<sup>5</sup>
- Support cities in their efforts to introduce Sustainable Urban Mobility Plans (SUMPs) which include road safety measures and targets.

## MAIN RECOMMENDATIONS TO THE EUROPEAN COMMISSION

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- Create a new EU agency to support safe, smart and sustainable road transport operations.<sup>6</sup>
- Within the context of the implementation of the EU Road Safety Policy Framework 2021-2030<sup>7</sup>:
- Redouble road safety action in light of the mid-term review of the framework expected in 2025.
  - Continue to support Member States in collecting harmonised data for road safety KPIs.

<sup>1</sup> ITF-OECD (2008), Towards Zero, Ambitious Road Safety Targets and Safe System Approach, <https://bit.ly/2Mvk1QL>

<sup>2</sup> EC Recommendation 2004/345 on Enforcement in the Field of Road Safety, <http://goo.gl/Vw0zhN>

<sup>3</sup> ETSC (2019), PIN Flash 36, Reducing Speeding in Europe <https://bit.ly/38ueB1q>

<sup>4</sup> European Commission (2022), Communication EU 'Save Energy' <https://bit.ly/3LErqqb>

<sup>5</sup> Directive (EU) 2019/1936 on road infrastructure safety management, <http://bit.ly/2XTGwkD>

<sup>6</sup> ETSC (2018) Briefing: 5th EU Road Safety Action Programme 2020-2030, <https://bit.ly/2LuTDBW>

<sup>7</sup> European Commission (2019), Commission Staff Working Document, EU Road Safety Policy Framework 2021-2030, Next steps towards "Vision Zero", <https://bit.ly/3vgWTHt>

## PART I

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# PROGRESS IN REDUCING ROAD DEATHS IN 2022, AND OVER THE PREVIOUS DECADE



# INDICATOR

The EU has set a target to halve the number of road deaths by 2030, based on their level in 2019. In this chapter, we track progress using, as the main indicators, the relative changes in the numbers of people killed on the road between 2021 and 2022 (Fig.1), between 2019 and 2022 (Fig.2) and between 2012 and 2022 (Fig.3 and Fig.4).

A person killed in traffic is someone who was recorded as dying immediately or within 30 days from injuries sustained in a collision on a public road. We also use road mortality expressed as the number of road deaths per million inhabitants - as an indicator of the current level of road safety in each country (Fig.6). Additionally, the risk expressed as the number of road deaths per billion motor vehicle km travelled is presented in countries where the data are available (Fig.7).

The data used are from national statistics supplied by the PIN panellist in each country. Data for Malta and Romania have been provided by CARE. The numbers of road deaths in 2022 in Belgium, Czechia, Germany, Denmark, Finland, France, Greece, Italy, Spain, Hungary, Ireland, Malta, Portugal and Romania are provisional as final numbers were not yet available at the time this report went to print. Annual numbers of deaths in Luxembourg and Malta are particularly small and are, therefore, subject to substantial annual fluctuation. Annual numbers of deaths in Cyprus and Estonia are also relatively small and may be subject to considerable annual fluctuation. The UK data for 2022 are the provisional total for Great Britain for the year 2022 together with Northern Ireland's total for the calendar year 2022.

The full dataset is available in the annexes. Population data were retrieved from the EUROSTAT database.

# 01

## 1.1 A 4% INCREASE IN ROAD DEATHS IN THE EU BETWEEN 2021 AND 2022

Out of the 32 countries monitored by the PIN programme, only 13 registered a decrease in road deaths in 2022, compared to 2021 (Fig.1). Slovenia was ranked first with a 25% reduction in the number of road deaths between 2021 and 2022. It is followed by Latvia with 23% and Lithuania and Cyprus with 18%. Road deaths increased in 19 PIN countries between 2021 and 2022. The largest increases can be found in Malta and Luxembourg. In Malta, road deaths increased by 189% and in Luxembourg by 50%.

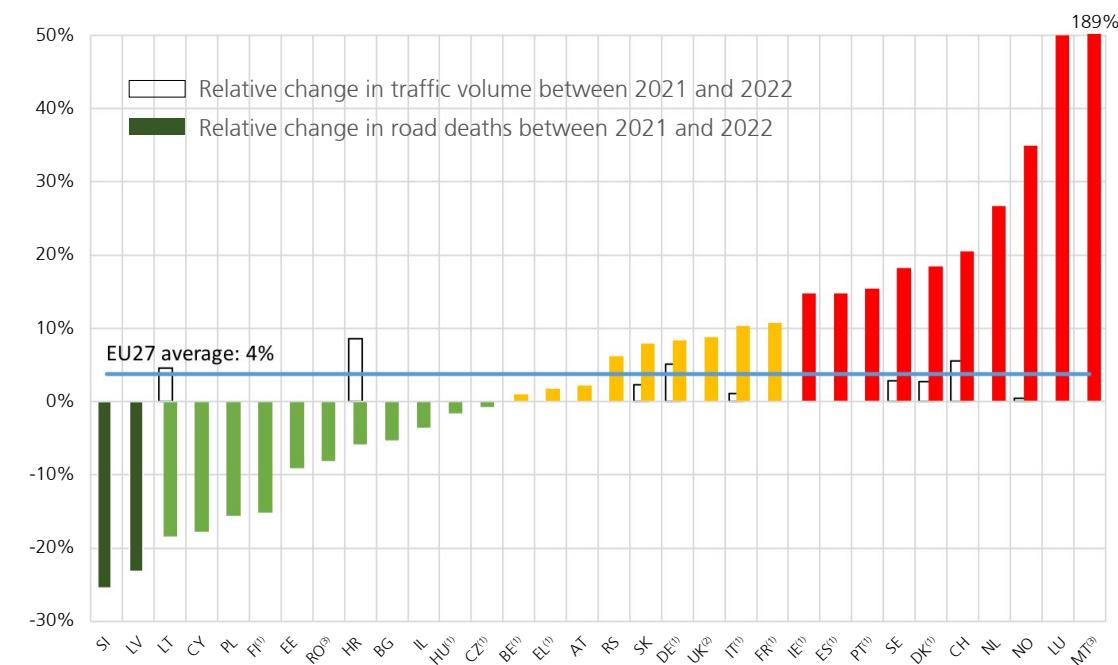
Road deaths in the EU27 in 2022 increased collectively by 4% compared to 2021. In order to reach the 2030 EU target, road deaths should decrease by 6.1% on average in each year of the 11 years between 2019 and 2030.

In Figure 1 we can see that the number of km driven by motor vehicles increased compared to 2021 in all nine countries that were able to provide data. In seven countries – Slovakia, Germany, Italy, Sweden, Denmark, Switzerland and Norway – road deaths increased by a greater degree than traffic volumes. In Lithuania and Croatia road deaths decreased while traffic volumes increased.

**Figure 1. Relative change in road deaths between 2021 and 2022 and corresponding percentage change in traffic volume.**

<sup>(1)</sup>National provisional estimates used for 2022, as final figures for 2022 were not available at the time this report went to print. <sup>(2)</sup>UK data for 2022 are the provisional total for Great Britain (1695) combined with the total for Northern Ireland (55) for the calendar year 2022.

<sup>(3)</sup>CARE provisional data. The annual number of deaths in LU and MT are particularly small and, therefore, subject to substantial annual fluctuations. Annual numbers of deaths in CY and EE are relatively small and, therefore, may be subject to relatively strong annual fluctuations.



Note: traffic volume data collection methodologies differ between countries and are not comparable. Some data on traffic volumes cover only part of the road network. LT – traffic volume data on main roads.

## 1.2 A 9% REDUCTION IN ROAD DEATHS IN THE EU SINCE 2019

Out of the 32 countries monitored by the PIN programme, 22 registered a decrease in road deaths in 2022, compared to 2019 (Fig.2). Lithuania and Poland lead the ranking with a 35% reduction. They are followed by Cyprus with a 29% decrease and Denmark with 23%. The number of road deaths increased in 10 PIN countries

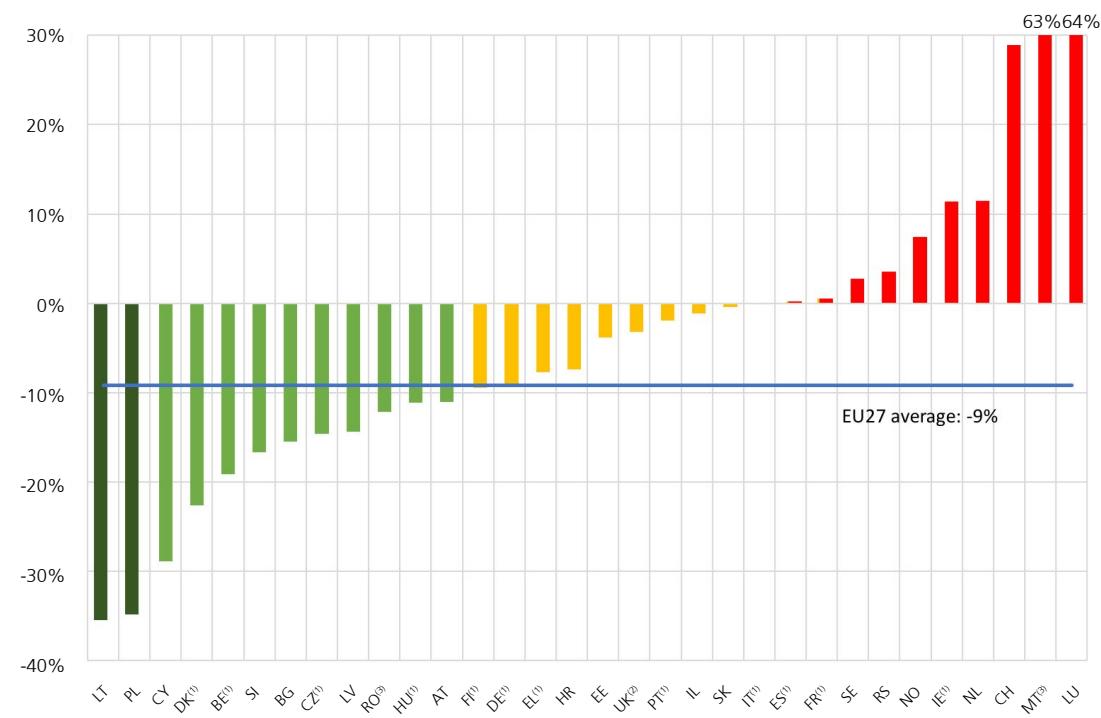
between 2019 and 2022. The largest increases can be found in Luxembourg with a 64% increase and in Malta with a 63% increase (Fig.2).

Road deaths in the EU27 in 2022 were reduced collectively by 9% compared to 2019. However, considering an average annual decrease of 6.1% is needed to make progress towards the 2030 target, it should have been a 17.2% decrease instead.

**Figure 2. Relative change in road deaths between 2019 and 2022.**

<sup>(1)</sup>National provisional estimates used for 2022, as final figures for 2022 were not available at the time this report went to print. <sup>(2)</sup>UK data for 2022 are the provisional total for Great Britain (1695) combined with the total for Northern Ireland (55) for the calendar year 2022.

<sup>(3)</sup>CARE provisional data. The annual number of deaths in LU and MT are particularly small and, therefore, subject to substantial annual fluctuations. Annual numbers of deaths in CY and EE are relatively small and, therefore, may be subject to relatively strong annual fluctuations.



### 1.3 ONLY ONE EU COUNTRY HALVED THE NUMBER OF DEATHS OVER THE LAST DECADE

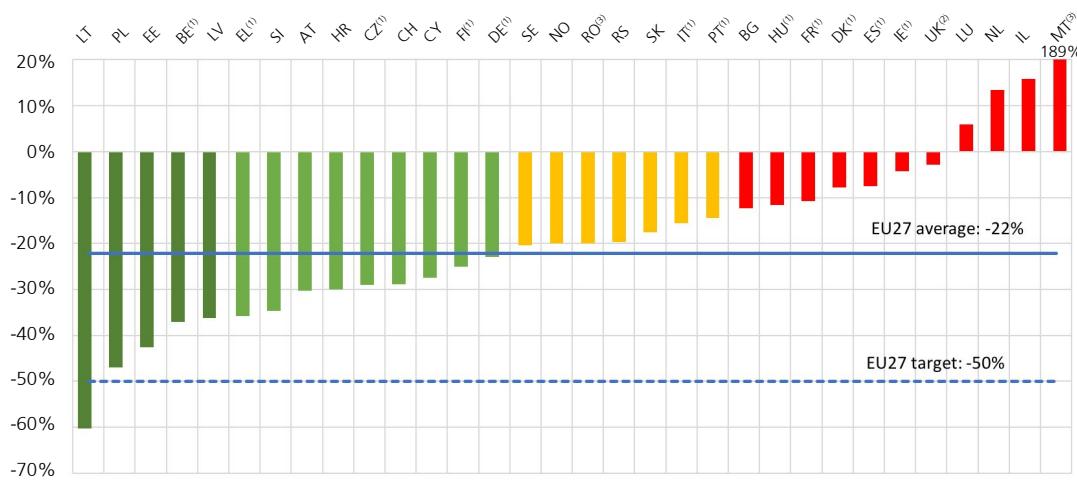
Only one EU Member State reduced road deaths by more than 50% over the last decade – Lithuania with a 60% reduction in road deaths (Fig.3). 13 other PIN countries (PL, EE, BE, LV, EL,

SI, AT, HR, CZ, CH, CY, FI and DE) all achieved a decrease above the EU average of 22%, while other countries progressed to a lesser extent. Four countries saw an increase in road deaths in the last decade, Malta with a 189% increase, Israel with a 16% increase, the Netherlands with a 13% increase and Luxembourg with a 6% increase.

**Figure 3. Relative change in road deaths between 2012 and 2022.**

<sup>(1)</sup>National provisional estimates used for 2022, as final figures for 2022 were not yet available at the time this report went to print. <sup>(2)</sup>UK data for 2022 are the provisional total for Great Britain (1695) combined with the total for Northern Ireland (55) for the calendar year 2022.

<sup>(3)</sup>CARE provisional data. The annual number of deaths in LU and MT are particularly small and, therefore, subject to substantial annual fluctuations. Annual numbers of deaths in CY and EE are relatively small and, therefore, may be subject to relatively strong annual fluctuations.



The 2023 ETSC Road Safety Award was presented to Poland on 20 June 2023. The award recognises Poland's long-term performance in improving road safety. The background to the country's recent progress is detailed in an interview with Mr. Andrzej Adamczyk, Polish Minister of Infrastructure in Part IV.

## 1.4 ROAD DEATHS DECREASED BY 22% BETWEEN 2012 AND 2022, FASTER THAN SERIOUS INJURIES

The EU27 collectively reduced the number of road deaths by 22% over the period 2012-2022 (Fig.4). There were 20,678 deaths on EU roads in 2022. In the last decade there have been 39,554 fewer deaths than there would have been if deaths had continued at the same level as in 2012 (Fig.5).

The overall progress in reducing road deaths on EU roads was good in 2012 and 2013, with an 8% decrease. But the positive start was followed by six years of stagnation with only a 6% reduction over the 2014-2019 period. In 2020 there was an exceptional drop of 17% compared to 2019. However, this result was strongly related to travel restrictions across Europe due to the Covid-19 pandemic. 2021 also saw a consistent drop of 13% with respect to 2019, but the number of road deaths increased by 5% with respect to 2020, influenced by a gradual relaxation of travel restrictions and lockdown requirements across Europe. 2022 saw a decrease of 9% with respect

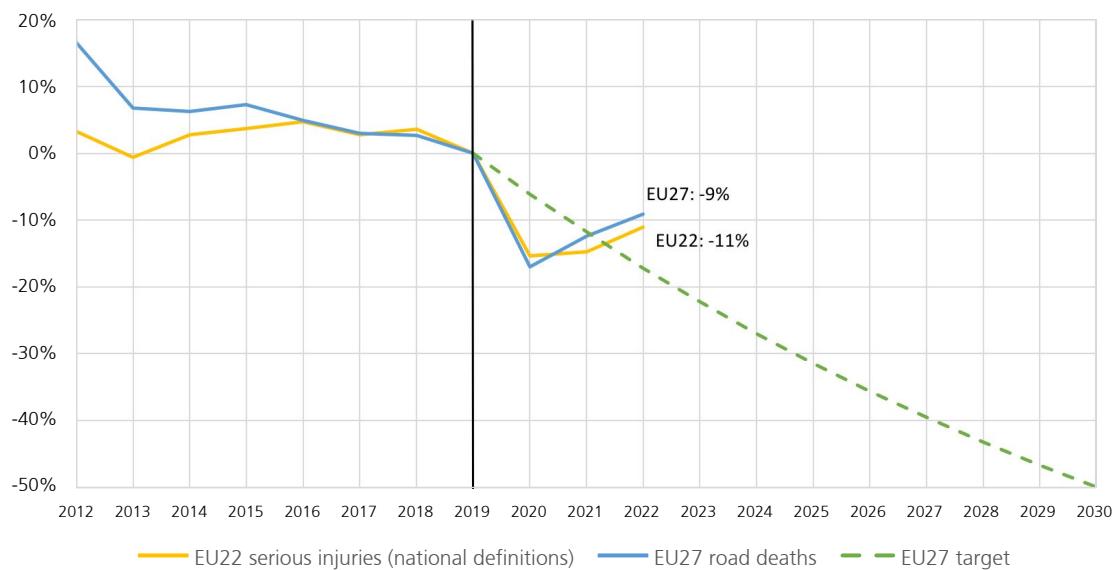
to 2019 – the pre-Covid year - but the number of road deaths increased by 4% with respect to 2021, confirming the increasing road deaths trend after the Covid-19 pandemic.

The progress in reducing serious road traffic injuries over the last decade in the EU22<sup>8</sup> collectively was poor, especially in comparison with the reduction in road deaths. There has been only a 14% reduction over the period 2012-2022 (Fig.4). The number of serious injuries remained almost unchanged until 2019. As with road deaths, there was a substantial drop of 15% in 2020 compared to 2019, most likely due to the various measures imposed during the Covid-19 pandemic. The number of seriously injured remained stable in 2021 with a 1% decrease compared to 2020, yet increased again by 4% in 2022 compared to 2021.

The exceptional 2020 and 2021 results were largely a consequence of Covid-19 lockdowns and associated measures. As we can observe in 2022, there is no guarantee that this progress can be maintained under a return to business-as-usual.

**Figure 4. Change in the number of road deaths in the EU27 since 2012 compared with the EU target for 2030 and change in the number of serious road traffic injuries in the EU22 based on countries' national definitions.**

EU22: EU27 excluding FI, NL and SE due to lack of updated data and LT and IE due to inconsistent trend data. EU27 level of road deaths in 2022 and EU22 level of serious road traffic injuries in 2022 are an ETSC estimate as road deaths and serious injury data for 2022 were not available for some countries at the time this report went to print.



<sup>8</sup>EU22: EU27 excluding FI, NL and SE due to lack of updated data and LT and IE due to inconsistent trend data.

## 1.5 SOME 39,550 LIVES SAVED SINCE 2012 IS OF CONSIDERABLE VALUE

39,553 road deaths have been prevented in the EU over the period 2013-2022 compared with the number that would have been recorded if each Member State had continued to record the same number each year as in 2012. 40,987 more lives could have been saved if the annual reduction of 6.7% needed to reach the EU 50% reduction target in 10 years, had been reached (Fig.5, left column).

Putting monetary value on prevention of loss of human life can be debated on ethical grounds. However, doing so makes it possible to assess objectively the costs and benefits of road safety measures and helps to make the most effective use of generally limited resources.

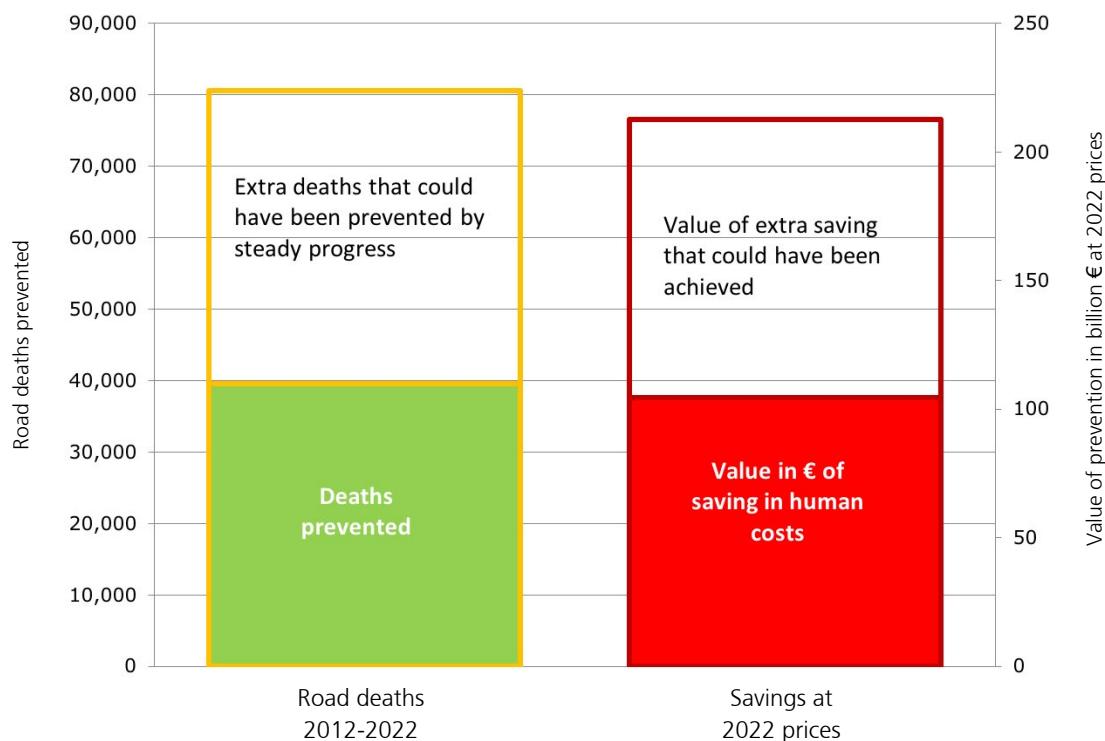
The Value of Preventing one road Fatality (VPF), estimated for 2016 in the EU Handbook on the external costs of transport (2019),<sup>9</sup> has

been updated in this PIN report to take account of changes to the economic situation in the intervening years.<sup>10</sup> As a result, we have taken the monetary value for 2022 of the human losses avoided by preventing one road death to be €2.6 million at market prices in 2022.<sup>11</sup>

The total value of the human losses avoided by reductions in road deaths in the EU27 for 2022 compared to 2012 is estimated at approximately €15 billion,<sup>12</sup> and the value of the reductions in the years 2013-2022 taken together compared with 2012 is about €104 billion (Fig.5, right column).

If the EU had reduced deaths at a constant annual rate of progress of 6.7%, the greater reductions in deaths in the years 2012-2021 would have increased the valuation of the benefit to society by about €108 billion to about €212 billion over those years (Fig.5, right column).

**Figure 5. Reduction in the number of road deaths in EU27 over the period 2012-2022 and valuation at 2022 prices and value, together with the additional savings – both in deaths prevented and costs of this number of deaths – that could have been achieved if the EU had had a steady annual reduction of 6.7%.**



<sup>9</sup> European Commission (2019), Handbook on the external costs of transport, <http://bit.ly/2t4gAr>

<sup>10</sup> Please note that the values used have not been updated in the light of the VALOR study, <https://tinyurl.com/yskp3f5e>

<sup>11</sup> For more information, see ETSC (2020), Updated methodological note to the 14th Road Safety Performance Index (PIN) Report.

<sup>12</sup> i.e. 1,000 million.

## 1.6 NORWAY - THE SAFEST COUNTRY FOR ROAD USERS

In the EU27, the overall level of road mortality was 46 deaths per million inhabitants in 2022 compared to 54 per million in 2012 (Fig.6).

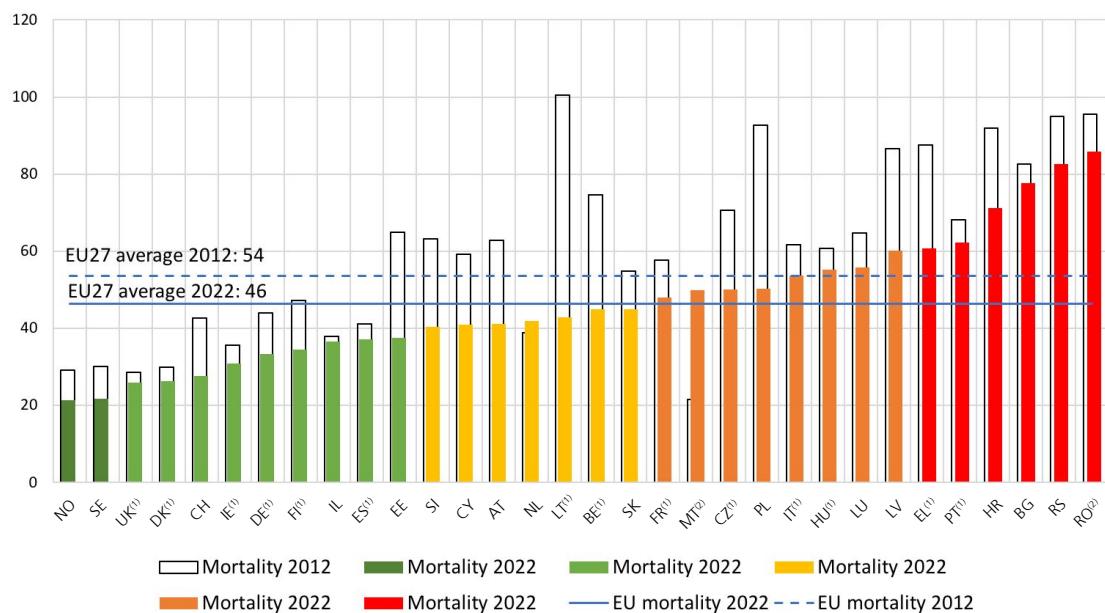
Mortality in the PIN countries differs by a factor of almost four between the groups of countries with the highest and the lowest mortality.

Norway is the leader among the PIN countries with 21 road deaths per million inhabitants in

2022. Sweden follows with 22 deaths per million inhabitants. In the UK, Denmark, Switzerland, Ireland, Germany and Finland, road mortality is below 35 deaths per million. The highest mortality is in Romania and Serbia with 86 and 83 road deaths per million inhabitants respectively. In two countries – Malta and the Netherlands – road mortality is higher in 2022 than in 2012.

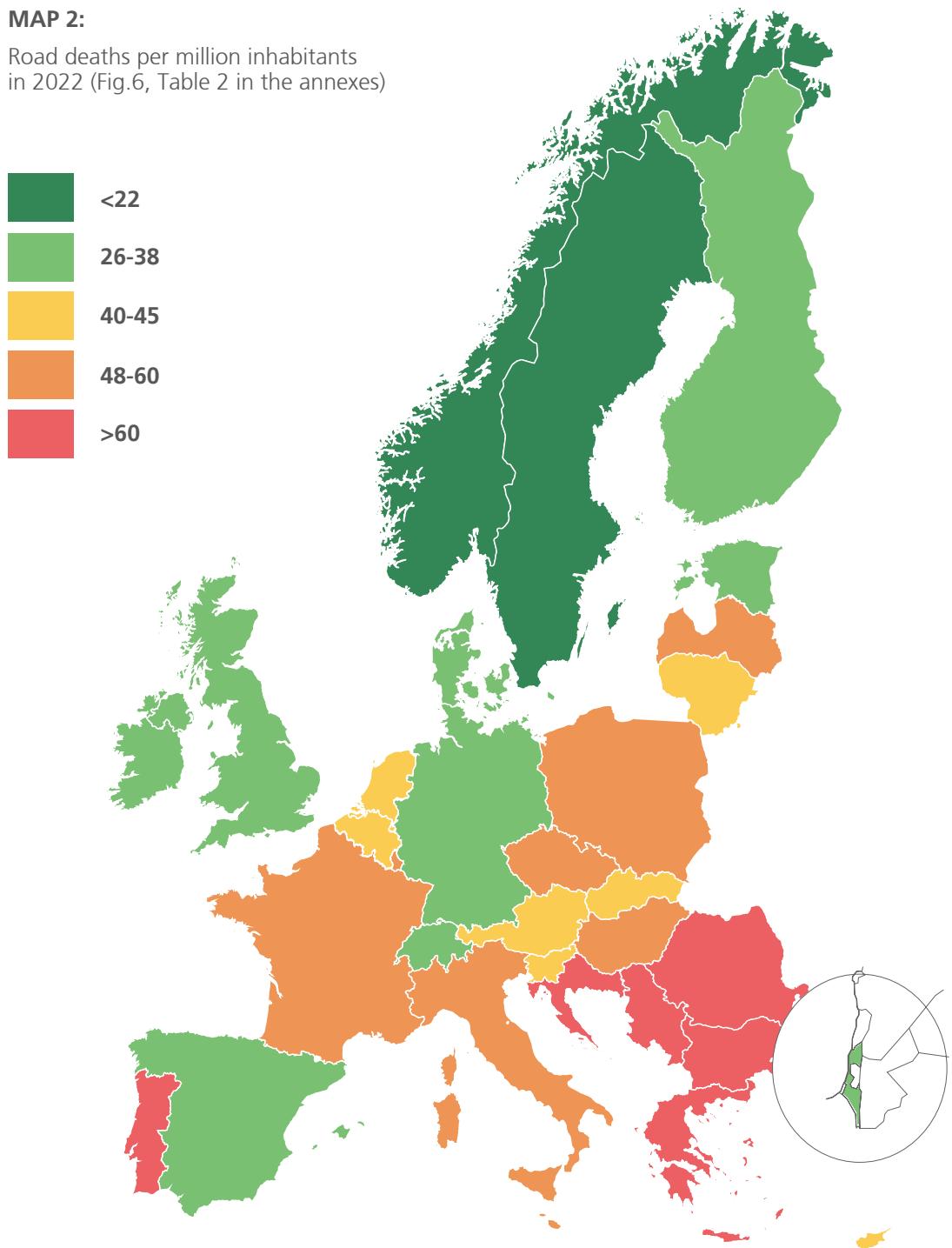
**Figure 6.**  
Mortality (road deaths per million inhabitants) in 2022 (with mortality in 2012 for comparison).

<sup>(1)</sup>National provisional estimates used for 2022, as final figures were not available at the time this report went to print. <sup>(2)</sup>CARE provisional data



**MAP 2:**

Road deaths per million inhabitants  
in 2022 (Fig.6, Table 2 in the annexes)





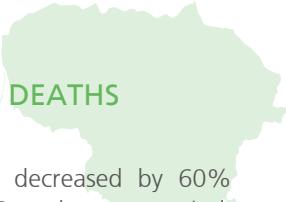
## IRELAND ADDRESSING INCREASES IN ROAD DEATHS

Road deaths in Ireland increased by 15% between 2021 and 2022. Over the decade 2012 to 2022 road deaths were reduced by 4% but this is well below the EU average reduction of 22%. In 2020, the number of serious injuries decreased by 24% compared to the previous year. This was followed by a 19% increase in serious injuries in 2021 compared to 2020.

Realising that road deaths had increased sharply in the first half of 2022 compared to previous years, the Irish government brought forward Action 30 of their Government Road Safety Strategy to review the penalties for serious road traffic offences. In October 2022 it was announced that the fixed charge penalty for a total of 16 high-risk driving offences including speeding, use of a mobile phone while driving, failure to wear a seatbelt or use an appropriate child restraint, and unaccompanied learner driving would double. Some fines relating to offences committed by learner and novice drivers also increased.

In February 2023, the Irish Road Safety Authority (RSA) hosted the first Annual Review meeting (Action 101) of the Government Road Safety Strategy. The purpose of the meeting was to report on progress on strategy implementation, focusing on deaths and serious injuries, across all road users, SPIs (Safety Performance Indicator) and strategy actions to inform road safety activity by all of the strategy stakeholders. Following the Annual Review meeting, seven new priority actions were drafted and approved to reduce road deaths and serious injuries in Ireland in 2023.

In addition, the new Irish Road Traffic and Roads Bill will be enacted in 2023. The bill includes important road safety measures including linking vehicle and driver records held on the National Vehicle and Driver File to assist the police in road traffic enforcement activities, new regulations on e-scooter use on public roads and allowing variable speed limits on sections of the M50 motorway.



## LITHUANIA REDUCTION IN ROAD DEATHS CONTINUES

Road deaths in Lithuania decreased by 60% between 2012 and 2022. Over the same period, the country also more than halved road mortality, from 100 road deaths per million population in 2012 to 42 in 2022, which is below the EU average of 46. In the years to 2020, Lithuania implemented more than 1000 road safety improvements per year including: reconstructing unsafe pedestrian crossings; installing new roundabouts; upgrading dangerous junctions; building infrastructure for vulnerable road users; improving lighting and building traffic islands, traffic calming and speed bumps. In addition, to tackle drink-driving, an alcohol interlock programme was set up in 2019. To tackle speeding, the number of speed cameras was also increased significantly (from 71 section control cameras in 2020 to 189 in 2022).



## SWITZERLAND INCREASE IN CAR OCCUPANT AND E-BIKE ROAD DEATHS IN 2022

Road deaths in Switzerland increased by 21% between 2021 and 2022 although over the decade they have reduced by 29%.

The exact causes of the increase between 2021 and 2022 are not yet known and are being investigated. Analysis of the data available does show that road deaths among car occupants rose by more than 30% (from 65 to 87) between 2021 and 2022 and, while bicycle road deaths declined over the same period, there was an increase in the number of people killed on an electric bike (17 deaths in 2021 to 23 deaths in 2022).

Road deaths among motorcyclists and pedestrians remained stable. Three people died on an e-scooter in 2022, compared to zero e-scooter deaths in 2021.

## NETHERLANDS

### INCREASE IN CYCLIST DEATHS IN THE NETHERLANDS, IN PARTICULAR AMONG THOSE AGED 75 AND ABOVE

Road deaths in the Netherlands increased by 11% since 2019, and by 13% since 2002. Nearly 40% of all road deaths in the Netherlands in 2022 were cyclists. Cyclist deaths in the Netherlands increased by 40% between 2021 and 2022. Further analysis of this road user group shows that there has been a significant increase in the number of older (over 75) cyclists killed. 150 cyclists over the age of 75 were killed in the Netherlands in 2022, compared to 94 the year before, an increase of 59%.

## SPAIN

### STRATEGY ON ROAD SAFETY 2030

In 2022, Spain presented its Strategy on Road Safety 2030, which includes a 50% reduction target for road deaths and serious injuries by 2030, in line with EU and UN targets. The strategy is designed to provide a national reference framework for all parties involved in road safety policies in Spain by the year 2030 but, at the same time, to continue the efforts and the achievements made in the previous Strategy on Road Safety 2011-2020.

62 lines of action grouped into nine main strategic areas have been defined: trained and capable persons; zero tolerance of risky behaviour; safe cities; safe roads; safe and connected vehicles; effective and equitable responses to crashes; data and knowledge for risk-based management; safe administrations, companies and organisations and integrated policies and international cooperation.

## BELGIUM

### INCREASE IN THE NUMBER OF VULNERABLE ROAD USER DEATHS

According to police records, 521 people died on Belgian roads in 2022. A third of all road deaths were vulnerable road users. An initial assessment of the 2022 data showed that almost half of all the cyclists killed were over the age of 65 and almost 40% were riding an electric bike at the time of the collision.<sup>13</sup>

## FINLAND

### RECENT TREND OF INCREASING NUMBERS SEEMS TO BE COMING TO AN END

The more recent trend of increasing numbers of road deaths in Finland seems to be coming to an end. Road deaths for 2022 are still provisional, but it is hoped that the final figures will also show that the number of road deaths in 2022 was below 200. When comparing Finland's road deaths internationally, it is important to remember that suicides are included in Finland's statistics which is not the case elsewhere.

Finland's road deaths did not follow the general trend during Covid-19 times, instead remaining relatively stable in 2020 and 2021, while in many countries they dropped significantly. Could Finland be seeing a Covid-19 reduction now, two to three years late?

In 2022, road deaths for some road user groups - moped, van, truck and combined class 'other vehicles' – were suddenly very low. But car occupants remain the largest road user group represented in road death statistics. While some improvements among working age (25-64yrs) car occupants have been seen, young car occupants remain overrepresented.

The following elements are considered as potentially having influenced the road safety situation in Finland in 2022:

- continuously increasing the number of kilometres of road with a 30 km/h speed limit
- changes in working and leisure time habits and travelling during and after the Covid-19 pandemic
- high fuel prices may have led to less driving among some age groups
- Finland's car fleet is still quite old and older cars without modern assistance technologies are overrepresented in serious collisions.
- It is possible that a higher proportion of working age drivers drive more modern cars and that may have influenced road death statistics for that age group.

<sup>13</sup> Those numbers are all based on police records and do not have the same level of accuracy as official numbers due to methodological differences (official numbers for 2022 were not available yet when this section was written).

## 1.7 ROAD DEATHS PER VEHICLE-DISTANCE TRAVELED

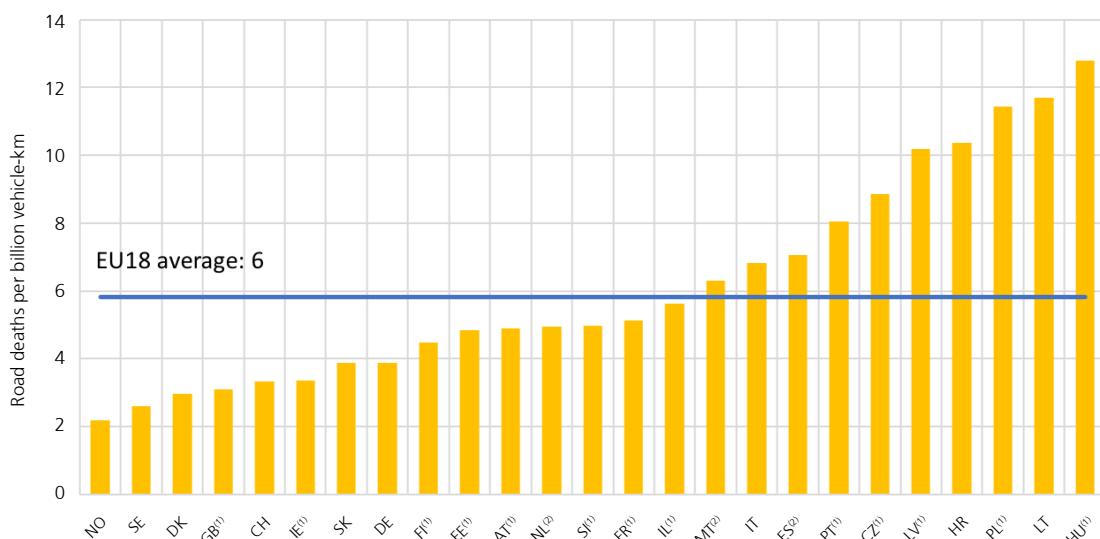
Figure 7 shows road deaths per billion motor vehicle-km travelled for the 25 PIN countries where up-to-date data are available. This indicator complements the well-established indicator of road mortality (Fig.6).

Measured in this way, Norway, Sweden, Denmark, Great Britain, Switzerland and Ireland have the lowest road risk among the countries collecting up-to-date countrywide data. The

road risk in the PIN countries differs by a factor of almost five between the groups of countries with the highest and the lowest number of road deaths per vehicle-distance travelled.

Differences between the relative positions of countries in Fig.6 and Fig.7 can arise from differences in aspects such as the levels of motorcycling, cycling or walking, the traffic volume, the proportions of traffic on motorways and rural roads, different methods for estimating the distance travelled or other factors.

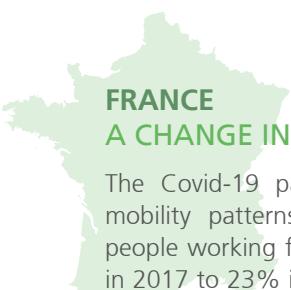
**Figure 7. Road deaths per billion vehicle-km 2020-2022 average.**  
Average for the latest three years for which both the road deaths and the estimated data on distance travelled are available.  
<sup>(1)</sup>2019-2021, <sup>(2)</sup>2019-2020. EU18 average:  
 EU27 excluding BE, BG, CY, ES, EL, LU, MT, NL and RO due to lack of data on vehicle distance travelled. Note: single cyclist deaths are included in the road death data used in this figure.



### 1.7.1 Mobility patterns during and after the Covid-19 pandemic

In 2020, with the Covid-19 pandemic and the related restrictive measures, mobility drastically decreased in Europe. Two years since the beginning of the pandemic, mobility levels were almost back to pre-pandemic levels. However, the Covid-19 pandemic has affected the way

people commute and the reaction varies among European countries. A common trend is a decrease in the use of public transport in favour of cars or working from home. Some studies have been done to understand how mobility has changed and what can be done to promote sustainable mobility.



## FRANCE A CHANGE IN MOBILITY PATTERNS

The Covid-19 pandemic led to a change in mobility patterns in France. The number of people working from home increased from 3% in 2017 to 23% in 2022. A study carried out by the Centre for Studies and Expertise on Risks, the Environment, Mobility and Urban Planning (CEREMA) shows that a small share of people working from home 1 to 3 days per week are less mobile on those days but all in all people allowed to work from home tend to be more mobile during weekends than the rest of the population. However, 36% of people working from home in cities have a public transport subscription, twice as many as people working from the office. This proportion decreases to 17% in less populated areas. 25% of people who had a public transport subscription in 2020 cancelled it. Cars represent the main transport mode, representing between 72% and 79% of trips, as opposed to 14% for pedestrians.<sup>14</sup>



## ITALY DECREASE IN SUSTAINABLE MOBILITY

Mobility levels are almost back to pre-pandemic levels in Italy, especially on roads outside urban areas. However, although commuting for work and study is back to pre-pandemic levels, leisure mobility decreased by 7 percentage points, while travel for family reasons increased by 6 percentage points with respect to pre-pandemic levels. In Italy, urban mobility represents 70% of all mobility (number of trips) in the country. The most common mode of transport is the car, representing 65% of all trips (1.5% more than in 2019). The use of the car has increased mainly in the south of the country, in small cities and in suburban areas. At the same time, walking decreased by 1.8 percentage points with respect to 2019 possibly due to a lack of policies to promote it. Public transport use also decreased and now represents only 7.6% of trips (it was 10.8% in 2019). Walking, cycling and public transport use represents only 31.4% of all mobility, although cycling increased (3.3% in 2019 as opposed to 4.7% in 2022).<sup>15</sup>



## PORTUGAL CHANGE IN MOBILITY PATTERNS

A study on bike sharing in Lisbon shows how different users reacted to the Covid-19 pandemic. The study revealed that 35% of users stopped using the public bicycle hire scheme, while 30% increased their use. Among those who stopped using the service, the main reason for doing so was because they were no longer commuting. On the other hand, those people who did start to use it, did it mainly because it was considered a safer transport mode since there was a very low risk of infection. In addition, the installation of pop-up cycle lanes enlarged the available cycling network. The study also shows that there has been a significant decrease in the modal share of public transport (from 36% to 22%), but there has been an increase in bike sharing and walking (from 22% to 27% and from 20% to 23% respectively). The car modal share has also increased from 11% to 15%. Among commuters who used to use the bike sharing service, their overall car use increased from 13% to 57%. The share of people who consider public transport safe or very safe from the point of view of infection risk decreased from 74% to 16%.<sup>16</sup>



## SWITZERLAND DECREASE IN THE USE OF PUBLIC TRANSPORT

In the first months of 2021, the use of public transport decreased by 52% compared to the previous year in Switzerland. During the same period, the use of cars and motorcycles decreased by only 27%. There has been no change for walking and cycling. Leisure was the main reason for travelling. Non-sporting outdoor activities – which mainly include walks – have become more important during the pandemic. The distances completed in this context increased by 50% with respect to previous year.<sup>17</sup>

A study conducted in 2021 showed that car distance travelled at the end of May 2021 was almost back to pre-pandemic levels but public transport was at around 40% of pre-pandemic levels.<sup>18</sup>

<sup>14</sup> CEREMA (2022), BaroMob, Barometer mobility post Covid (in French), <https://bit.ly/3Bb6Z14>

<sup>15</sup> ISFORT (2022), report on Italian mobility (in Italian), <https://bit.ly/41iSgfa>

<sup>16</sup> Teixeira J.F., Silva C., Moura e Sá F. (2022), The role of bike sharing during the coronavirus pandemic: An analysis of the mobility patterns and perceptions of Lisbon's GIRA users, <https://doi.org/10.1016/j.tra.2022.03.018>

<sup>17</sup> BFS (2021), The impact of COVID-19 on mobility: people's use of transport one year after the start of the pandemic, <https://bit.ly/3VPGHea>

<sup>18</sup> Hintermann, B. et al. (2023). The impact of COVID-19 on mobility choices in Switzerland, Transportation Research Part A: Policy and Practice, Volume 169, The impact of COVID-19 on mobility choices in Switzerland ([sciedirectassets.com](https://sciedirectassets.com))



## GERMANY A SHIFT TO INDIVIDUAL MODES

A study conducted in Germany in 2021 aiming to analyse the effect of the Covid-19 pandemic shows considerable changes in travel patterns due to the particularly restricted period of lockdown. Travel mode preferences and the use of various modes of transport changed in favour of individual modes, in particular cars. Furthermore, not only the usage patterns, but also attitudes toward the various modes of transport changed. During the Covid-19 pandemic, people felt more comfortable using a car than any other mode of transport. About 20% of respondents reported feeling more protected against the virus being in a car compared to only 2% who stated the same for using public transport.<sup>19</sup>

## RECOMMENDATIONS TO NATIONAL GOVERNMENTS

- Adopt and implement the Safe System approach to road safety by addressing all elements of the road transport system in an integrated way and adopting shared overall responsibility and accountability between system designers and road users.<sup>20</sup>
- For countries who have not yet done so, adopt Road Safety Plans, including national targets for reducing serious injuries (based on the MAIS3+ standard) alongside a reduction of road deaths and quantitative sub-targets based on performance indicators.
- Seek to accelerate progress by all available means, including applying proven traffic law enforcement strategies according to the EC Recommendation on Enforcement.<sup>21</sup>
- Provide sufficient government funds to allow the target-oriented setting of measures and set up financing and incentive models for the regional and local levels.
- Use the evidence gathered to devise and update relevant policies. Make the choice of measures based on sound evaluation studies and – where applicable – cost effectiveness considerations, including serious injuries, in the impact assessment of countermeasures.
- Conduct a thorough qualitative assessment of current road safety strategies to evaluate the levels of implementation and effectiveness of the foreseen road safety measures in reaching road safety targets.

## RECOMMENDATIONS TO THE EUROPEAN COMMISSION

- Create a new agency to support safe, smart and sustainable road transport operations.<sup>22</sup>
- Within the context of the EU Road Safety Policy Framework 2021-2030:<sup>23</sup>
- Redouble road safety action in light of the mid-term review of the framework expected in 2025.

<sup>19</sup> Kolarova, V., Eisenmann, C., Nobis, C. et al. (2021), Analysing the impact of the COVID-19 outbreak on everyday travel behaviour in Germany and potential implications for future travel patterns, <https://bit.ly/42lmdq1>

<sup>20</sup> OECD-ITF (2016), Zero Road Death and Serious Injuries, Leading a Paradigm Shift to a Safe System approach, <https://bit.ly/42ugtzQ>

<sup>21</sup> EC Recommendation on Enforcement in the Field of Road Safety 2004/345, <https://bit.ly/39aWdh3>

<sup>22</sup> ETSC (2018) Briefing: 5th EU Road Safety Action Programme 2020-2030, <https://bit.ly/2LuTDBW>

<sup>23</sup> ETSC (2019), Briefing: EU Strategic Action Plan on Road Safety, <https://bit.ly/3iiD3YR>

## PART II

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# SERIOUS INJURIES: LITTLE PROGRESS SINCE 2012



## MAIS3+ DEFINITION

The Abbreviated Injury Scale (AIS) is a globally accepted trauma classification of injuries, which ranges from 1 (minor injuries) to 6 (non-treatable injuries) and is used by medical professionals to describe the severity of injury for each of the nine regions of the body (Head, Face, Neck, Thorax, Abdomen, Spine, Upper Extremity, Lower Extremity, External and other). As one person can have more than one injury, the Maximum Abbreviated Injury Score (MAIS) is the maximum AIS of all injury diagnoses for a person.

The High Level Group on Road Safety representing all EU Member States identified three main ways Member States can choose to collect data in accordance with the MAIS3+ definition:

1. continue to use police data but apply a correction coefficient based on samples;
2. report the number of injured based on data from hospitals;
3. create a link between police and hospital data.

All methods used for estimating the number of serious traffic injuries (MAIS3+) are in one way or another based on hospital records. Even when applying correction to police data, it is necessary to have samples of hospital data to derive the correction factors.<sup>24</sup> These correction factors are likely to be different depending on the travel mode, age group and country.

ETSC recommends the third option but, as matching police and hospital data is not straightforward, Member States that have not yet started this process should make use of option 2 or, if that is not possible nationwide, option 1. Within the framework of the SafetyCube project financed by the European Commission, a study was published on serious road traffic injury data reporting practices. It provides guidelines and recommendations for each of the three main ways to estimate the number of serious road traffic injuries in order to assist Member States in MAIS3+ data collection.<sup>25</sup>

<sup>24</sup> SafetyCube (2016), Practical guidelines for the registration and monitoring of serious traffic injuries, Deliverable 7.1, <https://goo.gl/hWPCG>

<sup>25</sup> Ibid

## 2.1 THE FIRST EU TARGET TO HALVE SERIOUS INJURIES BETWEEN 2020 AND 2030

In 2018, the European Commission announced the first target for reducing serious road traffic injuries by 50% between 2020 and 2030. The announcement followed the adoption of the Valletta Declaration on road safety in 2017 by EU transport ministers which had called for such a target.

In 2020, the European Commission updated the estimated number of serious road traffic injuries. According to this estimate, 110,000 people were seriously injured on EU27 roads in 2019 based on the common EU definition of what constitutes a serious road injury – an in-patient with an injury level of MAIS3 or more (see box).<sup>26</sup>

## 2.2 MOST COUNTRIES REDUCED THE NUMBER OF SERIOUSLY INJURED SINCE 2012

In addition to MAIS3+ data, Member States should also continue collecting data based on their previous national definitions. This will enable monitoring of progress in the same way at least until these rates of progress can be compared with those under the new definition.

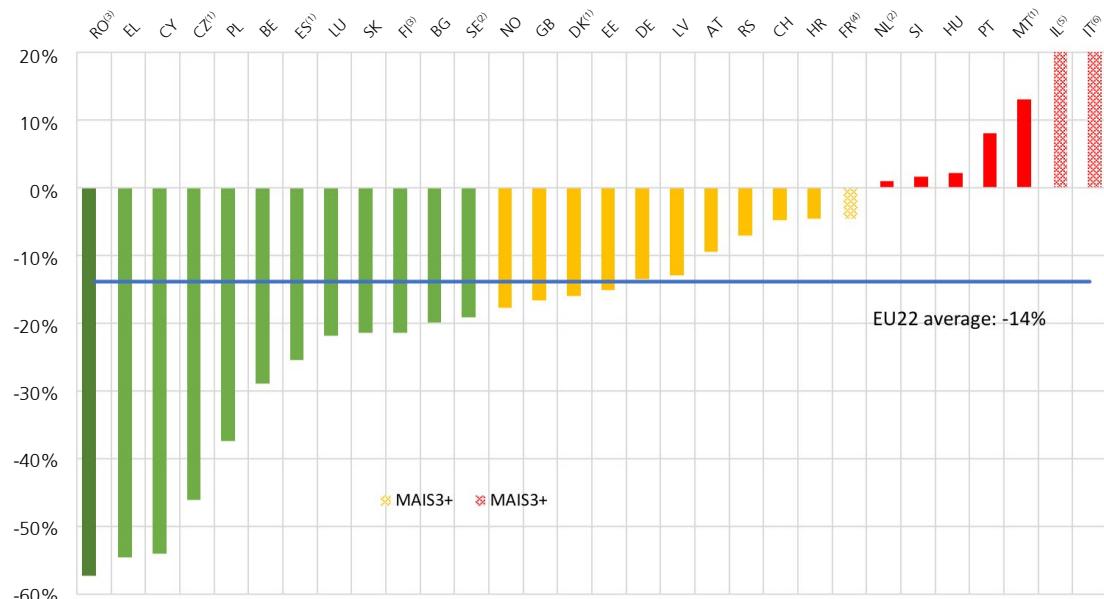
Figure 8 shows the relative change in the number of serious injuries over the period 2012-2022 using current national definitions of a serious injury.

The number of people recorded as seriously injured, based on national definitions, decreased in 23 of 30 PIN countries that collect data. In the EU22 collectively, serious road traffic injuries dropped by 14% over the period 2012-2022 (Fig.8). Numbers of serious road traffic injuries in the EU as a whole stagnated during most of the decade, and then suddenly dropped in 2020 during the Covid-19 lockdowns. The number of recorded serious injuries went down by 57% in Romania for the period 2012-2021, by 54% in Greece and Cyprus for the period 2012-2022 and 46% in Czechia for the period 2012-2021. The number of recorded serious injuries increased by 22% in Italy for the period 2012-2021, 21% in Israel for the period 2013-2022 and 13% in Malta for the period 2012-2021. The increase in Italy could also be the effect of the improved quality of hospital data mainly in identifying people injured in a road collision.

<sup>26</sup> European Commission (2020), Road Safety: Europe's roads are getting safer but progress remains too slow, <https://bit.ly/37GXvv6>

**Figure 8. Relative change in recorded seriously injured (national definitions) over the period between 2012 and 2022 for countries where data are available.**

The years covered vary:  
<sup>(1)</sup>2012-2021, <sup>(2)</sup>2012-2020, <sup>(3)</sup>2014-2020,  
<sup>(4)</sup>MAIS3+, <sup>(5)</sup>2013-2022,  
MAIS3+, <sup>(6)</sup>2012-2021,  
MAIS3+. EU22: EU27 excluding LT and IE due to inconsistent trend data and FI, NL and SE due to lack of updated data. PIN countries using a definition of seriously injured similar to having injuries requiring at least one night in a hospital as an in-patient: BE, CY, DE, EE, ES, FR, EL, IE, LV, LU, PT, UK, CH, IL.



## INDICATOR FIG. 8, 9 AND 10

It is not possible to compare the number of seriously injured between EU Member States because of the different national definitions of serious injury, together with differing levels of underreporting. It is also too early to use data based on MAIS 3+ for comparing countries over time. The comparison therefore takes as a starting point the changes in the numbers of seriously injured (based on each national definition) since 2012 (Fig.8). The changes in these numbers since 2012 are compared to the corresponding changes in the numbers of deaths since 2012 (Fig.10). Fig.9 shows the number of seriously injured road users based on national and MAIS3+ definitions per one road death recorded by the police in PIN countries where data are available.

The numbers of seriously injured were supplied by the PIN panellist in each country. The full dataset, together with the national definitions, are available in the annexes. All PIN countries collect data on "serious" injuries. The numbers of people seriously injured based on the national definition in 2022 are provisional in Belgium, Germany, Spain, Greece, Hungary.

Fourteen countries (BE, CY, DE, EE, ES, FR, EL, IE, LV, LU, PT, UK, CH, IL) use similar definitions of severe 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 categorisation as "serious" is often made 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 disablement with severe damage to the brain or other vital parts of the body to injuries whose treatment takes only a few days and have no longer-term consequences.

## 2.3 LARGE DIFFERENCES IN THE NUMBERS OF PEOPLE RECORDED AS INJURED DUE TO VARYING DATA COLLECTION METHODS AND REPORTING LEVELS

The exact number of people seriously injured in road collisions is not yet known in all EU countries.

Sample studies have shown that the actual number based on the national serious injury definition is often considerably higher than the number officially recorded by the police. In general, the lower the injury severity, the higher the underreporting in collision statistics collected by the police tends to be. The level of underreporting tends also to be higher for pedestrians, cyclists and motorcyclists than for vehicle occupants. This is especially the case when no motor vehicle is involved in a collision.

However, serious injury numbers based on the MAIS3+ definition tend to be smaller than those registered by the police as illustrated by data from countries where two data sets, MAIS3+ and police data, are collected (Fig.9). Therefore, serious injury numbers depend on definitions, data collection methodologies and data quality.

Figure 9 shows the number of seriously injured road users based on national and MAIS3+ definitions compared to the number of road deaths recorded by the police in PIN countries where data are available. Data based on national definitions are collected by the police while MAIS3+ data in one way or another are collected based on hospital records (see box MAIS3+ definition).

The reporting level of serious injuries recorded by the police based on national definitions varies greatly among countries. This can be related to differences in legislation, insurance policy, police resources and the quality of data collection and processing. In some countries, reporting is better because the police have to attend all collisions with personal injury (e.g. Germany) or because insurance compensation can only be claimed if there is a report by the police.

In the SafetyNet report “Estimating the real number of road accident casualties”, conversion

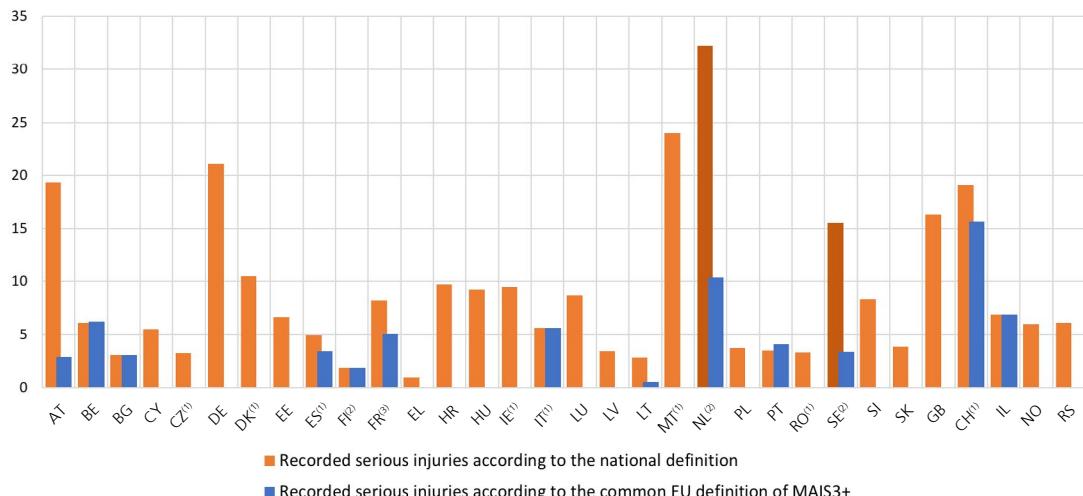
factors for underreporting in police records were estimated for eight EU countries.<sup>27</sup> It was originally envisaged that the conversion factors would be generalised to other EU countries to allow for European comparison. The authors came to the conclusion, however, that conversion factors differed too widely among countries and that comparable studies should be conducted in as many countries as possible.

When looking at recorded serious injuries based on national definitions, fewer than one serious injury is registered for every recorded road death in Greece, the ratio is around 32 in the Netherlands, 24 in Malta, 21 in Germany and 19 in Switzerland (Fig.9). The differences in seriously injured per death do not mean that fewer people are injured for every road death in Greece than in the Netherlands, Malta, Germany or Switzerland but rather that seriously injured survivors are better reported by the police in the latter countries. Disparities may also stem from differences in travel behaviour: the ratio of injured per death strongly depends on the travel mode. Thus, neither serious injury numbers, nor ratios between killed and injured, are comparable between countries.

There are around 16 seriously injured people based on the MAIS3+ definition for each road death in Switzerland, ten in the Netherlands, and seven in Israel. There are two seriously injured people based on the MAIS 3+ definition for each road death in Finland and one in Lithuania (Fig.9, blue bars). As for serious injuries based on police records, the differences in serious injuries based on MAIS3+ per death do not necessarily mean that fewer people are injured for every road death in Lithuania or Finland. These countries, as well as other countries, are in the process of improving the quality of the MAIS3+ data. The challenge is to capture all serious injuries that occur in traffic collisions, because hospitals record injuries from all causes and in some cases apply a different code (using the International Classification of Diseases – ICD). Also, differences may arise due to differences in travel mode use: use of bicycles or powered two wheelers leads to a much higher ratio between MAIS3+ and deaths than pedestrians or car occupants.

<sup>27</sup> Broughton et al. (2008), Estimating the real number of road accident casualties, Final deliverable D.1.15, SafetyNet, <https://bit.ly/3txp0Dz>. Participating countries: Austria, Czechia, France, Greece, Hungary, the Netherlands, Spain and the UK.

**Figure 9.**  
 Number of seriously injured recorded in national statistics per one road death per country in the last three years ranked alphabetically. Numbers between countries are not comparable. 2019-2021 average or the latest three years available. <sup>(1)</sup>2019-2021, <sup>(2)</sup>2018-2020, <sup>(3)</sup>2015-2017. SE (dark brown bar) - hospital data. NL (dark brown bar) - MAIS2+, hospital data.



## 2.4 ANNUAL REDUCTION IN SERIOUS INJURIES STILL BEHIND ROAD DEATH REDUCTION

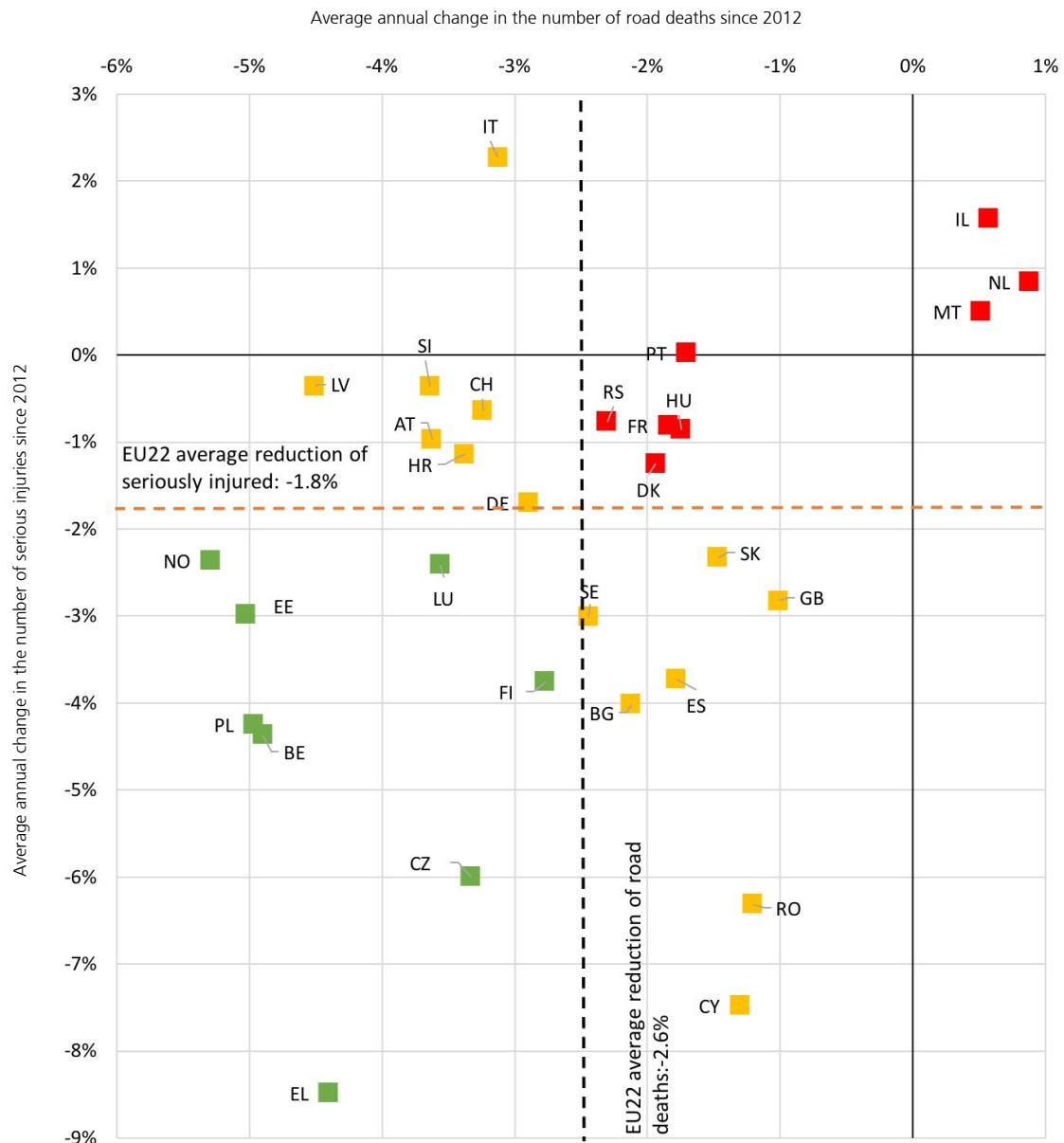
Figure 10 gives an overview of national progress in reducing the numbers of road deaths and serious injuries (based on each national definition) over the last ten years. The figure aims to indicate to what extent the two have moved at a similar pace. The average annual change<sup>28</sup> in road deaths is plotted on the horizontal axis, and the average annual change in serious injuries on the vertical axis, while the EU averages of -2.6% and -1.8% respectively are shown by vertical and horizontal dotted lines. Green

markers are used for countries that performed better than the EU average in both death and serious injury reduction, red markers for those below the EU averages in both death and serious injury reduction and amber markers for all others – better than the average in deaths but not in serious injury or vice-versa.

Greece, Czechia, Belgium, Poland, Luxembourg, Finland, Estonia and Norway have performed better than the EU average in reducing both serious injuries and road deaths since 2012. The annual reduction rates of serious injuries are also related to reporting rates.

<sup>28</sup> The average annual decrease is based on the entire time series of all the nine annual numbers of road deaths between 2012 and 2022, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: <https://bit.ly/2LVVUtY>

**Figure 10**  
**Estimated average annual change in the number of seriously injured according to the national definition over the period 2012-2022 for countries where data are available, plotted against the estimated average annual change in road deaths over the same period.**  
The years covered vary: 2012-2021: CZ, DK, ES, IT, MT, RO, 2014-2020: FI, 2012-2020: NL, SE 2013-2022; IL, MAIS3+: IT, IL, EU22: EU27 excluding LT, and IE due to inconsistent trend data and FI, NL and SE due to lack of updated data for serious injuries.



## **RECOMMENDATIONS TO NATIONAL GOVERNMENTS**

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- Set national reduction targets for serious injuries based on MAIS3+ alongside the reduction of deaths in upcoming road safety strategies.
- Collect serious injury data according to the MAIS3+ definition and continue collecting data based on national definitions.
- Include effects on the numbers of serious injuries in the impact assessment of road safety measures.
- Streamline the emergency response chain and increase the quality of trauma management in order to mitigate collision consequences more effectively.

## **RECOMMENDATIONS TO EU INSTITUTIONS**

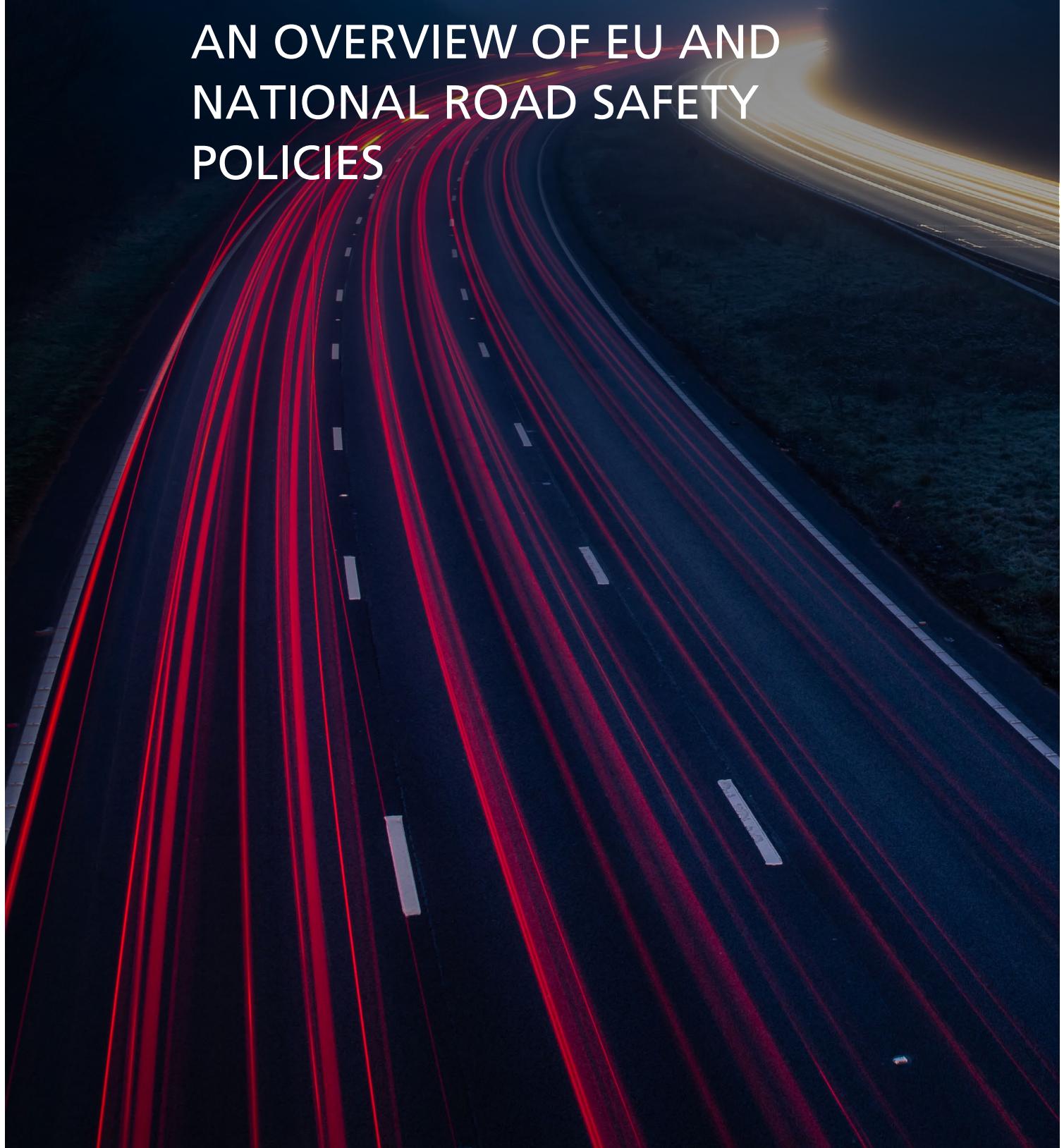
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- Adopt a new joint-EU strategy to tackle serious injuries involving all directorates general in particular the DG for health.
- Adopt a new EU health strategy including road traffic injury prevention measures.
- Prioritise short-term measures that can be implemented with existing knowledge, e.g. measures to improve speed limit compliance will reduce injury severity and have an immediate effect.
- Support Member States with an exchange of best practices in MAIS3+ recording procedures and in the training of data-handling professionals.
- Continue to review the procedures used by Member States to estimate the number of people seriously injured with a view to achieving comparability even though a variety of methods will be used in practice to implement the common definition.
- Include the number of seriously injured in the impact assessment of countermeasures.
- Treat road injuries and deaths as a public health problem as well as a mobility issue.

## PART III

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# AN OVERVIEW OF EU AND NATIONAL ROAD SAFETY POLICIES



### 3.1 CURRENT EU ROAD SAFETY POLICY DEVELOPMENTS

The EU Strategic Action Plan for Road Safety<sup>29</sup> set a new target to halve road deaths by 2030 compared to 2020 levels, as well as, for the first time, a target to halve the number of seriously injured over the same period. The EU Road Safety Policy Framework 2021-2030<sup>30</sup>, introduced eight Key Performance Indicators to measure the overall safety performance of EU Member States and measures on how to reach the strategy's targets.

#### 3.1.1 New legislative proposals

On 1 March, 2023, the European Commission published proposals for three pieces of road safety legislation: the revision of the EU driving licence directive, the revision of the cross-border enforcement (CBE) directive and a proposal for a new EU directive on driving disqualifications.<sup>31</sup> These proposals were severely delayed and it is hoped agreement can still be made before the end of the current political mandate (2019-2024) to ensure the lifesaving potential is maximised within the EU Road Safety Policy Framework 2021-2030 timeframe. It should be noted, that not all elements of the proposed package will improve road safety.

#### PROPOSAL FOR A REVISION OF THE DRIVING LICENCE DIRECTIVE

The EC proposal on the revision of the driving licence directive is the first revision since 2008 and the changes it proposes aim to update the rules governing driver licensing across the EU.

Some of the new proposals made by the European Commission include:

##### Young and novice drivers:

- Novice drivers of all vehicle categories to be subject to a zero-tolerance alcohol limit for a minimum of two years after passing their test and Member States are also encouraged to restrict other high-risk activities during this period such as driving with other young people or at night.
- Introduction of the principle of accompanied driving, when young people take their driving

test and commence accompanied driving of cars and lorries from the age of 17, to gain driving experience, but are not authorised to drive alone before 18 years of age. That having been said, the option to lower the minimum age to drive a car at 17 without accompanied driving remains in the Directive and in countries where the minimum age for driving a car is already 17 years, drivers will be able to drive alone as of 17 within their Member State, and as of 18 years across the EU.

- Updating the driver test and knowledge to include the use of advanced driving assistance systems and automation features as well as raising awareness about how to share roads with vulnerable road users.

##### Medical fitness for Group 1 drivers (car and motorcycle):

- Candidates must carry out a self-assessment of their physical and mental fitness to drive and declare if they have one (or more) of a list of medical conditions. The current Directive does not mandate any medical checks for car drivers, except an eye sight test.
- Member States shall reduce periods of administrative validity to five years or less for drivers having reached 70 and apply an increased frequency of medical checks or other specific measures including refresher courses.
- The minimum standards for medical fitness to drive relating to alcohol dependency are updated to allow continued driving if 'appropriate restrictions are applied through the use of technologies enabling to offset the dependency (for example, through the mandatory use of an alcohol interlock)'.
- Beyond the legislative proposal, medical screening processes across the EU will be better aligned through a new online training programme for general practitioners and a platform for exchanging best practices on medical assessments. This is still to be developed.

<sup>29</sup> <https://bit.ly/2xHGu5w>

<sup>30</sup> <https://bit.ly/3MvAzF0>

<sup>31</sup> European Commission (2023), European Commission proposes updated requirements for driving licences and better cross-border enforcement of road traffic rules, <https://bit.ly/3O83rV8>

## Other proposals

- Licences granted for category B<sup>32</sup> shall be valid to drive alternatively fuelled vehicles up to 4.25 tonnes, thus exceeding the weight limit of 3.5 tonnes.
- Staging<sup>33</sup> and equivalence between licence categories - proposal to delete staging for certain categories of licence, establishing the right to drive vehicles in category D1E<sup>34</sup> for holders of licences of category D1<sup>35</sup> and C1E<sup>36</sup> or D1 and CE<sup>37</sup>. EC proposal suggest that a driving licence for category C1E or CE would be valid for D1E vehicles (if age requirements are met).
- Proposal to allow Member States to authorise the driving on their territory of the following categories of vehicles: vehicles of Category B<sup>38</sup> with a maximum authorised mass of 2,500kg and a maximum speed physically limited to 45 km/h by drivers below 21 years old holding a driving licence granted for category B1<sup>39</sup>, which can be issued from 16 years of age.

Some of the new proposals made by the European Commission include:

- extending the scope of the directive beyond the current eight most important road safety-related traffic offences to include seven new offences including: dangerous overtaking, dangerous parking, crossing one or more solid white lines, wrong-way driving, not respecting the rules on the creation and use of emergency corridors, use of an overloaded vehicle;
- improving the use of mutual assistance tools for the follow-up procedure;
- identification of the need for financial support for cross-border co-operation on enforcement of road safety-related offences and the exchange of best practices for this purpose;
- new reporting requirements;
- aiming to further improve communication with citizens on the road traffic rules through the 'CBE Portal' including information on follow-up procedures of offences committed.

## PROPOSAL FOR A REVISION OF THE CROSS BORDER ENFORCEMENT (CBE) DIRECTIVE

Increased and well-publicised traffic law enforcement targeting the main risks of speeding, drink- and drug-driving, distraction and non-use of seatbelts on the road forms a fundamental part of achieving the new EU 2030 targets. The CBE directive is a tool that can help achieve greater compliance with traffic laws, improve road safety and ensure equal treatment of resident and foreign drivers by reducing impunity.

The Commission's proposal for a revision of the CBE directive aims to further facilitate the enforcement of financial penalties against drivers who commit an offence in a different EU Member State to the one where the vehicle is registered.

## PROPOSAL FOR A NEW DIRECTIVE ON THE UNION-WIDE EFFECT OF CERTAIN DRIVING DISQUALIFICATIONS

This completely new proposal states that driver disqualification should apply in future in all EU Member States, not just the country where the driving offences were committed. It lays down rules to facilitate this including a duty to notify the Member State that issued the driving licence of a driving disqualification imposed for the most dangerous offences including: drink-driving, speeding (although Member States may exempt the driver if the speed limits were exceeded by less than 50 km/h), driving under the influence of drugs and a traffic offence that has caused death or serious bodily injury.

<sup>32</sup> Category B - passenger vehicles weighing up to 3,500 kg and seating not more than eight passengers.

<sup>33</sup> Staging - whereby one licence category must be achieved before another can be granted.

<sup>34</sup> Category D1E - a vehicle of category D1 towing a heavy trailer (Category D1 - passenger vehicles built for fewer than 16 passengers and no longer than 8m).

<sup>35</sup> Category D1 - passenger vehicles built for fewer than 16 passengers and no longer than 8m.

<sup>36</sup> Category C1E - a vehicle of category C1 or B towing a heavy trailer; with a combined mass of up to 12,000 kg (Category C1 - goods vehicles between 3,500 kg and 7,500 kg and for up to eight passengers).

<sup>37</sup> Category CE - a vehicle of category C towing a heavy trailer (Category C - goods vehicles weighing more than 3,500 kg and seating not more than eight passengers).

<sup>38</sup> Category B - passenger vehicles weighing up to 3,500 kg and seating not more than eight passengers.

<sup>39</sup> Category B1 - quadricycles (optional).

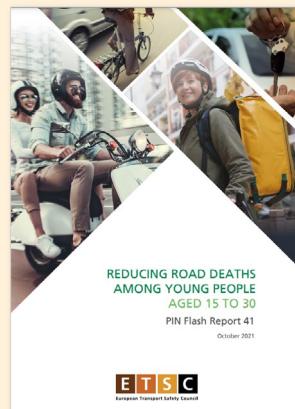
### 3.1.2 Next steps

All three proposals must now be scrutinised by the European Parliament and the Council before coming to a joint decision. ETSC's recommendations for all proposals can be found throughout this report.

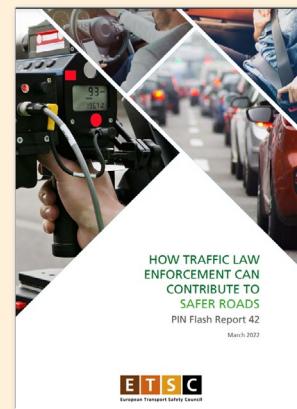
Further background and recommendations on all these topics can be found in the following PIN reports:



[www.etsc.eu/pinflash40](http://www.etsc.eu/pinflash40)



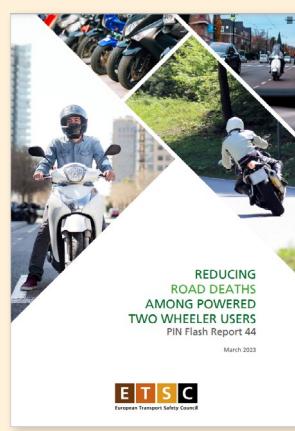
[www.etsc.eu/pinflash41](http://www.etsc.eu/pinflash41)



[www.etsc.eu/pinflash42](http://www.etsc.eu/pinflash42)



[www.etsc.eu/pinflash43](http://www.etsc.eu/pinflash43)



[www.etsc.eu/pinflash44](http://www.etsc.eu/pinflash44)

## RECOMMENDATIONS TO THE EUROPEAN INSTITUTIONS

Within the context of the EC proposal for the revision of the Driving Licence Directive 2006/126<sup>40</sup>:

- Do not allow the lowering of the minimum age for obtaining a driving licence for any vehicle category.
- Support the update to driver testing to include new technologies and autonomous and semi-autonomous driving.
- Support the first steps towards introducing a graduated licensing system that encourages young people to gain more experience with a probationary period including a zero-tolerance alcohol limit.<sup>41</sup>
- Introduce further restrictions to probationary periods such as limits on driving with peer passengers, at night as well as stricter demerit systems for this group of drivers.
- Develop and promote evidence-based guidelines for family doctors and other medical professionals involved in assessing the functional capabilities of someone suspected of being an unfit driver.<sup>42</sup>
- Welcome the provision to allow drivers with alcohol dependency to participate in a rehabilitation programme and be issued with a conditional licence with mandatory use of an alcohol interlock; call for the inclusion of medical supervision.<sup>43</sup>
- Make theoretical and practical training as well as a comprehensive practical test mandatory to obtain an AM driving licence and establish minimum standards for theoretical and practical training for AM and other categories of motorcycle.
- Support hazard perception training and testing for all vehicle categories.
- Extend the provisions set out for Group 2<sup>44</sup> drivers (professional training - CPC Directive) to apply also to Group 1<sup>45</sup> drivers using their driving licence for professional purposes.
- Do not support the proposed amendment for increasing the maximum weight of the B-category from 3.5 tonnes to 4.25 tonnes for cars.
- Delete from the proposal the option to allow children aged as young as 16 to drive any car up to 2.5 tonnes that has been adapted with a speed-limiting device set at 45 km/h with a B1 licence.

- Include a section in the theory test on how to behave if an emergency vehicle is approaching and what to do at the site of a collision.
- Introduce a European syllabus for first aid training, including guidance for the training of the trainers.

Within the context of the proposal for the revision of Directive 2015/413 concerning cross-border exchange of information on road safety-related traffic offences:<sup>46</sup>

- Strengthen the enforcement chain, including mandatory notification by the State of Offence in accordance with their national legislation.
- Adapt existing EU mutual assistance procedures to deal with cross-border road traffic offences.
- Develop common minimum standards on enforcement equipment and encourage use of EU funds for enforcement of the key offences in line with best practice.
- Introduce use of EU co-financing for police cross-border enforcement of road traffic law to increase safety.
- Encourage earmarking of national revenues from financial penalties for enforcement of road traffic law to increase safety.
- Fund research on enforcement in order to develop effective enforcement strategies and tactics (building on the work of previous EU-funded projects such as ESCAPE and PEPPER).
- Improve the reporting functionality of EUCARIS to report automatically to the European Commission the number of conducted and failed searches.
- Consider extension of scope to cover other road safety-related offences, including not respecting road-safety related requirements for access to restricted zones (such as pedestrian zones).

Union-Wide Effect of Certain Driving Disqualifications:<sup>47</sup>

- Support the principle of EU-wide recognition of certain driving disqualifications.
- Encourage EU Member States to set up and implement a demerit point system.
- Encourage all EU Member States to set up virtual driving licences with penalty points for non-resident drivers to deter recidivist offending while abroad.

<sup>40</sup> Proposal for a Directive on driving licences, amending Directive (EU) 2022/2561, Regulation (EU) 2018/1724 and repealing Directive 2006/126/EC and Commission Regulation (EU) No 383/2012 <https://bit.ly/3MwYzaW>

<sup>41</sup> ETSC (2021), PIN Flash 41 Reducing road deaths among young people, [www.etsc.eu/pinflash41](http://www.etsc.eu/pinflash41)

<sup>42</sup> ETSC (2021), PIN Flash 40, Are medical fitness to drive procedures fit for purpose? [www.etsc.eu/pinflash40](http://www.etsc.eu/pinflash40)

<sup>43</sup> Ibid.

<sup>44</sup> Drivers of vehicles of categories C, CE, C1, C1E, D, DE, D1 and D1E.

<sup>45</sup> Drivers of vehicles of categories A, A1, A2, AM, B, B1 and BE.

<sup>46</sup> Proposal for a Directive amending Directive (EU) 2015/413 facilitating cross-border exchange of information on road safety-related traffic offences <https://bit.ly/42Kbg7J>

<sup>47</sup> Proposal for a Directive on the Union-wide effect of certain driving disqualifications <https://bit.ly/3BD4wwK>

### 3.2 A MAJORITY OF COUNTRIES NOW HAVE 2030 NATIONAL ROAD SAFETY STRATEGIES

Country efforts will be critical across Europe for the implementation of the Safe System approach

and in the EU for achieving the 2030 targets. Of the 32 PIN countries, 20 have reported having a new road safety strategy in place, and in a further five, the plans are under development. Both Sweden and the Netherlands work with a system of activities and objectives. (Table 1).

Table 1.  
Road safety  
strategies  
in the PIN  
countries.

	New National Road Safety Strategy	Time period	Road death reduction target	Serious injury reduction target
AT <sup>48</sup>	YES, finalised	2021-2030	50% (2017-2019av.-2030)	50% (2017-2019av.-2030)
BE <sup>49</sup>	YES, finalised	2021-2030/2050	50%, less than 320 by 2030, 0 by 2050	50%, less than 1800 by 2030, less than 360 by 2050
BG <sup>50</sup>	YES, finalised	2020-2030	50% (2019-2030)	50% (2019-2030)
CY <sup>51</sup>	YES, finalised	2021-2030	50% (2019-2030)	50% (2019-2030)
CZ <sup>52</sup>	YES, finalised	2021-2030	50% (2017-2019av.-2030)	50% (2017-2019av.-2030)
DE <sup>53</sup>	YES, finalised	2021-2030	40% (2021-2030)	NO
DK <sup>54</sup>	YES, finalised	2021-2030	Max. 90 road deaths in 2030	Max. 900 seriously injured in 2030
EE <sup>55</sup>	Current	2016-2025	52% (2016-2025)	31% (2016-2025)
EL <sup>56</sup>	YES, finalised	2021-2030	50% (2019-2030)	50% (2019-2030)
ES <sup>57</sup>	YES, finalised	2022-2030	50% (2019-2030)	50% (2019-2030)
FI <sup>58</sup>	YES, finalised	2022-2026	50% (2020-2030)	50% (2020-2030)
FR	Under development	5-year plans	50% (2019-2030)	50% (2019-2030)
HR <sup>59</sup>	YES, finalised	2021-2030	50% (2019-2030)	50% (2019-2030)†
HU	YES, finalised	2023-2025	50% (2020-2030)	50% (2020-2030)
IE	YES, finalised	2021-2030	50% (2017-2019av.-2030)	50% (2017-2019av.-2030)
IT <sup>60</sup>	YES, finalised	2021-2030	50% (2019-2030)	50% (MAIS3+) (2019-2030)
LU <sup>61</sup>	Current	2019-2023	NO (Vision Zero)	NO (Vision Zero)
LV <sup>62</sup>	YES, finalised	2021-2027	50% (2020-2030)	50% (2020-2030)
LT <sup>63</sup>	YES, finalised	2020-2030	50% (2019-2030)	50%
MT	Current	2014-2024	NO	NO
NL <sup>64</sup>	Activity plans finalised	2018-2030	NO	NO
PL <sup>65</sup>	YES, finalised	2021-2030	50% (2019-2030)	50% (2019-2030)
PT <sup>66</sup>	Under approval	2023-2030	50% (2019-2030)	50% (2019-2030)
RO	Under development	n/a	NO	NO
SE	Management by objectives	2020-2030	50% (2017-2019av.-2030)	25% (2017-2019av.-2030)
SI <sup>67</sup>	Under development	2023-2030	Under development	Under development
SK <sup>68</sup>	YES, finalised	2021-2030	50% (2020-2030)	50% (2020-2030)
UK <sup>69</sup>	NO, Road Safety Statement 2019	June 2019-June 2021	NO	NO
CH	Current	No time limit	Max. 100 road deaths by 2030	Max. 2,500 serious injuries by 2030
IL <sup>70</sup>	YES, finalised	2022-2027	50% (2021-2027), less than three fatalities per billion-vehicle km	50% (2021-2030)
NO <sup>71</sup>	YES, finalised	2022-2025	Max. 50 deaths and serious injuries by 2030	Max. 350 deaths and serious injuries by 2030
RS	Under development	2023-2030	50% (2019-2030)	50% (2019-2030)

<sup>48</sup> Austrian Road Safety Strategy 2021-2030, <https://bit.ly/3ys7rlg>

<sup>49</sup> All For Zero, <https://bit.ly/3N5FUQM>

<sup>50</sup> The National Strategy for Road Safety until 2030 has been adopted - State Agency for Road Safety <https://bit.ly/37zu96e>

<sup>51</sup> Στρατηγικό Σχέδιο, <https://bit.ly/3alx6s9>

<sup>52</sup> Czech Road Traffic Safety Strategy 2021-2030, <https://bit.ly/3MYCAa0>

<sup>53</sup> Deutscher Bundestag, Verkehrssicherheitsprogramm der Bundesregierung 2021 bis 2030 <https://bit.ly/3FuVCCA>

<sup>54</sup> Road Safety Commission, 2021-2030 Action Plan, Summary, <https://bit.ly/3qxhoSR>

<sup>55</sup> Transpondiamet, Lehekülgje ei leitud, <https://bit.ly/34FvRxI>

<sup>56</sup> National Road Safety Strategic Plan, Greece 2030, <https://bit.ly/30076b1>

<sup>57</sup> Estrategia de Seguridad Vial 2030, <https://bit.ly/42m4Qej>

<sup>58</sup> Government resolution: Transport Safety Strategy aims to improve the safety of all modes of transport - Ministry of Transport and Communications <https://bit.ly/39UW5XT>

<sup>59</sup> Odлука o donošenju Nacionalnog plana sigurnosti cestovnog prometa Republike Hrvatske za razdoblje od 2021. do 2030. <https://bit.ly/3N3ginD>

<sup>60</sup> Piano Nazionale Sicurezza Stradale 2030, <https://bit.ly/3kUByjF>

<sup>61</sup> Plan d'action « sécurité routière » (2019-2023), <https://bit.ly/3vMmkhh>

<sup>62</sup> Satiksmes ministrija, Ceļu satiksmes drošības plāns 2021.-2027.gadam, <https://bit.ly/3g3t3Qp>

<sup>63</sup> Lietuvos Respublikos Vyriausybė (2020), Nutarimas dėl valstybinės eismo saugos programos „Vizija-nulis“ patvirtinimo, <https://bit.ly/34FqaQx>

<sup>64</sup> Veilig van deur tot deur, <https://bit.ly/43H29Wd>

<sup>65</sup> NARODOWY PROGRAM BEZPIECZENSTWA RUCHU DROGOWEGO 2021 - 2030, <https://bit.ly/3N35ohJ>

<sup>66</sup> Estratégia Nacional de Segurança Rodoviária 2021 / 2030, <https://visaozero2030.pt/>

<sup>67</sup> Resolucija o nacionalnem programu varnosti cestnega prometa za obdobje od 2013 do 2022 (ReNPVCP13-22), <https://bit.ly/2SQOs7I>

<sup>68</sup> Bezpečnosť cestnej premávky, <https://bit.ly/3wfe4uJ>

<sup>69</sup> Department for Transport, The Road Safety Statement 2019, A Lifetime of Road Safety, <https://bit.ly/3yVeVkk>

<sup>70</sup> 30 דע מילדי תחבורה תיכונית 50, <https://bit.ly/3stGW19>

<sup>71</sup> Meld. St. 20 (2020–2021), Melding til Stortinget Nasjonal transportplan 2022–2033, <https://bit.ly/2TuDLrm>

### 3.3 KPI DATA COLLECTION ACROSS THE PIN COUNTRIES

The EU's Road Safety Policy Framework 2021-2030 introduced, for the first time, a list of Key Performance Indicators (KPIs) which will be used to measure overall road safety performance. The KPIs were further detailed in the EU Strategic Action Plan on Road Safety.<sup>72</sup>

In an initial phase, eight KPIs have been chosen which will form the basis for monitoring progress in joint road safety work at EU, Member State, regional and local levels. The aim is to continue strengthening the existing KPIs and to develop additional ones.<sup>73</sup> To facilitate the work on data collection, the European Commission has offered financial support to Member States. The long-term goal is to collect comparable data, bearing in mind that some differences in national rules will constrain comparison for some indicators. Countries outside the EU may well find it helpful to adopt or adapt these KPIs and follow the EU monitoring and thus benefit from the experience gained by the participating Member States.

#### THE EIGHT EU KPIS ARE:

1. Percentage of vehicles travelling within the speed limit
2. Percentage of vehicle occupants using the safety belt or child restraint system correctly
3. Percentage of riders of powered-two-wheelers and bicycles wearing helmets
4. Percentage of drivers driving within the legal limit for blood alcohol content (BAC)
5. Percentage of drivers not using a handheld mobile device
6. Percentage of new passenger cars with a Euro NCAP safety ranking equal or above a predefined threshold
7. Percentage of distance driven over roads with a safety rating above an agreed threshold
8. Time elapsed in minutes and seconds between the emergency call following a collision resulting in personal injury and the arrival at the scene of the collision of the emergency services.

Key Performance Indicators can give a more complete picture of the level of road safety than just numbers of road deaths and serious injuries and can detect the emergence of problems at an earlier stage.<sup>74</sup> Furthermore, outcome targets can be set based on the data collected.

The 'Baseline' project supported by the European Commission and coordinated by the VIAS Institute was launched in 2020 to produce values for the EU Road Safety KPIs in the 18 Member States participating in the project. Each participating country provided between one and eight national KPI values that were comparable across countries and which met the minimum methodological requirements of the European Commission.<sup>75</sup> (see table 2 and 3)

The 'Baseline' project ended in 2022. Among the conclusions drawn from the project were:

- With the focus having been on developing a methodology that would allow for road safety indicators to be measured in a harmonised, internationally comparable way, no supplementary contextual data were collected to explain factors that might contribute to the large variations that were found between countries.
- Contextual data is also critical for establishing the relationship between the KPI performance and the severity of the applicable traffic law. This could apply for example to speed limits and also alcohol limits amongst other areas.
- A degree of freedom was given to countries when applying the KPI methodologies, but comparability between countries would improve if the methodological options available to each country were limited.
- The relationship between the KPI performance and road safety outcomes still needs to be analysed.

<sup>72</sup> ETSC (2019), Briefing EU Strategic Action Plan on Road Safety, <https://bit.ly/36Ua5Xe>

<sup>73</sup> Ibid.

<sup>74</sup> ETSC (2018), Briefing: 5th EU Road Safety Action Programme 2020-2030, <https://bit.ly/2LuTDBW>

<sup>75</sup> Baseline project, <https://baseline.vias.be/>

In 2023, as a follow-up to the 'Baseline' project, the 'Trendline' project started, supported by the European Commission and coordinated by SWOV.<sup>76</sup> In addition to the eight KPIs that had originally been defined by the European Commission and used within the 'Baseline' project, the 'Trendline' consortium will also identify some new indicators, develop appropriate methodologies and test these out on a limited scale. The 'Trendline' project brings together 29 European Countries (including 4 countries as observers). Participating Member States are indicated in Table 2.

Before the 'Baseline' project, countries applied different methodologies to collecting KPI data. Not all Member States were part of the 'Baseline' project and even those that were did not collect data for all KPIs. Some countries

continue to collect KPI data according to their own methodologies, not necessarily comparable with other countries. The level of detail of each KPI and the frequency of how often KPI data are collected therefore continues to differ between countries.

There is some way to go in terms of developing EU road safety KPIs, collecting the data and setting KPI targets (Tables 2 and 3). The KPI on safety belts seems the most widely collected, with 30 PIN countries reporting they collect or plan to collect data in the upcoming year for this KPI. Likewise, KPIs for speed compliance and the use of protective equipment are or soon will be widely used. The infrastructure, post-crash care and vehicle safety KPIs seem the least well advanced.

**Table 2.**  
Progress towards collecting EU KPIs and setting KPI targets.

= the KPI data have been collected and submitted in the context of the Baseline project  
= the KPI data are being collected or will be collected in the near future  
= the KPI data are not being collected  
= under discussion  
= the information was not available at the time of going to press.

	TRENDLINE PROJECT	SPEED	SPEED TARGET	SAFETY BELT	SAFETY BELT TARGET	PROTECTIVE EQUIPMENT	PROTECTIVE EQUIPMENT TARGET	ALCOHOL	ALCOHOL TARGET
AT	YES	YES	YES	YES	YES	YES	YES	YES	YES
BE	YES	YES	YES	YES	YES	YES	YES	YES	YES
BG	YES	YES	n/a	YES	n/a	YES	n/a	YES	n/a
CY	YES	YES	NO	YES	NO	YES	NO	YES	NO
CZ	YES	YES	YES	YES	YES	YES	YES	YES	YES
DE	YES	NO	NO	YES	NO	YES	NO	YES	NO
DK	YES	YES	NO	YES	NO	YES	NO	NO	n/a
EE	Observer	YES	YES	YES	YES	YES (bicycle)	YES	YES	YES
ES	YES	YES	NO	YES	NO	YES	NO	YES	NO
EL	YES	YES	YES	YES	YES	YES	YES	YES	YES
FI	YES	YES	NO	YES	NO	YES	NO	YES	NO
FR	YES	YES	n/a	YES	n/a	YES	n/a	YES	n/a
HR	YES	YES	n/a	YES	n/a	YES	n/a	YES	n/a
HU	YES	NO	NO	YES	NO	YES	NO	YES	NO
IE	YES	YES	tbd	YES	tbd	YES	tbd	YES	tbd
IT	YES	NO	tbd	YES	tbd	YES	tbd	YES	tbd
LU	YES	YES	n/a	YES	n/a	YES	n/a	YES	n/a
LV	YES	YES	n/a	YES	n/a	YES	n/a	YES	n/a
LT	YES	YES	n/a	YES	n/a	n/a	n/a	YES	n/a
MT	Observer	YES	tbd	YES	n/a	YES	tbd	NO	n/a
NL	YES	YES	tbd	YES	YES	NO	n/a	YES	n/a
PL	YES	YES	NO	YES	NO	YES	NO	YES	NO
PT	YES	YES	YES	YES	YES	YES	YES	YES	YES
RO	YES	NO	NO	NO	NO	NO	NO	NO	NO
SE	YES	YES	YES	YES	YES	YES	YES	YES	YES
SI	YES	YES	n/a	YES	n/a	YES (bicycle)	n/a	NO	n/a
SK	YES	YES	n/a	YES	n/a	YES	n/a	NO	n/a
UK	Not applicable	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
GB	Not applicable	YES	n/a	YES	n/a	YES	n/a	YES	n/a
CH	Observer	YES	NO	YES	NO	YES	NO	YES	n/a
IL	Not applicable	YES	YES (tbd)	YES	YES (tbd)	NO	YES (tbd)	YES	YES (tbd)
NO	Observer	YES	YES	YES	YES	YES (bicycle)	YES	YES	YES
RS	Not applicable	YES	YES	YES	YES	YES	YES	YES	YES

<sup>76</sup> Trendline project, <https://trendlineproject.eu/>

**Table 3.**  
Progress towards collecting EU KPIs and setting KPI targets.

= the KPI data have been collected and submitted in the context of the Baseline project  
 = the KPI data are being collected or will be collected in the near future  
 = the KPI data are not being collected  
 = under discussion  
 = the information was not available at the time of going to press.

	DISTRACTION	DISTRACTION TARGET	VEHICLE SAFETY	VEHICLE SAFETY TARGET	INFRA-STRUCTURE	INFRASTRUCTURE TARGET	POST-CRASH CARE	POST-CRASH CARE TARGET
AT	YES	YES	YES	tbd	YES	YES	YES	tbd
BE	YES	YES	YES	n/a	YES	n/a	YES	n/a
BG	YES	tbd	YES	tbd	NO	NO	NO	NO
CY	YES	NO	YES	NO	YES	NO	YES	YES
CZ	YES	YES	YES	YES	YES	YES	YES	YES
DE	YES	NO	NO	NO	NO	NO	YES	NO
DK	YES	NO	NO	NO	NO	NO	NO	NO
EE	YES	YES	NO	NO	tbd	tbd	NO	tbd
ES	YES	NO	YES	NO	NO	NO	NO	NO
EL	YES	YES	YES	YES	NO	YES	YES	YES
FI	YES	NO	YES	NO	YES	NO	YES	NO
FR	YES	n/a	YES	n/a	NO	n/a	NO	n/a
HR	YES	n/a	YES	n/a	YES	n/a	YES	n/a
HU	YES	NO	NO	NO	tbd	NO	NO	NO
IE	YES	tbd	YES	tbd	NO	tbd	NO	tbd
IT	NO	tbd	YES	tbd	tbd	tbd	NO	tbd
LU	YES	n/a	n/a	n/a	n/a	n/a	n/a	n/a
LV	YES	n/a	YES	n/a	YES	n/a	YES	n/a
LT	YES	n/a	YES	n/a	YES	n/a	YES	n/a
MT	YES	tbd	YES	NO	NO	n/a	YES	tbd
NL	YES	n/a	YES	n/a	YES	n/a	YES	YES
PL	YES	NO	NO	NO	NO	NO	NO	NO
PT	YES	YES	YES	YES	YES	YES	YES	YES
RO	NO	NO	NO	NO	NO	NO	NO	NO
SE	YES	NO	YES	YES	YES	YES	YES	NO
SI	NO	NO	NO	NO	NO	NO	NO	NO
SK	YES	n/a	YES	n/a	NO	n/a	NO	n/a
UK	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
GB	YES	n/a	n/a	n/a	NO	NO	n/a	n/a
CH	YES	NO	NO	NO	NO	NO	NO	NO
IL	YES	NO	NO	tbd	NO	NO	NO	NO
NO	NO	n/a	NO	n/a	NO	n/a	NO	n/a
RS	YES	YES	NO	n/a	NO	n/a	NO	n/a

## **RECOMMENDATIONS TO NATIONAL GOVERNMENTS ON NATIONAL ROAD SAFETY STRATEGIES AND KPIs**

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- In EU Member States, fast-track data collection for the Key Performance Indicators included in the EU Road Safety Policy Framework 2021-2030 and report them to the European Commission.
- For countries who have not yet done so: set targets to halve the number of road deaths and serious injuries over the period 2020-2030 in line with the EU Road Safety Policy Framework 2020-2030.
- Set ambitious national KPI targets and work towards achieving them.
- Allocate the necessary budget to collect data.

## **RECOMMENDATIONS TO THE EUROPEAN COMMISSION ON KPIs**

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- In the medium term, set the KPI outcome targets to match the outcome performance of the three best performing countries for each KPI (when possible).
- Publish updated data regularly, at least every two years, ahead of the EU Road Safety Results Conference.
- Extend and improve the current KPIs based on ETSC recommendations.<sup>77</sup>
- Continue to support Member States in collecting harmonised data.

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<sup>77</sup> ETSC (2019), Briefing: EU Strategic Action Plan on Road Safety, <https://bit.ly/3ihmcW7>

## PART IV

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# POLAND: WINNER OF THE 2023 ROAD SAFETY PIN AWARD



# POLAND

## WINNER OF THE 2023 ROAD SAFETY PIN AWARD

INTERVIEW WITH ANDRZEJ ADAMCZYK, POLISH MINISTER  
OF INFRASTRUCTURE



This is the first time that Poland has won the PIN award. What measures have contributed to the sustained reduction in road deaths over the last decade ?

Nearly eight years ago, we set an ambitious goal: Polish roads must be much safer. Poland must stop lagging behind other European countries in the statistics. We have based our efforts on three pillars.

The first is investments. Thanks to the improvement of the quality of roads by expanding single-carriageway roads to dual-carriageway, subsidising local roads, building new intersections, and illuminating pedestrian crossings, fewer road users are exposed to danger.

The second pillar is education. We organise social campaigns to educate people and show them how terrible the consequences of improper behaviour on the road can be. We also enrich the general education system with road safety topics as part of traffic-related education.

The third pillar of the government's efforts is to change the law. We strive to make legislation define the rights, but also the duties of all traffic participants in the best possible way.

In 2019, as part of the legal changes, the government introduced rules for forming emergency corridors, and zippered merging was made mandatory. Subsequently, the speed limit in built-up areas regardless of the time of day was standardised to 50 km/h and the scope of protection of pedestrians in crossing areas was increased. This change was linked to the introduction of some obligations for pedestrians as well. They must exercise extreme caution and must not use mobile phones and other devices that impair normal perception, especially visual perception, when entering or crossing a roadway or track.

Another change was the introduction, from 1 June 2021, of the requirement to maintain a safe distance between vehicles on motorways and expressways. The value of the required distance in meters is equal to half of the speed of the vehicle in km/h. For example, at the speed of 120 km/h, the mandatory safe distance is at least 60 m.

Further improvements in traffic safety are linked to a new traffic fine scale and tougher penalties for traffic offences, introduced at the beginning of 2022.

In addition, last year, insurance companies gained access to information on fines paid by and penalty points imposed on drivers. This should further encourage safe driving by enabling lower insurance rates for safe drivers.

In less than a year, legislation will also go into effect to allow the confiscation of vehicles from drink drivers and those driving under the influence of other intoxicants. This is another solution to help improve the safety of vulnerable road users. Our goal is to completely eliminate the participation in traffic of those who do not care about human life. I hope that the legislation prepared by the Minister of Justice on the confiscation of vehicles for these crimes, which will come into force in March 2024, will allow for a noticeable improvement in this regard as well.

We build new roads, but we also make sure that road operators take care of the safety of those roads when

conducting their investment projects. In cooperation with specialists from Polish universities, we have prepared a number of models and standards in road construction, including guidelines for the design of pedestrian crossings and the design of lighting for these crossings, as well as the design of infrastructure for bicycles.

### **The National Road Safety Programme 2021-2030 sets a target to reduce deaths and serious injuries by 50%. What are the main priorities and objectives of the plan?**

The programme was prepared based on the experience of earlier programmes conducted in Poland, taking into account the latest trends and the most effective solutions, and, most importantly, based on a clearly defined vision and principles of implementation.

The national strategy is complemented by documents that form the financial framework for the implementation of infrastructure investment projects, namely the National Road Construction Programme to 2023 and its continuation until 2030, the Programme for the Construction of 100 bypasses for 2020-2030, and the Safe Road Infrastructure Programme 2021-2024. Also, the National Roads Maintenance Programme for the years 2020-2030, which includes elements of road traffic safety, will be implemented starting in 2025.

Under the Safe Road Infrastructure Programme alone, 756 projects covering a total of about 8,000 locations nationwide have been scheduled for implementation in 2021-2022. By the end of 2022, 128 projects had been completed, including improved safety at 514 pedestrian crossings across the country. Construction of pedestrian routes along national roads was the subject matter of 42 projects. Also, 298 projects are in progress.

### **A wave of new road safety legislation came into force over the last two years. Can you say something about the legislation that has been passed and what has been the driving force behind it?**

The actions I mentioned are yielding tangible results. In 2022, there was a very marked decrease in the number of traffic collisions, as well as the number of people killed and injured, compared to 2019, which was the last year before the restrictions related to the COVID-19 pandemic were introduced. The data

show that there was a drop of about 30 percent in the number of collisions during that period. The number of people killed fell by almost 35 percent, while the number of injured in these incidents was about 30 percent lower. It is particularly gratifying that the number of pedestrians who lost their lives in collisions dropped significantly. The decline in this case was as much as 43 percent.

We also realised that the pandemic disrupted mobility and further affected road traffic safety. As the pandemic ended, the supporting factor that was in place during that period, was reduced. That is why it was so important to strengthen the system of measures to improve road traffic safety by preparing and implementing concrete solutions. As a result, Poland has not only avoided a resurgence in the number of road traffic incidents, as is currently the case in many countries of the EU, but has even accelerated the decline in the number of deaths and injuries.

### **Poland has taken part in the European Commission's Baseline project to work on road safety indicator data and will also take part in its successor project, Trendline. How will road safety initiatives in Poland take account of the new data ?**

We hope that the data collected in projects of this kind will help to further determine which areas of road traffic safety in Poland require further changes and improvement. Key Performance Indicators (KPIs) have already been identified in 2021 in the National Road Safety Programme 2021-2030 as one of the key elements for monitoring the improvement of the state of road traffic safety and indicators of the effectiveness of the actions taken in all pillars.

### **Speed is a major factor in overall road safety performance. Poland recently abolished the 60km/h night time speed limit in urban areas, but with a motorway speed limit of 140km/h, Poland has one of the highest speed limits in the EU. What is Poland doing to reduce speeding on its roads, in particular on rural roads?**

Insufficient spacing between vehicles is one of the most important risk factors on motorways and expressways. For this reason, in 2021, we introduced the aforementioned regulation on the minimum distance. When carrying out road safety activities in Poland, we prioritise them at the outset. In this regard,

I would like to emphasise that in 2022 the vast majority of collisions occurred on two-way single-carriageway roads: there were 16,840 such collision, accounting for 79% of all collisions, with 1,601 people killed and 19,494 injured. That is as much as nearly 85% of the total number of people killed in traffic collisions and nearly 80% of the total number of those injured. Therefore, it is our ambition to convince Poles to use the modern road infrastructure closest to them, including free motorways. By taking this approach, we can bring about a reduction in the risks faced by traffic participants on the types of roads you mentioned.

**Many cities (and some countries) in the EU are opting to apply a 30km/h speed limit in urban areas in order to improve the safety of pedestrians and cyclists. Is this something also being considered in Poland?**

In Poland, there are no legislative barriers to such measures and they are increasingly being implemented by road operators and in city centres and smaller towns. However, we ask that those who plan these measures should make in-depth studies and simulations of the movement of all traffic participants also by carefully studying traffic intensity in specific areas. At the same time, it is impossible to ignore the opinion of local communities when planning the implementation of such measures.

#### **How is Poland tackling the problem of drink-driving/drug-driving?**

Poland has made significant progress in recent years in this area. At the same time, I admit that there is still much to be done. Our goal is to eliminate the possibility of participation in traffic by those who do not care about human life and get behind the wheel after consuming alcohol and other drugs. I hope that the legislation prepared by the Minister of Justice, coming into force in March 2024, which concerns - following the example of some other countries of the EU - the confiscation of vehicles from people who have driven after drinking or under the influence of other intoxicants, will lead to a noticeable improvement in this regard as well.

#### **What are your hopes for the upcoming revision of the Driving Licence Directive?**

I hope that the measures taken by the EU will further improve the level of road safety, with close substantive cooperation with EU Member States. One of our common goals is to raise the level of skills, knowledge, and experience of drivers, and to introduce restrictions and adequate sanctions for dangerous behaviour. It is particularly important to prepare young drivers more effectively for informed and responsible road use, to better protect vulnerable road users, but also to convince the EU public to support zero tolerance of driving under the influence of alcohol and other intoxicants.

# ANNEXES

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

**Table 1 (Fig. 1 and 2) Road deaths and relative change in road deaths between 2021 and 2022 and 2019 and 2022**

	2019	2020	2021	2022	Fig.1 2021-2022	Fig.2 2019-2022
AT	416	344	362	370	-25.4%	-35.5%
BE <sup>(1)</sup>	644	499	516	521	-23.1%	-34.8%
BG	628	463	561	531	-18.4%	-28.8%
CY	52	48	45	37	-17.8%	-22.6%
CZ <sup>(1)</sup>	617	517	531	527	-15.5%	-19.1%
DE <sup>(1)</sup>	3,059	2,719	2,562	2,776	-15.1%	-16.7%
DK <sup>(1)</sup>	199	163	130	154	-9.1%	-15.4%
EE	52	60	55	50	-8.2%	-14.6%
ES <sup>(1)</sup>	1,755	1,370	1,533	1,759	-5.8%	-14.4%
FI <sup>(1)</sup>	211	223	225	191	-5.3%	-12.2%
FR <sup>(1)</sup>	3,244	2,541	2,944	3,260	-3.6%	-11.1%
EL <sup>(1)</sup>	688	584	624	635	-1.7%	-7.7%
HR	297	237	292	275	-0.8%	-7.4%
HU <sup>(1)</sup>	602	464	544	535	1.0%	-3.8%
IE <sup>(1)</sup>	140	147	136	157	1.8%	-3.2%
IT <sup>(1)</sup>	3,173	2,390	2,875	3,170	2.2%	-1.9%
LU	22	26	24	36	6.1%	-1.1%
LV	132	139	147	113	8.0%	-0.4%
LT	186	175	147	120	8.4%	-0.1%
MT <sup>(3)</sup>	16	12	9	26	10.3%	0.2%
NL <sup>(1)</sup>	661	610	582	737	10.7%	0.5%
PL	2,909	2,491	2,245	1,896	14.7%	2.7%
PT <sup>(1)</sup>	626	509	532	614	15.4%	3.6%
RO <sup>(3)</sup>	1,864	1,646	1,779	1,634	18.2%	7.4%
SE	221	204	192	227	18.5%	11.4%
SI	102	80	114	85	20.5%	11.5%
SK	245	224	226	244	26.6%	28.9%
UK <sup>(2)</sup>	1,808	1,516	1,608	1,750	34.9%	62.5%
GB <sup>(1)</sup>	1,752	1,460	1,558	1,695	50.0%	63.6%
CH	187	227	200	241	188.9%	
IL	355	305	364	351		
NO	108	93	86	116		
RS	534	492	521	553		
<b>EU 27</b>	<b>22,761</b>	<b>18,885</b>	<b>19,932</b>	<b>20,680</b>	<b>3.7%</b>	<b>-9.1%</b>

Source: national statistics provided by the PIN panellists for each country

<sup>(1)</sup> National provisional data used for 2022 as the final figures for 2022 were not yet available at the time of going to print

<sup>(2)</sup> 2022 estimate is based on GB and Northern Ireland provisional data

<sup>(3)</sup> CARE provisional data

**Table 2 (Fig. 3 and 10) Road deaths and relative change in road deaths between 2012 and 2022**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>AT</b>	531	455	430	479	432	414	409	416	344	362	370
<b>BE<sup>(1)</sup></b>	827	764	745	762	670	609	604	644	499	516	521
<b>BG</b>	605	601	655	708	708	682	611	628	463	561	531
<b>CY</b>	51	44	45	57	46	53	49	52	48	45	37
<b>CZ<sup>(1)</sup></b>	742	654	688	734	611	577	658	617	517	531	527
<b>DE<sup>(1)</sup></b>	3,601	3,340	3,368	3,459	3,206	3,177	3,275	3,059	2,719	2,562	2,776
<b>DK<sup>(1)</sup></b>	167	191	182	178	211	175	171	199	163	130	154
<b>EE</b>	87	81	78	67	71	48	67	52	60	55	50
<b>ES<sup>(1)</sup></b>	1,903	1,680	1,688	1,689	1,810	1,830	1,806	1,755	1,370	1,533	1,759
<b>FI<sup>(1)</sup></b>	255	258	229	270	258	238	239	211	223	225	191
<b>FR<sup>(1)</sup></b>	3,653	3,268	3,384	3,461	3,477	3,448	3,248	3,244	2,541	2,944	3,260
<b>EL<sup>(1)</sup></b>	988	879	795	793	824	731	700	688	584	624	635
<b>HR</b>	393	368	308	348	307	331	317	297	237	292	275
<b>HU<sup>(1)</sup></b>	605	591	626	644	607	625	633	602	464	544	535
<b>IE<sup>(1)</sup></b>	163	188	192	162	182	154	135	140	147	136	157
<b>IT<sup>(1)</sup></b>	3,753	3,401	3,381	3,428	3,283	3,378	3,334	3,173	2,390	2,875	3,170
<b>LU</b>	34	45	35	36	32	25	36	22	26	24	36
<b>LV</b>	177	179	212	188	158	136	148	132	139	147	113
<b>LT</b>	302	258	267	242	192	192	173	186	175	147	120
<b>MT<sup>(3)</sup></b>	9	18	10	11	22	19	18	16	12	9	26
<b>NL<sup>(1)</sup></b>	650	570	570	620	629	613	678	661	610	582	737
<b>PL</b>	3,571	3,357	3,202	2,938	3,026	2,831	2,862	2,909	2,491	2,245	1,896
<b>PT<sup>(1)</sup></b>	718	637	638	593	563	602	675	626	509	532	614
<b>RO<sup>(3)</sup></b>	2,042	1,861	1,818	1,893	1,913	1,951	1,867	1,864	1,646	1,779	1,634
<b>SE</b>	285	260	270	259	270	253	324	221	204	192	227
<b>SI</b>	130	125	108	120	130	104	91	102	80	114	85
<b>SK</b>	296	223	259	274	242	250	229	245	224	226	244
<b>UK<sup>(2)</sup></b>	1,802	1,770	1,854	1,804	1,860	1,856	1,839	1,808	1,516	1,608	1,750
<b>GB<sup>(1)</sup></b>	1,754	1,713	1,775	1,730	1,792	1,793	1,784	1,752	1,460	1,558	1,695
<b>CH</b>	339	269	243	253	216	230	233	187	227	200	241
<b>IL</b>	303	311	319	355	376	364	316	355	305	364	351
<b>NO</b>	145	187	147	117	135	106	108	108	93	86	116
<b>RS</b>	688	650	536	599	607	579	548	534	492	521	553
<b>EU 27</b>	26,538	24,296	24,183	24,413	23,880	23,446	23,357	22,761	18,885	19,932	20,680

Source: national statistics provided by the PIN panellists for each country

<sup>(1)</sup> National provisional data used for 2022 as the final figures for 2022 were not yet available at the time of going to print

<sup>(2)</sup> 2022 estimate is based on GB and Northern Ireland provisional data

<sup>(3)</sup> CARE provisional data

<sup>(4)</sup> The average annual change is based on the entire time series of all the ten annual numbers of road deaths between 2012 and 2022, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: <https://bit.ly/2LvvUty>

Fig.3 2012-2022	
LT	-60.3%
PL	-46.9%
EE	-42.5%
BE <sup>(1)</sup>	-37.0%
LV	-36.2%
EL <sup>(1)</sup>	-35.7%
SI	-34.6%
AT	-30.3%
HR	-30.0%
CZ <sup>(1)</sup>	-29.0%
CH	-28.9%
CY	-27.5%
FI <sup>(1)</sup>	-25.1%
DE <sup>(1)</sup>	-22.9%
SE	-20.4%
NO	-20.0%
RO <sup>(3)</sup>	-20.0%
RS	-19.6%
SK	-17.6%
IT <sup>(1)</sup>	-15.5%
PT <sup>(1)</sup>	-14.5%
BG	-12.3%
HU <sup>(1)</sup>	-11.6%
FR <sup>(1)</sup>	-10.8%
DK <sup>(1)</sup>	-7.8%
ES <sup>(1)</sup>	-7.6%
IE <sup>(1)</sup>	-4.3%
UK <sup>(2)</sup>	-2.9%
LU	5.9%
NL <sup>(1)</sup>	13.4%
IL	15.8%
MT <sup>(3)</sup>	188.9%

EU27 -22.1%

Fig. 10 Annual average change in the number of road deaths 2012-2022 <sup>(4)</sup>		
NO	-5.3%	
EE	-5.0%	
PL	-5.0%	
BE	-4.9%	
LV	-4.5%	
EL	-4.4%	
SI	-3.6%	
AT	-3.6%	
LU	-3.6%	
HR	-3.4%	
CZ	-3.3%	2012-2021
CH	-3.2%	
IT	-3.1%	2012-2021
DE	-2.9%	
FI	-2.8%	2014-2020
SE	-2.4%	2012-2020
RS	-2.3%	
BG	-2.1%	
DK	-1.9%	2012-2021
ES	-1.8%	2012-2021
HU	-1.7%	
PT	-1.7%	
SK	-1.5%	
CY	-1.3%	
RO	-1.2%	2012-2021
GB	-1.0%	
MT	0.5%	2012-2021
IL	0.6%	2013-2022
NL	0.9%	2012-2020
EU22	-2.6%	

IE	Excluded from Fig.10
LT	Excluded from Fig.10
UK	Excluded from Fig.10

**Table 3 (Fig. 6)** Road deaths per million inhabitants in 2022 and 2012

2022			2012				
	Road deaths	Inhabitants		Road deaths	Inhabitants		
			Deaths per mln inhabitants		Deaths per mln inhabitants		
NO	116	5,425,270	21	145	4,985,870	29	
SE	227	10,452,326	22	285	9,482,855	30	
UK <sup>(1)</sup>	1,750	67,600,000	26	1,802	62,989,551	29	
DK <sup>(1)</sup>	154	5,873,420	26	167	5,580,516	30	
CH	241	8,738,791	28	339	7,954,662	43	
IE <sup>(1)</sup>	156	5,060,004	31	163	4,582,769	36	
DE <sup>(1)</sup>	2,776	83,237,124	33	3,601	81,843,743	44	
FI <sup>(1)</sup>	191	5,548,241	34	255	5,401,267	47	
IL	351	9,586,937	37	303	8,012,400	38	
ES <sup>(1)</sup>	1,759	47,432,893	37	1,903	46,196,276	41	
EE	50	1,331,796	38	87	1,339,662	65	
SI	85	2,107,180	40	130	2,055,496	63	
CY	37	904,705	41	51	862,011	59	
AT	370	8,978,929	41	531	8,443,018	63	
NL <sup>(1)</sup>	737	17,590,672	42	650	16,730,348	39	
LT	120	2,805,998	43	302	3,007,758	100	
BE <sup>(1)</sup>	521	11,617,623	45	827	11,094,850	75	
SK	244	5,434,712	45	296	5,404,322	55	
FR <sup>(2)</sup>	3,260	67,842,591	48	3,653	63,409,191	58	
MT <sup>(4)</sup>	26	520,971	50	9	417,520	22	
CZ <sup>(1)</sup>	527	10,516,707	50	742	10,505,445	71	
PL	1,896	37,654,247	50	3,571	38,538,447	93	
IT <sup>(1)</sup>	3,170	59,030,133	54	3,753	60,820,696	62	
LU	36	645,397	56	34	524,853	65	
HU <sup>(1)</sup>	535	9,689,010	55	605	9,957,731	61	
EL <sup>(1)</sup>	635	10,459,782	61	988	11,290,067	88	
LV	113	1,875,757	60	177	2,041,763	87	
PT <sup>(3)</sup>	614	9,855,909	62	718	10,541,840	68	
HR	275	3,862,305	71	393	4,275,948	92	
BG	531	6,838,937	78	605	7,327,244	83	
RS	553	6,690,887	83	688	7,241,295	95	
RO <sup>(4)</sup>	1,634	19,042,455	86	2,042	21,355,849	96	
EU 27	20,679	446,209,824	46	EU 27	26,538	495,982,695	54

Source: national road death statistics provided by the PIN panellists for each country, completed with Eurostat for population data

<sup>(1)</sup> National provisional estimates used for 2022, as the final figures for 2022 were not yet available when this report went to print

<sup>(2)</sup> FR: continental population data

<sup>(3)</sup> PT: continental population estimate. 2022 road deaths and continental population data provided by the National Road Safety Authority (ANSR)

<sup>(4)</sup> CARE provisional data

**Table 4** (Fig. 7) Road deaths per billion vehicle-kilometres over three recent years

	Road deaths (3-year average)	Vehicle-km in million (3-year average) <sup>(1)</sup>	Deaths per billion vh-km (3-year average)	Time period covered
NO	98	44,741	2.2	motorcycles not included, 2019-2021
SE	208	80,110	2.6	
DK	149	50,367	3.0	
GB	1,665	511,367	3.1	
CH	223	66,641	3.3	
IE	141	41,729	3.4	2019-2021
SK	231	59,769	3.9	
DE	2,686	693,333	3.9	
FI	220	49,078	4.5	2019-2021
EE	56	11,493	4.8	2019-2021
AT	374	76,566	4.9	2019-2021
NL	636	128,394	4.9	motorcycles not included, 2019-2020
SI	99	19,848	5.0	2019-2021
FR	2,910	567,875	5.1	2019-2021
IL	341	60,771	5.6	2019-2021
MT	14	2,223	6.3	2019-2020
IT	2,812	411,610	6.8	2019-2021
ES	1,644	232,645	7.1	2019-2020
PT	556	68,229	8.1	2019-2021
CZ <sup>(2)</sup>	555	54,502	8.9	2019-2021 km for roads where 87% of deaths occur
LV	139	13,683	10.2	2019-2021
HR	268	25,843	10.4	
PL	2,754	240,979	11.4	2019-2021
LT	147	12,605	11.7	
HU	566	44,314	12.8	only main roads, 2019-2021
EU21	15,008	2,577,506	5.7	
UK		n/a		
RS		n/a		
BE		n/a		
BG		n/a		
CY		n/a		
EL		n/a		
LU		n/a		
RO		n/a		

EU21: EU27 excluding BE, BG, CY, ES, EL, LU, MT, NL and RO due to lack of data on vehicle distance travelled

<sup>(1)</sup> Data provided by PIN panellists. Member States are using different methods for estimating the numbers of distance travelled

<sup>(2)</sup> CZ: data on the number of vehicle-km is estimated by traffic counting for motorways and roads of 1st, 2nd and 3rd class category where 87% of all road deaths occur. Local roads where 17% of all road deaths occur are not counted. Therefore, the number of road deaths per vehicle-km is calculated for 83% of all road deaths.

**Table 5 (Fig. 8, 9, 10)**

Number of seriously injured according to national definition (see table 6 for definition) and MAIS3+, relative change in serious injuries between 2011-2021 and annual average relative change over the period 2011-2021.

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AT*	8,017	7,344	7,434	7,486	7,566	7,664	7,631	7,384	6,650	6,945	7,258
AT MAIS3+	1,546	1,397	1,402	1,303	1,380	1,238	1,279	1,211	988	1,078	
BE*	4,736	4,581	4,484	4,181	4,095	3,762	3,637	3,605	2,978	3,098	3,368
BE MAIS3+	4,101	4,132	3,965	3,660	3,691	3,733	3,549	3,736	3,240	3,402	
BG	2,204	2,303	2,174	2,295	2,503	1,943	1,988	1,937	1,556	1,458	1,766
BG MAIS3+	2,204	2,034	2,175	2,295	2,503	1,943	1,988	1,937	1,556	1,458	1,766
CY*	551	407	467	377	406	388	348	340	211	252	253
CY MAIS3+			83			92	85				
CZ	2,934	2,721	2,714	2,487	2,530	2,286	2,395	2,061	1,761	1,580	
CZ MAIS3+											
DE*	66,279	64,045	67,709	67,706	67,426	66,513	67,967	65,244	57,983	54,826	57,306
DE MAIS3+			14,645							12,244	
DK	1,952	1,891	1,798	1,780	1,797	1,756	1,862	1,822	1,716	1,639	
DK MAIS3+											
EE*	476	501	455	407	424	429	420	356	346	352	404
EE MAIS3+											
ES	10,444	10,086	9,574	9,495	9,755	9,546	8,935	8,613	6,681	7,784	
ES MAIS3+	7,047	6,613	6,343	6,955			6,059	6,162	4,793		
FI			519	477	460	409	485	390	408		
FI MAIS3+			519	477	460	409	485	390	408		
FR*	27,142	25,966	26,635	26,595	27,187	27,732					
FR MAIS3+	16,764	15,841	16,496	16,355	16,773	16,887	16,104	16,248	13,337	15,944	16,000
EL*	1,399	1,212	1,016	999	879	706	727	652	518	610	636
EL MAIS3+											
HR	3,049	2,831	2,675	2,822	2,746	2,776	2,731	2,492	2,302	2,610	2,910
HR MAIS3+											
HU	4,921	5,369	5,331	5,575	5,539	5,627	5,559	5,482	4,655	4,596	5,030
HU MAIS3+											
IE <sup>(*)</sup> *	474	508	759	827	965	1,053	1,359	1,505	1,145	1,357	
IE MAIS3+			343								
IT											
IT MAIS3+	13,112	12,899	14,943	15,901	17,324	17,309	18,614	17,600	14,102	15,990	
LU*	339	316	245	319	249	256	273	248	217	267	265
LU MAIS3+				69	69	43	55				
LV*	493	452	434	479	525	496	542	461	491	449	429
LV MAIS3+											
LT	1,562	1,481	1,437	724	655	368	165	308	376	392	476
LT MAIS3+	-	-	-	147	71	131	163	110	86	81	74
MT	300	265	292	306	294	304	317	305	242	339	
MT MAIS3+											
NL	19,500	18,800	20,700	21,300	21,400	20,800	21,700	21,400	19,700		
NL - MAIS3+	6,400	6,500	5,800	6,000	6,400	6,500	6,800	6,900	6,500		
PL	12,049	11,672	11,696	11,200	12,077	11,103	10,941	10,633	8,805	8,276	7,541
PL MAIS3+		1,859	2,263								
PT*	1,941	1,946	2,010	2,148	1,999	2,117	1,995	2,168	1,723	1,987	2,097
PT MAIS3+	2,111	2,074	2,055	2,171	2,199	2,301	2,276	2,281	2,201	2,258	2,288
RO	8,860	8,156	8,122	9,057	8,285	8,181	8,144	8,125	5,484	3,787	
RO MAIS3+											
SE	4,450	4,826	4,889	4,313	4,472	4,371	4,160	3,850	3,600		
SE MAIS3+	1,032	1,091	1,159	906	962	903	921	790	833		
SI	848	708	826	926	850	851	821	814	678	784	862
SI MAIS3+			213								
SK	1,122	1,086	1,098	1,121	1,057	1,127	1,272	1,050	914	869	882
SK MAIS3+											
UK*											
UK MAIS3+	5,160	5,236	5,741	6,092	6,547						
GB	33,692	31,788	33,555	32,132	30,899	29,766	30,204	29,122	22,627	25,739	28,100
GB MAIS3+	5,062	5,174	5,667	6,012	6,479						
CH*	4,202	4,129	4,043	3,830	3,785	3,654	3,873	3,639	3,793	3,933	4,002
CH MAIS3+	3,262	3,204	2,899	2,887	2,929	3,127	3,732	3,086	3,294		
IL <sup>(*)</sup> *	1,611										
IL MAIS3+		2,086	2,031	2,190	2,474	2,366	2,181	2,409	2,067	2,449	2,523
NO	703	712	683	693	656	665	602	565	627	569	578
NO MAIS3+											
RS	3,544	3,422	3,275	3,448	3,362	3,514	3,338	3,322	2,953	3,347	3,292
RS MAIS3+											

EU22    162,790    156,632    161,993    163,422    165,099    162,027    163,223    157,640    133,350    134,442    140,217

- \* Similar national serious injury definition. EU21: EU27 excluding LT, and IE due to inconsistent data trend and FI, LU, NL and SE due to lack of updated data. EU21 average is an ETSC estimate as whole time series for serious injury data are not available in all 21 EU countries that collect data
- (1) IE: serious injury data collection changed in 2014
- (2) IL: serious injury data collection changed in 2013
- (3) The average annual change is based on the entire time series of all the ten annual numbers of serious injuries between 2011 and 2021, and estimates the average exponential trend. For more information, read the methodological note, PIN Flash 6: <https://bit.ly/2LVVUtY>

	<b>Fig. 8 2012- 2022</b>	<b>Time period</b>
RO	-57.3%	2012-2021
EL	-54.5%	
CY	-54.1%	
CZ	-46.1%	2012-2021
PL	-37.4%	
BE	-28.9%	
ES	-25.5%	2012-2021
LU	-21.8%	
SK	-21.4%	
FI	-21.4%	2014-2020
BG	-19.9%	
SE	-19.1%	2012-2020
NO	-17.8%	
GB	-16.6%	
DK	-16.0%	2012-2021
EE	-15.1%	
DE	-13.5%	
LV	-13.0%	
AT	-9.5%	
RS	-7.1%	
CH	-4.8%	
HR	-4.6%	
FR	-4.6%	
NL	1.0%	2012-2020
SI	1.7%	
HU	2.2%	
PT	8.0%	
MT	13.0%	2012-2021
IL	20.9%	2013-2022
IT	21.9%	2012-2021

**EU22 -13.9%**

<b>Fig.10 Annual average change in the number of serious injuries 2011-2021<sup>(3)</sup></b>		
EL	-8.5%	
CY	-7.5%	
RO	-6.3%	2012-2021
CZ	-6.0%	2012-2021
BE	-4.4%	
PL	-4.2%	
BG	-4.0%	
FI	-3.8%	2014-2020
ES	-3.7%	2012-2021
SE	-3.0%	2012-2020
EE	-3.0%	
GB	-2.8%	
LU	-2.4%	
NO	-2.4%	
SK	-2.3%	
DE	-1.7%	
DK	-1.2%	2012-2021
HR	-1.1%	
AT	-1.0%	
HU	-0.9%	
FR	-0.8%	
RS	-0.8%	
CH	-0.6%	
LV	-0.4%	
SI	-0.4%	
PT	0.0%	
MT	0.5%	2012-2021
NL	0.8%	2012-2020
IL	1.6%	2013-2022
IT	2.3%	2012-2021

**EU22 -1.8%**

<b>IE</b>	Excluded from Fig.10
<b>LT</b>	Excluded from Fig.10
<b>UK</b>	Excluded from Fig.10

<b>Fig. 9*</b>			
	<b>Serious injuries (national def) per death</b>	<b>MAIS3+ per death</b>	<b>Time period</b>
AT	19.4	2.9	
BE	6.1	6.3	
BG	3.1	3.1	
CY	5.5		
CZ	3.2		2019-2021
DE	21.1		
DK	10.5		2019-2021
EE	6.7		
ES	5.0	3.5	
FI	1.9	1.9	2018-2020
FR	8.2	5.0	2015-2017
EL	1.0		
HR	9.7		
HU	9.3		
IE	9.5		2019-2021
IT	5.7	5.7	2019-2021
LU	8.7		2018-2020
LV	3.4		
LT	2.8	0.5	
MT	23.9		2019-2021
NL	32.2	10.4	2018-2020
PL	3.7		
PT	3.5	4.1	
RO	3.3		2019-2021
SE	15.5	3.4	2018-2020
SI	8.3		
SK	3.8		
GB	16.3		
CH	19.1	15.6	2019-2021
IL	6.9	6.9	
NO	6.0		
RS	6.1		

\*Numbers between countries are not comparable

**Table 6.** National definitions of a seriously injured person in a road collision in Police records corresponding to the data in Table 5.

<b>AT</b>	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.
<b>BE</b>	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)
<b>BG</b>	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.
<b>CY</b>	Hospitalised for at least 24 hours. Police records. Since 2017, serious injuries based on MAIS3+ is also estimated by the Ministry of Health.
<b>CZ</b>	Determined by the treating doctor, if serious health harm (specified approximately along the types by the law) occurs. Police records.
<b>DE</b>	Hospitalised for at least 24 hours. Police records.
<b>DK</b>	All injuries except "slight". Police records.
<b>EE</b>	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.
<b>ES</b>	Hospitalised for at least 24 hours. Police records.
<b>FI</b>	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.
<b>FR</b>	"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. Since 2017, we've stop using hospitalised injuries from police data due to a reduction in relevance."
<b>EL</b>	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.
<b>HR</b>	"ICD-International Classification of Diseases- used by medical staff exclusively, after admission to the hospital"
<b>HU</b>	Serious injuries include injuries, fractures, bruises, internal injuries, severe cuts and destruction, general shock requiring medical treatment, or any injury requiring hospital care, which usually heals beyond 8 days.
<b>IE</b>	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, severe general shock requiring medical treatment.
<b>IT</b>	Separate statistics on serious and slightly injuries are not available in the road accidents dataset. Despite that, Italy calculated the number of seriously injured according to EU recommendations (MAIS 3+) and using data based on hospitals discharge records.
<b>LU</b>	Hospitalised for at least 24 hours as in-patient. Police records.
<b>LV</b>	From 2004: hospitalised more than 24 hours as in-patient. Police records.
<b>LT</b>	Seriously injured person loses more than 30 % of his/her working capacity or/and his or her body is being incurably mutilated.
<b>MT</b>	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.
<b>NL</b>	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 improved matching window for date/time of crash and date/time of hospitalisation, 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 <a href="https://www.swov.nl/en/facts-figures/factsheet/serious-road-injuries-netherlands">https://www.swov.nl/en/facts-figures/factsheet/serious-road-injuries-netherlands</a> "
<b>PL</b>	"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."
<b>PT</b>	Hospitalised for at least 24 hours. Police records.
<b>RO</b>	From 2021 we use MAIS3+ with conversion approved by DG-MOVE because RO Hospitals used ICD 10 Australian version.
<b>SE</b>	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 % since 2020). Hospital records.

<b>SI</b>	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.
<b>SK</b>	"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."
<b>UK</b>	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.
<b>CH</b>	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
<b>IL</b>	"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."
<b>NO</b>	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.
<b>RS</b>	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.

**Table 7. Countries' progress in collecting data on seriously injured based on MAIS3+**

<b>AT</b>	"The KFV carried out a feasibility study on MAIS3+ assessment on behalf of the (then) Austrian Transport Ministry (bmvit) in 2014 and 2015. The study covered two methods to estimate the number of serious road injuries: a) application of a (hospital data based) correction factor to the police reported number of serious injuries, and b) use hospital data alone to arrive at an estimate for serious injuries. The latter method was selected for further use. In late 2015, the number of MAIS3+ injuries was estimated for the first time for the year 2014 (using the AAAM conversion table) and has been continued for all years thereafter. Time series are now available starting 2010."
<b>BE</b>	MAIS3+ data is currently available for 2005-2021 and new data will be available every year. We are able to provide breakdowns according to age, road user type, gender, month, year, accident type. We use method one (correction factors applied to police data) and method two (use of hospital data) that are proposed by the European Commission.
<b>BG</b>	The only source is Police records.
<b>CY</b>	We have supplied to the Commission the data based on MAIS3+ for 2017 and 2018. For 2019, 2020, 2021 and 2022, it is unpredictable when the numbers will be calculated, because of restructuring of the competent section of the Ministry of Health.
<b>CZ</b>	Negotiations between the Ministry of Interior and the Ministry of Health under way, implementation of MAIS3+ maybe in 2023.
<b>DE</b>	An MAIS3+ injured persons estimation based on GIDAS data, data from the German Trauma Register and data from the official accident statistics is being calculated by Bast.
<b>DK</b>	No systematic linkage between police and hospital data. Denmark is working on a process to convert ICD diagnose codes into AIS and MAIS.
<b>EE</b>	ICD-10 diagnose info exists, technologically ready to link accident data with health registry data. Need to change legislation and due to that issue we can't start linking process. In 2019 we tried to test EU proposed ICD - AIS conversion tool. The result we got from the Health Information System was very doubtful. Further work depends on the initial data quality and convention tool (AAAM) updates. Legislative changes are drafted. We got MAIS3+ data, but there is a need to check if the data is reliable and methodology is fully correct.
<b>ES</b>	Data available from 2010. Since 2011 MAIS3+ is published in official reports. In a near future Spain will add MAIS3+ to the current definition of seriously injured.
<b>FI</b>	MAIS3+ (based on AAAM converter tool) is used in official data (from 2014 onwards). A pilot study was made in 2014 where the number of seriously injured MAIS3+ was 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. Number of serious injuries (MAIS3+) in road traffic were estimated for the years 2010-2011.
<b>FR</b>	"Linking between police and health data is done in the Rhone county and then used by the Gustave Eiffel University to build an estimate comparing the structure of Rhone and national accident data. Using a similar but simpler method, a first estimate of the number of serious injuries (MAIS3+) is produced at the same time as the other accident statistics, while waiting for the definitive estimate by the Gustave Eiffel University."
<b>EL</b>	Hospitals do not systematically collect data on the injury severity of road casualties.
<b>HR</b>	Link between police and hospital is based on the law. Only ICD based number is available.
<b>HU</b>	The real possibility can only be the transformation of ICD codes to AIS ones thus Hungary started modification of the legislation in 19.12.2016. The current data architecture does not provide direct linkage between police and hospital data. The National Healthcare Services Center started to upgrade the information system but the required time for the development of the necessary IT systems is not known yet.
<b>IE</b>	Ireland has commenced a project to apply the EC algorithm to hospital data to produce MAIS3+ serious injury figures. This project aligns with action 172 of the Road Safety Strategy: Develop a method to identify and enumerate serious injuries using a medical definition, such as MAIS3+, and report on same as part of the dissemination of trend data, updates, and reporting on serious injuries. This project is expected to be completed by Q3 2023. Ireland has reported serious injuries in MAIS3+ format for the time period 2014-2020.
<b>IT</b>	The current data architecture does not provide direct linkage between police and hospital data. MAIS3+ has been adopted for coding the level of injury and calculated on the basis of data sources such as the hospital discharge register. An estimate of the number of seriously injured has been calculated since year 2012 according to the conversion tables made available by EC.
<b>LU</b>	MAIS3+ will be used in the near future.
<b>LV</b>	Waiting for confirmation from people directly involved. The indirect information is that injuries are registered (or are ready to be registered) according to MAIS3+. Will inform when will receive the information.
<b>LT</b>	MAIS3+ data already available since 2014, but not all accident fields (MAIS3+) are filled - missing information.
<b>MT</b>	MAIS3+ conversion process from ICD to MAIS3+ is still ongoing. Progress stalled due to a low rate of positive matches in converting data using conversion tables provided by the EC. The EC has recently communicated that AAAM have been contracted in 2022 to provide support to MS for this conversion. As Malta has encountered difficulties on MAIS3+ conversion, this support is welcomed. We aim to resume conversion of MAIS3+ data this year in collaboration with the Ministry of Health.
<b>NL</b>	Data on MAIS3+ already available 1993-2018; at the moment, no further disaggregates of this data are available
<b>PL</b>	The work is coordinated by the National Road Safety Council, National Institute of Public Health and Motor Transport Institute. Poland transfer data from 2013 and 2014 according to the recommendations of the CARE group (DG MOVE). In recent years, work on MAIS 3+ in Poland has been stopped. The method proposed by DG MOVE (conversion of ICD-10 scale on the MAIS 3+ scale) in our opinion has errors and leads to incorrect results. Unfortunately, due to a lack of financing, Poland could not launch a national project to develop a methodology for assessing the severity of injuries of road accident victims according to the MAIS 3+ scale.

<b>PT</b>	"A methodology was developed in 2015 to estimate the number of MAIS3+ serious injuries, using the national hospital discharge database. The Health Ministry applies the EC's AAAM converter to the ICD9-CM codes to calculate the MAIS score. This method is being improved, as Health Ministry is currently using ICD-10-CM/PCS injury codes, since mid-2016. Also, recommendations from SafetyCube D7.1, on external causes codes for road accident victims are being analysed. Under the new Road Safety Strategy (2017-2020), a new working group will establish a procedure to collect in the police data the required information while preserving the victim's privacy. A protocol for agreed procedure implementation is being prepared for signature by relevant parties."
<b>RO</b>	From 2021 we use MAIS3+ with conversion approved by DG-MOVE because RO Hospitals used ICD 10 Australian version.
<b>SE</b>	Data already available since 2007.
<b>SI</b>	We have made experimental linking between police and hospital data. MAIS3+ data are incomplete and not ready for publication and still under discussion.
<b>SK</b>	Under discussion.
<b>UK</b>	MAIS 3+ serious injuries is done on an ad hoc basis, and is therefore not published regularly. Figures to 2019 are now published, table RAS4101: <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1106331/ras4101.ods">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1106331/ras4101.ods</a>
<b>CH</b>	Linking of health and police data has started in 2014. This allows to code the recommended maximum AIS score based on ICD-10.
<b>IL</b>	Since 2013 police data is linked with hospital data. Any casualty found in both sources, their injury severity is defined by MAIS. If the casualty was not found in the hospital data, their injury severity is 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.
<b>NO</b>	Under consideration.
<b>RS</b>	Road traffic safety agency has begun activities to introduce the MAIS 3+ scale to record serious injuries. During 2017, an analysis of the possibilities for the most efficient introduction of the MAIS 3+ scale was performed. Road Traffic Safety Agency intends to continue activities on introduction MAIS3+ definition of serious injuries in road traffic accidents in the next period.

Cover image:

The map shows the relative change in road deaths between 2012 and 2022.



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