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Special report

Reaching EU road safety objectives

Time to move up a gear

CURIA RATIONUM

EUROPEAN COURT OF AUDITORS

Contents

Executive summary

I Road safety is a major societal issue. In 2022, 20 640 people were killed in road accidents in the EU, with pedestrians, cyclists and motorcyclists particularly at risk. Road safety is a shared competence of the EU and its member states, although responsibility for fully implementing some actions that could directly improve road safety lies with the national authorities. The Commission's role is to coordinate activities at EU level, especially when they have a cross-border effect.

II In 2018, the EU set the current objectives of halving road fatalities and serious injuries by 2030 compared to 2019, and getting close to zero by 2050. To achieve these objectives, the Commission based its road safety policy on the EU Safe System approach, which includes several pillars to ensure that if one element fails, another will compensate. For the preceding 2014-2020 period we estimated that the EU funding through the European Regional and Development Fund, the Cohesion Fund, and the Connecting Europe Facility for projects that contributed to road safety stood at around € 6.6 billion.

III With the midway-point of the current 2021-2030 policy framework approaching, we assessed whether the Commission had been effective at setting up the EU Safe System approach and supporting member states in achieving the 2030 and 2050 road safety objectives. Under the governance pillar of the Safe System approach, we examined whether the approach was comprehensive and whether the Commission was effectively monitoring member states' contributions to the EU objectives. We also assessed whether the Commission had taken appropriate actions under the road use, vehicles, and infrastructure pillars. Lastly, under the financial support pillar, we examined whether the selection of EU co-funded projects financed in the 2014-2020 period and the design of indicators focused on road safety objectives. We carried out our audit in four member states, and examined a sample of 13 projects.

IV Overall, we conclude that the Commission has set up a comprehensive EU Safe System approach, with ambitious objectives for 2030 and 2050. However, we identified shortcomings in its actions. Moreover, at the current rate of progress, and without additional efforts from the EU and member states, these objectives are unlikely to be reached.

V As far as the **governance pillar** is concerned, we found that the Commission had not yet carried out an assessment of the extent to which the member states' planned efforts help to achieve EU road safety objectives. While almost all member states set

objectives for halving fatalities and serious injuries, the level of sophistication of the national strategies differed. Moreover, further steps are needed to make the monitoring of member states' performance effective. We also found comparability issues in how the member states collected and reported data to the Commission about serious injuries.

VI We also found that the **road use pillar** did not cover all of the main risk areas to the same extent at EU level, and that the Commission's role in overseeing national enforcement approaches was limited. Although the **vehicle pillar** was covered by a standardised framework at EU level applicable to new vehicles, its impact was limited by the fact that member states' car fleets are ageing. Member states' procedures under the **infrastructure pillar**, including those for identifying dangerous sections and causes of accidents, varied in their degree of sophistication. The EU legislation in this field introduced common principles and procedures, but its scope did not cover infrastructure associated with most fatalities, such as urban areas, non-primary roads outside urban areas, and cycle paths. Lastly, we found that new road safety challenges (such as personal mobility devices and autonomous vehicles) will require further integration of the Commission's actions under these three pillars.

VII Under the **financial support pillar**, we found that in the 2014-2020 period road safety was not a key criterion when selecting projects with road safety objectives, as it competed with other priorities (such as increased accessibility and greener transport). For most audited projects, the selection criteria did not target the network sections with the highest number of accidents or fatalities, and no road safety design criteria were stipulated. Furthermore, EU co-funded projects were not required to estimate their potential contribution to road safety or set related outcome indicators. For the 2021-2027 period, cohesion policy funding for future projects aimed at improving road safety may decrease, unless strong prioritisation rules are set to target this objective.

VIII Based on these conclusions, we recommend that the Commission should:

(1) improve reporting on serious injuries and set performance targets;

(2) increase the focus on the causes of accidents and introduce further guidance covering all risk areas;

(3) envisage clearer prioritisation and an *ex post* assessment for EU co-funded projects with road safety objectives.

Introduction

Road safety is a major societal issue

Road accidents are a frequent cause of premature death in the EU

01 In the EU, road accidents are a frequent cause of premature death: in 2022, 20 640 people were killed in road accidents[1]. Moreover, it is estimated that for every life lost in the EU, five more people suffer serious injuries with life-changing consequences[2].

02 In absolute numbers, road transport has the highest cost in terms of human life when compared with other modes of transport. In 2016 to 2020, road fatalities in the EU, excluding the United Kingdom, averaged 22 420 per year compared with 19 rail passenger fatalities. The most recent fatal air accident involving an EU carrier occurred in 2016, when two lives were lost.

03 On a global level, based on the most recent World Health Organization data, Europe compares positively to other regions: it has the lowest rate of fatalities and, unlike in other regions, this rate is going down. However, while EU road fatalities have fallen substantially since 2000, the reduction trend has stagnated in recent years.

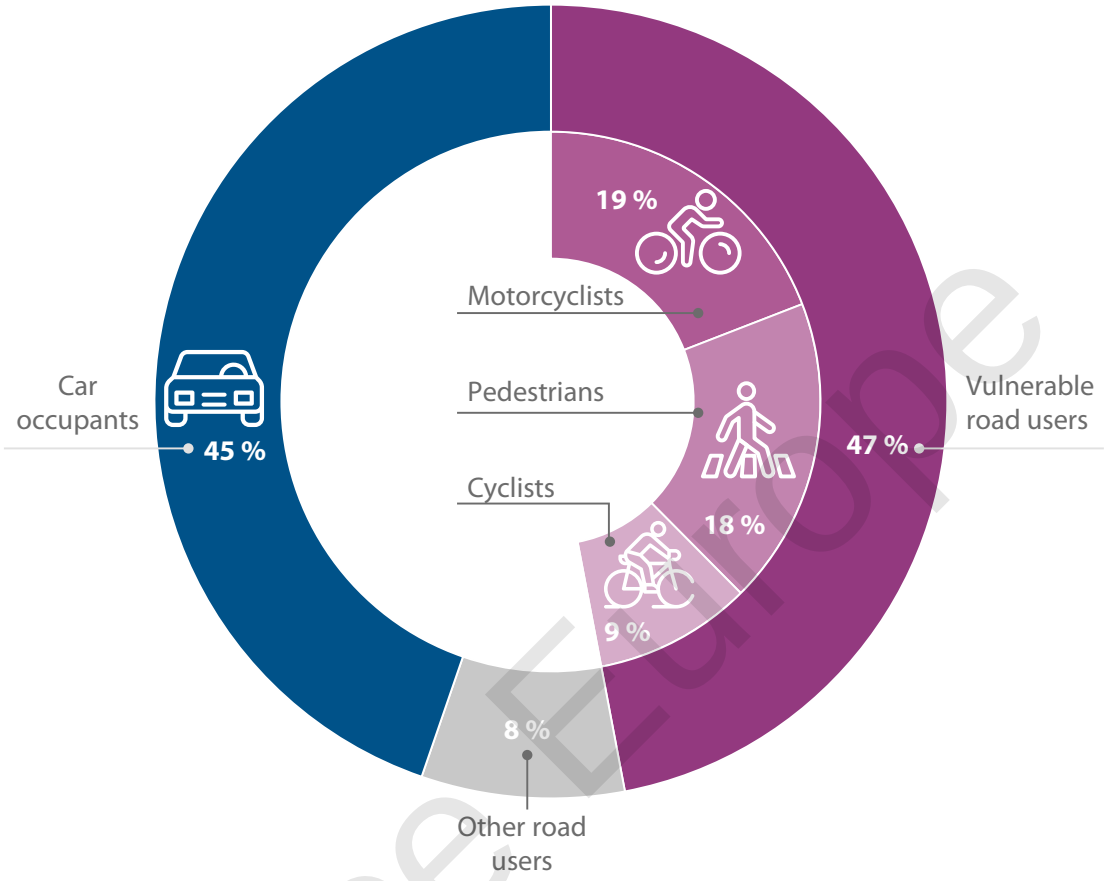
Vulnerable road users are more at risk of a fatal accident, and significant differences exist between age groups and member states

04 Any road user can be involved in a fatal crash, but vulnerable users (i.e. pedestrians, cyclists and motorcyclists) are especially at risk. When looking at the EU's road fatalities in 2021, the highest proportion involved vulnerable users (47 %), followed by car occupants (45 %) (see ***Figure 1***). In addition, vulnerable users account for almost 70 % of fatalities in urban areas.

[1] Road Safety in the EU, European Commission, 2023.

[2] Serious injuries, European Commission, 2021.

Figure 1 – EU road fatalities by road user (2021)



Note: Figures do not add up due to rounding.

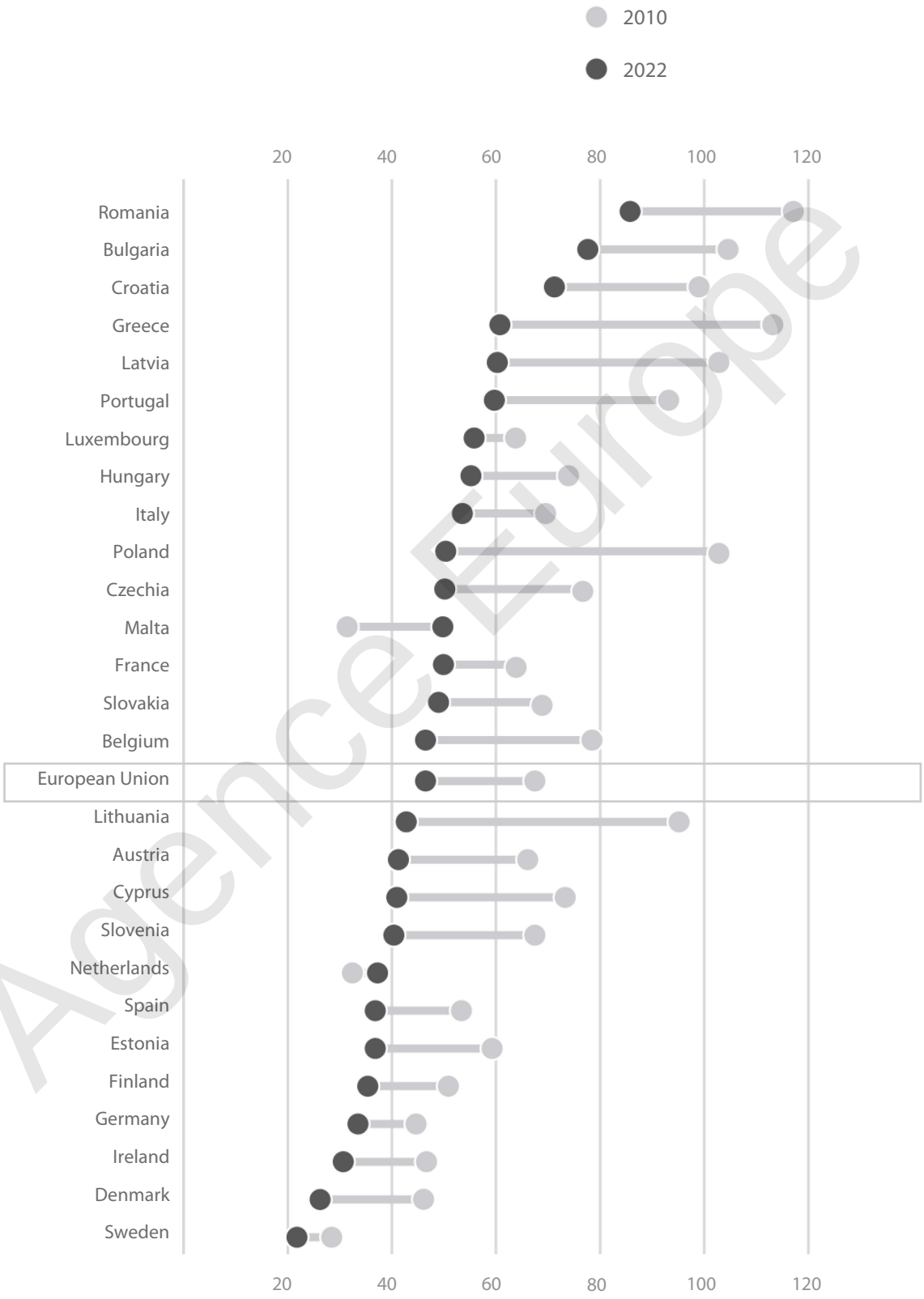
Source: ECA, based on the Community database on road accidents (CARE).

05 Young people (aged 18 to 24) have the highest fatality rate, followed by those aged 65 and over. While fatalities among young road users are mainly linked to car occupants (64 % in 2019), half of the fatalities for people aged 65 and over were cyclists or pedestrians[3].

06 In 2022, the EU average fatality rate from road accidents was 46 deaths per million inhabitants, with considerable variation between member states (see ***Figure 2***). Sweden and Denmark had the lowest fatality rate with 22 and 26 deaths per million inhabitants, respectively. The highest fatality rate was in Romania, with 86 road deaths per million inhabitants.

[3] Young people, European Commission, 2021 and Seniors, European Commission, 2023.

Figure 2 – Fatalities per million inhabitants among member states (2022 v 2010)



Note: The values for the European Union do not include the United Kingdom.

Source: ECA based on CARE.

The Safe System approach is a global concept

07 Road safety competes with other objectives, such as mobility, and is also influenced by a large number of factors and players. The four main causes of road fatalities have been identified as (1) speeding; (2) driving under the influence of alcohol; (3) not wearing a seatbelt; and (4) driver distraction[4]. Public authorities, industry and civil society can all address the causes of accidents by implementing different actions.

08 The Safe System approach was originally developed in Sweden and the Netherlands in the 1990s[5]. It is based on acknowledging that people make mistakes, and proposes ways to ensure that such mistakes do not result in fatalities or serious injuries. This preventive strategy creates layers of protection to ensure that if one element fails, another will compensate.

09 The United Nations (UN) first included the approach in its road safety strategy in 2011. In August 2020, the UN launched a Second Decade of Action for Road Safety, setting a target for reducing road traffic deaths and injuries by at least 50 % between 2021 and 2030. ***Annex I*** provides examples of actions that contribute to road safety under this approach. Road safety initiatives contribute to UN Sustainable Development Goals (SDG) 3 "Good health and well-being" and 11 "Sustainable cities and communities".

Roles and responsibilities in the EU

10 **Member states** decide on their national transport policies and on many aspects of road traffic and safety provisions. They are also responsible for transposing EU directives and implementing EU regulations, including those relating to road safety. In addition, they have full responsibility for implementing some of the actions that have a direct effect on reducing fatalities and serious injuries. Moreover, member states decide on priority infrastructure projects, which they fund primarily from national or regional budgets.

[4] European Transport Safety Council, *Progress in reducing drink-driving and other alcohol-related road deaths in Europe*, 2022.

[5] ITF - OECD, *The Safe System Approach in Action*, 2022.

11 In 1992, the member states agreed to establish an EU-wide transport infrastructure network. They also assigned the EU shared competence in setting out measures to improve transport safety. The **Commission**, and particularly its Directorate-General for Mobility and Transport (DG MOVE), is responsible for designing, implementing and enforcing transport policy at EU level. Other Commission Directorates-General, for example the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), as well as the European Climate, Infrastructure and Environment Executive Agency (CINEA), are also responsible for key actions that contribute to the EU's road safety policy.

12 The **behaviour of individuals and companies** is a key factor contributing to a safe road-transport environment, as they choose the form of mobility and the safety features of vehicles, and are responsible for how they behave in traffic. The **insurance industry** is a major player, as it designs its products and services around safety considerations (e.g. "pay how you drive" policies), promotes new technologies, encourages users to drive safely, and collects data with a view to understanding the causes of road traffic accidents better.

The EU policy and regulatory framework for road safety

13 In 2018, the Commission based its road safety policy for the 2021-2030 period on the **EU Safe System approach**, which comprises eight pillars (see ***Figure 3***). The Commission also set the current objectives of halving fatalities and serious injuries between 2020 and 2030, and getting both close to zero by 2050. The European Parliament and the Council also endorsed these objectives. This policy builds on previous initiatives launched by the Commission (see ***Annex II***).

Figure 3 – The EU Safe System approach

Source: ECA based on the Commission communication "Europe on the Move". The elements in blue are those included in the audit scope.

14 The EU's regulatory framework for the Safe System approach combines binding legal acts and recommendations to member states (see ***Annex III***).

EU funding for projects contributing to road safety

15 In the 2014-2020 period, the EU mainly used three instruments to finance national and regional transport infrastructure projects contributing to road safety:

- the **European Regional Development Fund (ERDF)** and the **Cohesion Fund (CF)**, where management is shared between the Commission and the member states. The Commission's Directorate-General for Regional and Urban Policy (DG REGIO) approves multiannual programmes, including funding priorities designed by member states, and monitors implementation. National or regional managing authorities are responsible for selecting and implementing specific projects co-funded by the ERDF and the CF;

- the **Connecting Europe Facility (CEF)**, which is managed directly by the Commission (DG MOVE). The Commission delegated responsibility for awarding grants and monitoring implementation to the CINEA.

These three instruments remain as a source of funding for the 2021-2027 period. In addition, in the current period the Recovery and Resilience Facility can support projects contributing to road safety.

16 As national project promoters and authorities were not required to specifically identify the EU co-funded projects that contributed to road safety in the 2014-2020 period, there is no overview at EU level of the total amount of funding contributing to road safety. For the purpose of the audit, we, therefore, estimated the relevant amount of EU funding provided under the ERDF, the CF and the CEF over the period for projects that contributed to road safety. As at February 2023, the amount committed was € 6 663 million (CEF € 1 477 million; ERDF and CF € 5 186 million).

Audit scope and approach

17 This report assesses whether the Commission has been effective at setting up the EU Safe System approach (see ***Figure 3***) and supporting member states in achieving the objectives of halving fatalities and serious injuries between 2020 and 2030, and getting both close to zero by 2050. To this end, we examined whether:

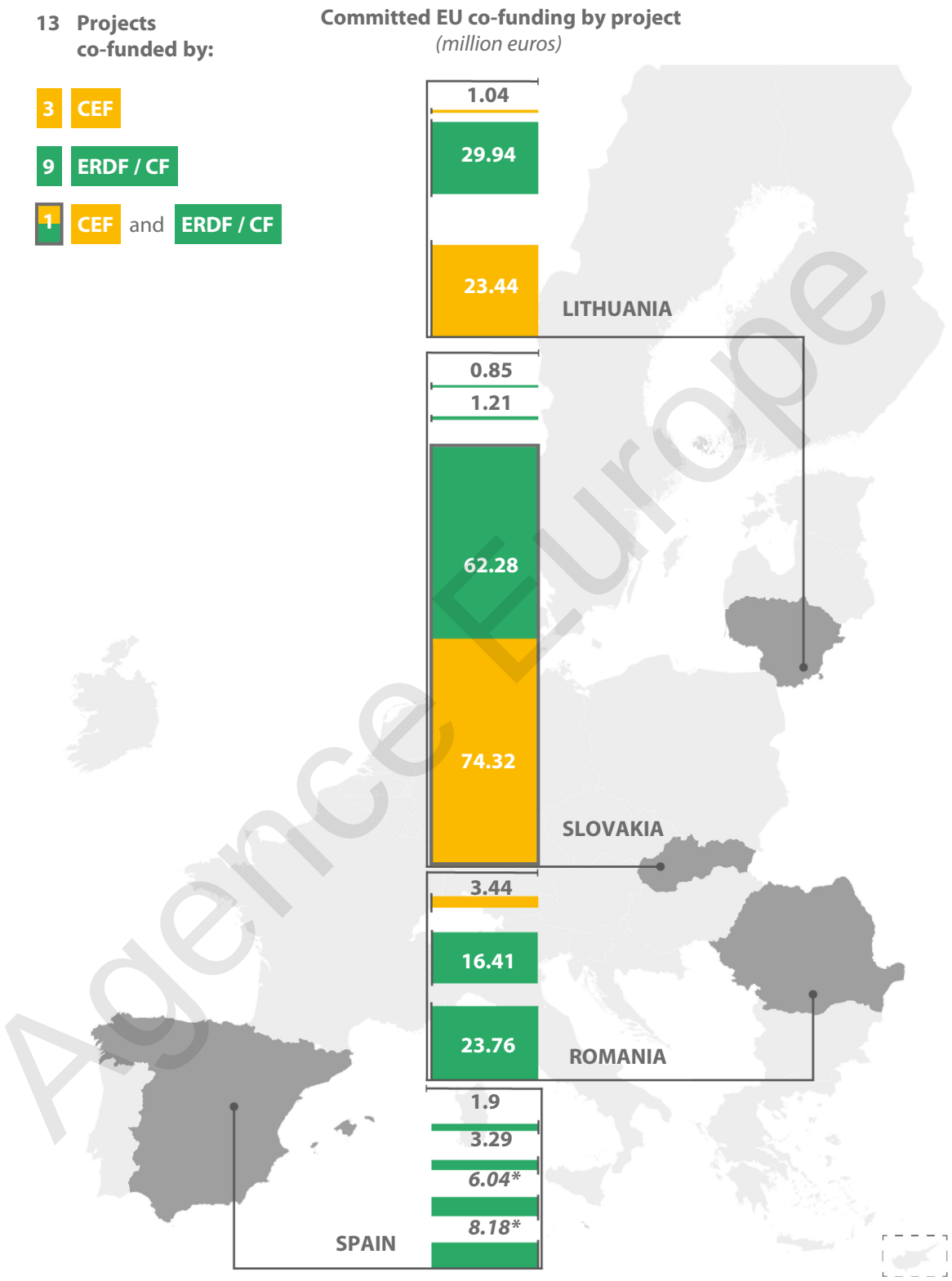
- the Commission has designed a comprehensive Safe System approach and effectively monitored how the member states' road safety measures helped to achieve EU policy objectives;
- the Commission has taken appropriate underlying actions for the road use, vehicle and infrastructure pillars of the EU Safe System approach;
- the selection of EU co-funded infrastructure projects in the 2014-2020 programming period and the design of indicators appropriately focused on EU road safety objectives.

18 We examined evidence from a range of sources:

- we analysed the EU's road safety strategy documents, the relevant legislative and policy documents, and reports published by research bodies, industry associations and academia;
- we interviewed staff from relevant Commission Directorates-General, the CINEA, and representatives of national bodies;
- we met stakeholder associations at European and national level, as well as staff from the UN Economic Commission for Europe and the UN Road Safety Fund;
- for a sample of four member states (Spain, Lithuania, Romania and Slovakia) we analysed the national road safety strategies and relevant legislative and policy documents; and
- we organised on-the-spot visits to the four member states above, where we examined a sample of 13 road safety infrastructure projects that were financed under the EU budget in the 2014-2020 period (see ***Annex IV***). All the selected projects mentioned road safety among their objectives.

19 ***Figure 4*** provides an overview of the member states and the projects that we audited.

Figure 4 – Member states and projects selected for the audit



Note: * The project was cancelled after selection.

Source: ECA.

20 We selected member states based on the amount of the ERDF, CF and CEF funding allocated to projects contributing to road safety, and included member states with varied performance levels and trends in terms of the number of road fatalities.

21 Our sample of projects includes infrastructure projects with different types of contribution to road safety (e.g. new or upgraded motorways, and infrastructure for cyclists or pedestrians). We selected nine ERDF-CF projects, three CEF projects and one project receiving financial support from both the CEF and the CF. Taken together, the total committed EU funding for these projects is € 242 million.

22 Our audit covers the road safety framework for the period since the Commission adopted its Roadmap to a Single European Transport Area in 2011 and focuses on investments supported by the EU during the 2014-2020 period. The audit fieldwork was completed in September 2023.

23 We decided to carry out this audit not only because road safety is a major societal issue, but also because progress on reducing road fatalities in the EU has stagnated in recent years. This report aims to contribute to discussions on future proposals for policy initiatives and legislative acts as the midway point of the current 2021-2030 EU road safety policy framework approaches.

Observations

The EU Safe System approach is comprehensive, but the Commission faces challenges in monitoring member states' progress

24 To be effective, an EU road safety strategy should set realistic objectives consistent with interlinked policies at EU and international level[6]. The strategy should cover actions across the various policy areas, and estimate the resources required[7]. Furthermore, national road safety strategies should be aligned with overarching EU objectives. Lastly, there should be a reliable monitoring system based on relevant indicators to track progress towards EU road safety objectives[8].

25 We therefore examined the EU Safe System approach and the road safety objectives set at EU level. We also assessed the Commission's overview of the member states' contribution and progress towards such objectives. Lastly, we looked at the current rate of progress against the objectives set.

The EU Safe System approach is comprehensive, and sets ambitious objectives

26 In 2018, the Commission adopted the EU Safe System approach for road safety. It follows a similar approach and structure as the one developed by the UN (see paragraph ***09***). However, there are also some differences. In particular, we noted that while the EU Safe System approach placed greater emphasis on technological developments such as intelligent transport systems or autonomous vehicles, it did not directly cover aspects of multimodal transport and land-use planning. ***Figure 5*** compares the two Safe System approaches.

[6] Better Regulation Toolbox # 15, 18, 19, European Commission, 2021.

[7] Recommendations on "Vision zero", European Parliament, 2021.

[8] Council conclusions on road safety, 2017.

Figure 5 – Comparison between the EU and the UN Safe System approaches

Source: ECA.

27 Over time, the Commission has raised its ambition with regards to road safety (see ***Annex II***). When adopting its Safe System approach in 2018, the Commission added a reduction in serious injuries to its previous objectives. It also set the current objectives of halving fatalities and serious injuries between 2020 and 2030, and getting both close to zero by 2050 (see paragraph ***13***).

The Commission has not yet carried out an assessment of national strategies' contributions in achieving the EU objectives

28 The EU's road safety objectives can only be achieved if member states put in place policies and investment programmes that are conducive to those objectives. The national strategies of the vast majority of the 27 member states, including all four of the member states we visited, set objectives for halving fatalities and serious injuries. However, member states have used different baseline years to calculate progress at national level (see ***Annex V***).

29 The Commission has not yet carried out an assessment of how much national road safety strategies contribute to meeting the EU objectives. We found that the national strategies of the four member states we visited did not share a common structure or level of detail, which makes them difficult not only to compare but also to assess in terms of their appropriateness for reaching the EU objectives. Furthermore, although all four visited member states developed a follow-up action plan, not all of them have an estimate of the overall funding needed to achieve their national objectives; this aspect will hinder the Commission's efforts to obtain an overview at EU level (see ***Table 1***).

Table 1 – Analysis of national strategies for the member states we visited

Member state	Definition of objectives beyond fatalities and serious injuries	Identification of overall funding needs	Follow-up action plan
Spain	Yes (by mode of transport, age and vulnerable users)	No	Yes
Lithuania	Yes (on reducing hotspots, safe vehicles, and the agency recommendation implementation rate)	Yes	Yes
Romania	Yes (on reducing hotspots)	No	Yes
Slovakia	No	No	Yes

Source: ECA, 2023.

30 Moreover, we found that no European Semester country-specific recommendations have been issued in relation to road safety. In a few cases, the Commission commented on road safety issues in the country reports, which were prepared as part of the process. For example, comments focused on the need for further road safety action for cyclists in Belgium (2023), and the need to invest in safer infrastructure in Lithuania (2019) and Romania (2020). However, we found no evidence of consistent monitoring of member states' actions in terms of road safety.

31 Meanwhile, to help member states to contribute further to the EU objectives, the Commission set up initiatives to disseminate good practices.

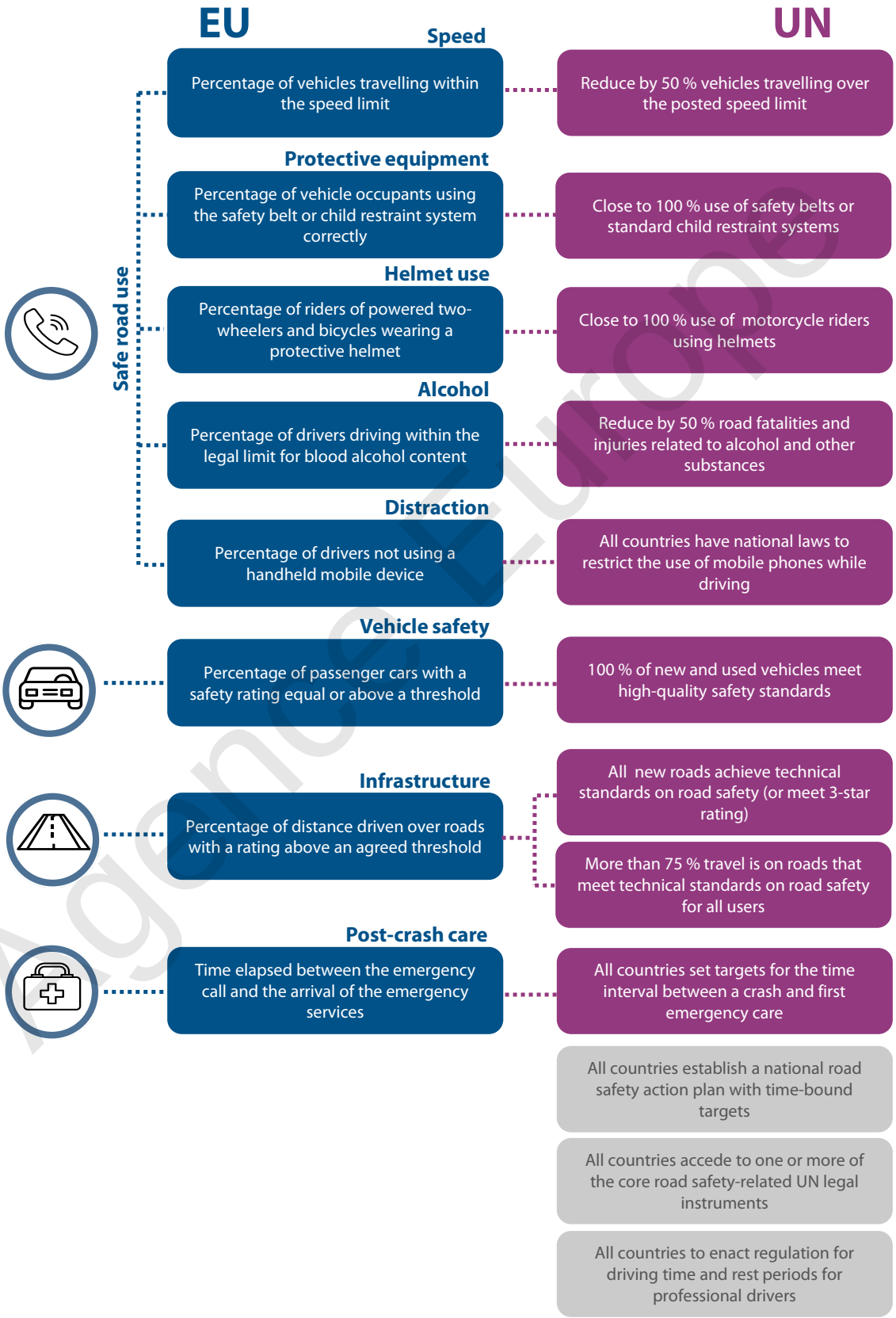
- Since 2019, the EU road safety exchange programme has twinned member states that faced greater road safety challenges with better-performing member states. The programme included study visits and thematic workshops and provided recommended courses of action. The initial three-year pilot project focused on six member states with greater challenges, while the second edition of the programme involves 19 member states.

- The European Road Safety Observatory (ERSO) provides data on road traffic accidents, and publishes country and thematic reports on relevant practices and policies in the EU. The Commission recently tasked the Observatory with a new role of monitoring the implementation of national and EU road safety strategies. The results of this exercise will feed into an implementation report on the EU's road safety strategy, which is due in 2025.

Monitoring of member states' performance is not yet effective

32 In 2019, the Commission established a set of eight key performance indicators (KPIs) for road safety (see ***Figure 6***). These KPIs focus on factors that contribute to reaching the EU's road safety objectives, i.e. road user behaviour, vehicle safety, quality of road infrastructure, and emergency response care. The KPIs share some similarities with a set of voluntary global safety performance targets that the UN identified in 2017 to help member states focus their road safety actions. The Commission identified the need for better data to set targets for the KPIs in its 2018 communication. While certain member states have specified targets for a set of KPIs, no such targets have yet been established at EU level.

Figure 6 – Comparison between EU key performance indicators and UN voluntary performance targets



Source: ECA, based on Commission and UN documents.

33 In 2020, the Commission launched the "Baseline" project, under which it provided funding for member states to collect data for these KPIs. Eighteen member states participated in the project, which lasted until 2022. While the project represents significant progress, we consider that it fell short in terms of achieving sufficient comparability between member states and preparing the grounds for potential targets. The fact is that participation in the project was voluntary and not all member states collected the same data for KPIs. Moreover, member states deviated from the standard methodology to calculate indicators, thus hampering comparability[9].

34 In 2022, as a follow-up to the "Baseline" project, the Commission launched the current "Trendline" project, with a view to setting national targets for all the collected KPIs (see paragraph ***32***). The project identified 10 additional experimental indicators to be tested on a limited scale. Although participation is much higher than in the past (25 member states will collect KPIs, and two will be observers), the project set-up still allows member states to differ in the set of indicators collected and deviate from the standard methodology. On this basis, the setting and monitoring of aggregated EU level targets on performance indicators may be difficult because the data is not yet sufficiently comparable.

Member states' data on serious injuries is not yet comparable, while data on fatalities is

35 Member states have had to collect road safety statistics on fatalities and injuries and send this data to the Commission since 1993 (see ***Box 1***).

[9] Baseline project, Conclusions and recommendations, 2023.

Box 1

The Commission's CARE database

In 1993, the Council created the CARE database on road accidents, requiring member states to report information annually. As the decision did not specify exactly which data should be reported, an expert group, including member state representatives and the Commission (DG MOVE and Eurostat), meets regularly to discuss which variables to collect and disseminate, and in which format. The database includes data for each accident involving fatalities or injuries, such as the type and location of the accident, details about road infrastructure, and information on the vehicles involved and the road users affected.

Every autumn, the Commission publishes statistics at EU and member state level. Individual datapoints are not publicly accessible, but are made available to researchers on request for analysis purposes.

36 Despite the longstanding legal requirement, data comparability issues remain. This is particularly true for data on injuries, where every member state adopts its own set of national criteria to determine the degree of severity. Most member states require the police that respond to an accident to classify an injury as "serious", while in others the classification is made by hospitals. ***Table 2*** illustrates the different criteria for identifying serious injuries that were used at the time of the audit in the four member states we visited.

Table 2 – Criteria for identifying an injury as serious in the four member states we visited

Member state	Criteria for classifying an injury as serious
Spain	Injured persons hospitalised for at least 24 hours or classified by the hospital
Lithuania	Injured persons required hospitalisation, and the hospital recorded their injuries as a "severe health impairment"
Romania	Injury is classified by the hospital
Slovakia	The type of injury is included on a legally established list of injuries

Source: ECA.

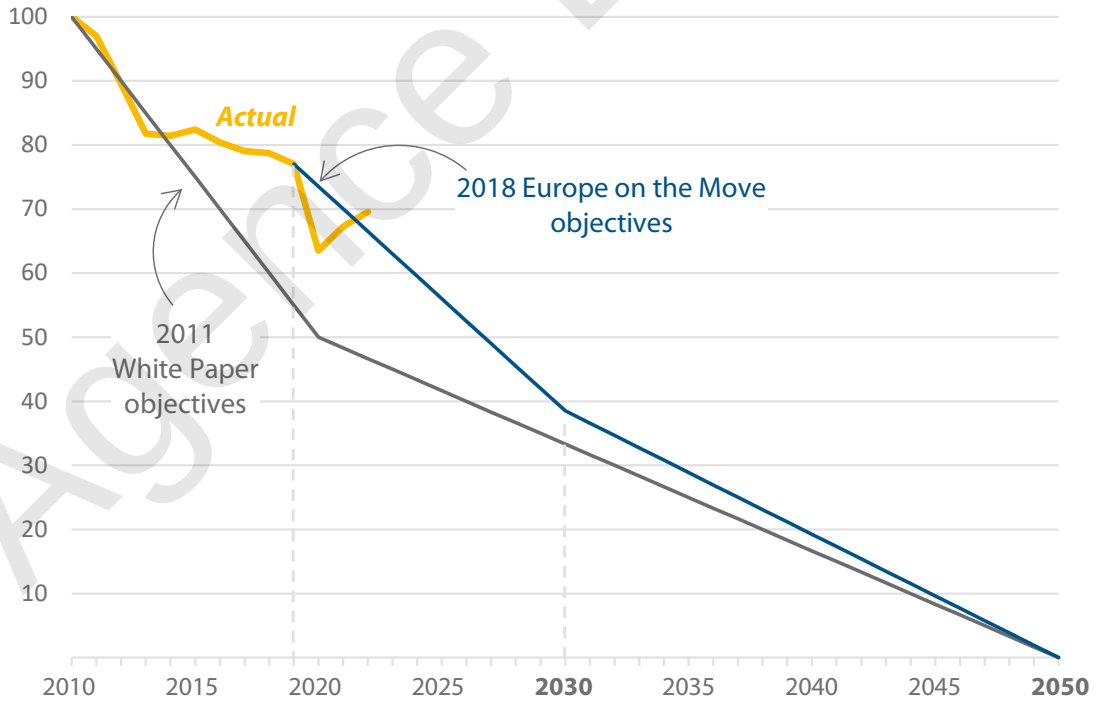
37 To improve comparability, EU transport ministers agreed in 2017 to continue working towards using a common injury definition based on the MAIS3+ trauma scale. This is an international classification system which is based on hospital records.

By 2023, only 19 member states were collecting data using the MAIS3+ classification. Moreover, the methods used to obtain MAIS3+ estimates were not standardised across member states. The Commission examined the trends for those countries that collected data under both methodologies and found that national methodologies either under- or over-reported serious injuries compared to the harmonised methodology[10]. This means that the Commission is unable to obtain an accurate overview of serious injuries at EU level and design well-targeted actions to reduce their number.

EU progress is too slow to reach the 2030 and 2050 objectives

38 Between 2010 and 2020, the number of EU road-related fatalities decreased by 36 %, i.e. significatively short of the 50 % objective set by the Commission in its 2011 White Paper. In 2022, road fatalities actually increased by 4 % compared to the previous year (see ***Figure 7***).

Figure 7 – Percentage decrease in EU road fatalities since 2010 when compared to the objectives set for 2020, 2030 and 2050



Note: The drop in road fatalities in 2020 is mainly attributable to the effects of COVID-19 on road traffic.

Source: ECA, based on Commission data.

[10] *Serious injuries*, European Commission, 2023.

39 At its current rate, and without additional efforts, the EU and member states are unlikely to meet the 2030 intermediate objective, thus casting doubt on the ability to achieve the 2050 objective. The number of fatalities would drop only by a quarter as opposed to a half by 2030 (compared to 2019 values, which is the baseline chosen by the Commission to measure progress). To meet the intermediate objective, an EU average annual fatalities reduction rate of 4.6 % would be required. By contrast, the average yearly reduction observed over the last five years was only 2.5 %.

40 The objective for serious injuries also appears to be hard to achieve. An analysis[11] carried out in the Netherlands concluded that the 2030 road fatalities objective could be achieved by using a specific combination of measures targeting speed limits for vehicles in urban areas and safe cycling infrastructure. However, the target for serious injuries would still be out of reach, even in the best-case scenario.

41 Meeting these objectives may become more difficult as it becomes increasingly hard to achieve significant improvements from what is an already good performance level. For example, between 2010 and 2022 the best performing member state in terms of reducing fatalities was Lithuania (- 60 %), the country with the seventh-highest fatality rate in 2010, while fatalities in the Netherlands, the country with the third-lowest fatality rate in 2010, actually increased by 22 %.

EU actions under the road use, vehicle and infrastructure pillars do not cover all risk areas, and are insufficiently integrated

42 Under the Safe System approach, each pillar should include measures to cover all relevant risk areas (e.g. legislation or recommendations on traffic offences and enforcement, vehicle safety features, and quality requirements for infrastructure, including for walking and cycling). Moreover, in order to contribute effectively to road safety, measures across different pillars should be integrated and complement each other.

43 We therefore examined the Commission's Safe System approach pillars concerning road use, vehicles and infrastructure to assess two elements that are key to achieving the 2030 and 2050 road safety objectives: the appropriateness of their underlying actions, and the degree of integration between the different pillars.

[11] Dr. S. de Craen et al, Halve road casualties in 2030? Calculation of additional measures, Ministry of Infrastructure and Water Management, 2022.

Not all the main causes of accidents are covered at EU level, and the Commission's oversight of member states' enforcement strategies is limited

44 User behaviour is a key component of road safety, which is influenced among others factors by traffic regulation provisions and the degree of enforcement against traffic offenders in member states. Responsibility for designing and implementing both aspects lies fully with the member states.

45 We analysed the applicable legislation and enforcement strategies for two of the four main causes of road fatalities, i.e. alcohol consumption and speeding (the other two are failing to wear seatbelts and driver distraction; see paragraph ***07***).

46 In general, the risk of an accident occurring increases considerably when driving is impaired by alcohol consumption. A study carried out for the Commission concluded that alcohol-related fatalities could account for between 20 % and 28 % of all road fatalities in the EU. However, there is no harmonised EU methodology for classifying a road fatality as alcohol-related, and the member states that report this data do so on the basis of their own national methodologies[12].

47 Research has proven that a lower blood alcohol content limit is associated with fewer alcohol-related road fatalities[13]. In 2001, the Commission recommended that member states should adopt a maximum legal limit for blood alcohol content of 0.5 mg/ml for all drivers, and a lower threshold of 0.2 mg/ml for specific categories of road user (such as inexperienced drivers or drivers of large vehicles). However, as of October 2023, the Commission has not issued any recommendation on legal thresholds for other substances.

48 All member states with the exception of Malta have adopted legislation setting maximum limits for blood alcohol content which are in line with the Commission's recommendation. Four of the 27 member states have even adopted a zero-tolerance level for all drivers[14].

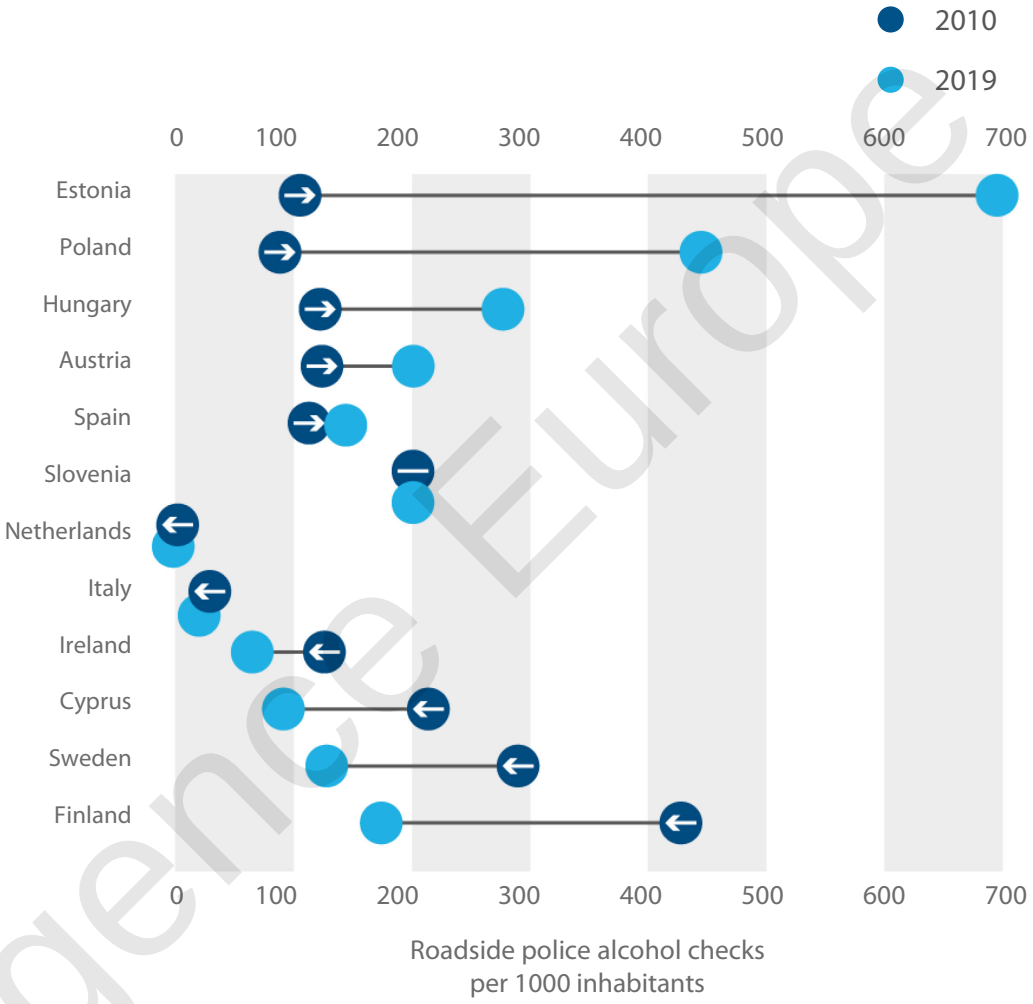
[12] Ecorys, *Prevention of drink-driving by the use of alcohol interlock devices*, 2014.

[13] Ecorys and ITS, *Prevention of driving under the influence of alcohol and drugs*, 2021.

[14] Commission's 2022 Statistical pocketbook.

49 Based on the latest study[15], in 2019 only 12 member states provided statistics on their enforcement activities. When looking at the number of sobriety checks carried out by police per 1000 inhabitants, there were significant differences between countries (see ***Figure 8***).

Figure 8 – Change in roadside police sobriety checks (2019 v 2010)



Source: ECA, based on Ecorys study.

50 Speed is another significant factor in road traffic accidents, affecting both the risk of accidents occurring and their severity. Research estimates that 30 % of all fatal accidents are the direct result of excessive or inappropriate speed[16]. According to one

[15] Ecorys and ITS, *Prevention of driving under the influence of alcohol and drugs*, 2021.

[16] *Road safety thematic report - Speeding*, European Commission, 2021.

study, reducing average road speed by 1 km/h on all roads across the EU would save over 2 000 lives per year[17].

51 Moreover, the impact of speed in fatal accidents is particularly striking for accidents involving vulnerable users. While the probability of a pedestrian fatality in an accident involving a vehicle travelling at under 30 km/h is lower than 10 %, death is almost inevitable at speeds above 55 km/h[18].

52 In 2022, the Commission issued a communication to encourage member states to reduce traffic speeds, although the main purpose of this communication was to save energy. However, the Commission did not yet issue any recommendation to member states on safe speed limits, even though the European Parliament had called upon the Commission to do so in 2021.

53 Member states set speed limits for each section of their road networks. Most national speed limits are higher than the recommended ones in an international study[19]. This is especially true of built-up areas where there is a mix of vulnerable road users and motor vehicle traffic, for which the recommended speed limit is 30-40 km/h (see ***Annex VI***).

54 Despite speed restrictions, in those member states that monitor speed compliance, a high percentage of vehicles have been observed travelling over the speed limit across all types of roads (35 % - 75 % of vehicles on urban roads, 9 % - 63 % on rural roads, and 23 % - 59 % on motorways). This is compounded by the fact that speed enforcement methods and levels differ greatly between member states. For example, according to the most recent study available[20], the proportion of offences detected by automatic speed cameras, which the Commission recommended as a tool for speed enforcement, ranged from 0 % in Romania to 99.9 % in Malta in 2017.

55 The Commission's role in overseeing national enforcement approaches is limited, as it is based on a Directive addressing only certain cross-border offences and on a

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[17] European Transport Safety Council, *Reducing speeding in Europe – PIN Flash Report 36*, 2019.

[18] Monash University Accident Research Centre, *Older vulnerable road users*, 2004.

[19] International Traffic Safety Data and Analysis Group (ITF – OECD), *Speed and crash risk*, 2018.

[20] European Transport Safety Council, *Reducing speeding in Europe – PIN Flash Report 36*, 2019.

non-binding 2004 recommendation. As required under the Cross-Border Enforcement Directive, the Commission reports on national traffic rules through a publicly available website which summarises the main obligations for drivers and other road users. As far as the 2004 recommendation is concerned, the Commission was unable to regularly monitor its implementation as it had initially envisaged. This was mainly due to the voluntary nature of the reporting obligation for member states. In 2012, the Commission launched a dedicated analysis of member states' national enforcement plans. Because the analysis revealed that not all member states had a concrete enforcement plan within their road safety strategies, the Commission did not produce any report.

56 In March 2023, the Commission proposed a new road safety package that included several initiatives to strengthen traffic legislation and enforcement. The package, which the co-legislators are currently discussing, comprises three legal acts:

- a revised Directive on driving licences, to include a probationary period of at least two years for new drivers and a zero-tolerance rule on drink-driving;
- a new Directive to allow an EU-wide driving disqualification for major traffic offences;
- a revised Directive on cross-border enforcement, to better enforce road-safety-related offences committed abroad.

Vehicles are covered by a standardised framework at EU level, but an ageing car fleet limits its impact

57 The main legal act that sets minimum safety requirements for new vehicles in the EU is the General Safety Regulation (GSR), which was last revised in 2019. As this is an EU regulation, it is directly enforceable in all member states, without the need for national implementing legislation. This approach leads to a high degree of harmonisation.

58 The GSR classifies requirements according to vehicle type and sets different deadlines for its requirements, depending on whether the vehicle is a new model or a newly manufactured vehicle of an existing model (see ***Figure 9*** for examples of the requirements that apply to new vehicles). Moreover, the GSR's provisions allow the Commission to adopt secondary legislation, and amend the list of requirements to include technical and regulatory developments.

Figure 9 – Examples of future mandatory GSR requirements for new vehicles

Dashboard symbol	Type of feature	Compulsory date for new vehicles
	Lane keeping assist	7 July 2024
	Autonomous emergency braking for vehicles	7 July 2024
	Autonomous emergency braking for pedestrians and cyclists	7 January 2026

Source: ECA.

59 The Commission identified these requirements on the basis of their expected effectiveness at reducing fatalities and serious injuries. A Commission study[21] estimated that if the full range of proposed vehicle safety measures were made compulsory by September 2025, almost 25 000 deaths could be avoided across all vehicle categories between 2022 and 2037. For the most part, the adopted GSR took the requirements on board, with adoption envisaged between 2022 and 2026.

60 The requirements set out in the GSR constitute minimum safety standards to be met by all new vehicles sold in the EU. This is especially relevant for low-end models, as more advanced vehicles tend to surpass the GSR's standards, as suggested by the results of safety tests run by Euro NCAP[22].

[21] TRL Ltd., Cost-effectiveness analysis of policy options for the mandatory implementation of different sets of vehicle safety measures, 2018.

[22] Euro NCAP, Year in Numbers, 2022.

61 However, while most new vehicles fall under the requirements of the GSR, certain vehicles can also be approved under an Individual Vehicle Approval procedure, which includes fewer safety requirements. Stakeholders recently raised concerns[23] about a growing trend in imported off-road pick-ups – which are particularly dangerous for vulnerable road users – benefiting from this provision.

62 In addition, the GSR requirements only apply to new cars. Member states' car fleets are ageing, with an EU average age of 12 (see ***Figure 10***). This represents an increase of more than 40 % in the average car age compared to 2010[24]. It will therefore take time for the impacts of the GSR and the new vehicle safety features to filter through. Furthermore, although in 2018 the Commission had envisaged encouraging member states to incentivise vehicle renewal focusing on road safety performance, we found no such support scheme in the member states we visited. However, support schemes do exist for other purposes (such as a better vehicle environmental performance), which may indirectly benefit road safety through the renewal of the car fleet.

[23] BEUC, ECF, ETSC, Eurocities, International Federation of Pedestrians, Polis, Transport & Environment, Letter to Thierry Breton, Commissioner for the Internal Market, 2023.

[24] SWD(2012) 206

Figure 10 – Average age in years in the member states' car fleets

Note: No data available for Bulgaria, Cyprus and Malta.

Source: ECA, based on European Automobile Manufacturers' Association (ACEA) 2021 data.

63 Moreover, it is essential that vehicles continue to maintain minimum safety standards even years after their initial registration. This is particularly important in view of Europe's ageing car fleet. For this to happen, member states need to ensure that the vehicles registered within their territory are periodically tested.

64 An EU Directive sets a minimum frequency for roadworthiness tests, depending on the type of vehicle and its use (e.g. four years after the first registration, and thereafter every two years for cars that are not taxis or ambulances). Within these limits, member states are then free to decide upon their own preferred test schedules. Although certain member states opted for the minimum frequency, others included additional checks. As a result, the intervals at which a vehicle's safety performance is assessed vary significantly between member states. For example, tests have to be performed in Croatia every year from year one, while Italy requires tests every two years starting from year four.

National approaches for improving infrastructure safety vary in sophistication and EU requirements do not cover infrastructure with the most fatalities

65 To reduce fatalities and serious injuries, member states can also act on the design and maintenance of their road networks. Investments should be targeted at those road sections with the highest accident concentration and the highest accident reduction potential[25] (i.e. hotspots). However, member states have different definitions and procedures when it comes to tackling hotspots (see ***Box 2***).

[25] Whereas 16, Directive (EU) 2019/1936.

Box 2

Different approaches to tackling road safety hotspots in member states

- In addition to standard police procedures, Lithuanian legislation requires an in-depth investigation in order to understand the cause of every fatal accident. Sections of the road network with four or more traffic accidents in the last four years are labelled as hotspots and identified on a publicly accessible map with recommendations for drivers. In addition, each of these hotspots is analysed to identify the measures needed to improve road-safety performance. The road operator then has one year to implement these road safety measures. The objective of Lithuania's road-safety strategy is to eliminate all hotspots by 2030.

- Spain uses two criteria to identify road sections with a relatively higher risk of accidents. The first is how dangerous the section is (according to the number of accidents in the past, the length of the stretch of road, and the average traffic volume at different times). The second is the absolute number of accidents. Both parameters are assessed against different thresholds which are defined by the category of road and the volume of traffic.

- Slovakia defines hotspots as one-kilometre sections with five or more registered road accidents in the previous year.

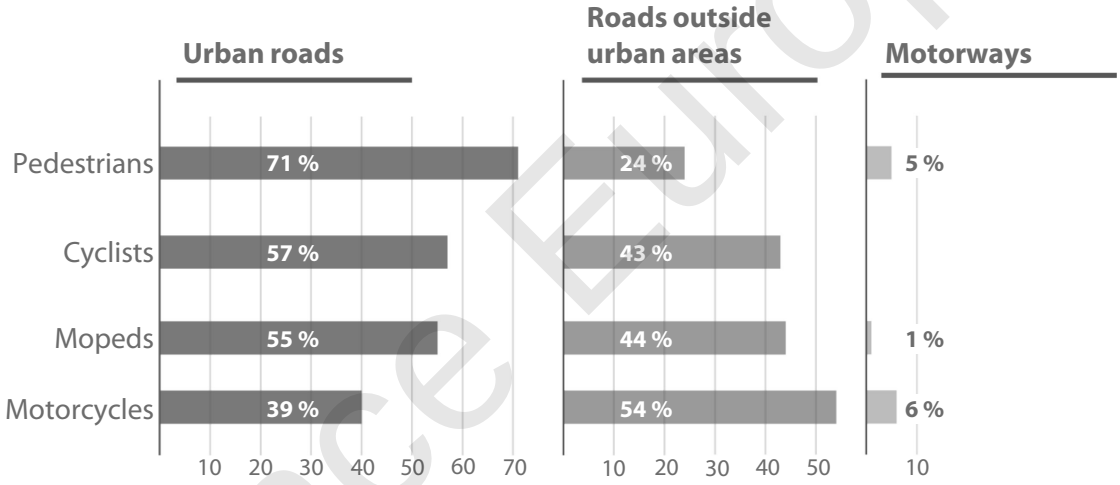
- In 2008, Romania defined hotspots as a section of the road network with a higher-than-average rate of accidents. This definition was repealed in 2018 and, at the time of the audit, no alternative definition had yet been developed. Romania has since launched a project funded by the Recovery and Resilience Facility to address hotspots, using an ad-hoc definition to identify them.

66 In 2008, an EU Directive on road infrastructure safety management (RISM) introduced a common set of procedures that member states must apply to improve the safety of their road networks. After the latest revision in 2019, the RISM Directive now requires member states to conduct *ex ante* assessments and audits of the design of their infrastructure, and *ex post* inspections of any characteristics or defects that required maintenance work. According to the RISM Directive, such procedures are compulsory for projects located on roads that are part of the Trans-European Transport Network (TEN-T), national motorways, primary roads identified by the member state, and road infrastructure in receipt of EU co-funding.

67 The RISM Directive requirements, however, apply neither to (i) urban areas and cycle paths, nor to (ii) non-primary roads which have not received EU funding. This limits the impact of the Directive as these two types of road infrastructure were associated with 93 % of fatalities in 2020, thus being key in the achievement of the EU road safety objectives.

68 **Urban areas** actually accounted for 40 % of overall fatalities, and for the largest percentage of fatalities across all vulnerable road user categories, with the exception of motorcyclists (where accidents on roads outside urban areas are most common, see ***Figure 11***).

Figure 11 – Vulnerable user fatalities in 2020 by type of roads in the EU



Note: Figures do not add up to 100 % due to rounding.

Source: ECA based on Commission data.

69 Since 2013, the Commission has encouraged cities to develop sustainable urban mobility plans (SUMPs) which should include a focus on road safety. However, cities are not yet obliged to include road safety considerations in their SUMPs, or even to formulate these plans at all.

70 The Commission's 2021 proposal for a review of the TEN-T Regulation is currently being discussed by the co-legislators, and will introduce a new requirement for member states to ensure that SUMPs are adopted in most main EU cities by 2025, and to collect and submit data on accidents and serious injuries at urban level to the Commission. These SUMPs will have to include actions to improve road safety, in particular for vulnerable users, as well as objectives, targets and indicators on accidents and injuries.

71 **Roads outside urban areas** accounted for most fatalities in absolute numbers in 2020 (9 931 fatalities or 53 %). While they may fall under the RISM Directive if member states classify them as primary roads, or if they receive EU funding, the Commission did not have an overview of the extent of the national road networks covered by the RISM Directive. Even though the RISM Directive obliged member states to report to the Commission which network sections they defined as "primary" by 2021, less than half of member states actually did so.

72 Moreover, the RISM Directive does not specify minimum safety requirements for each type of infrastructure. While motorway design is largely standardised across the EU, standards for other roads and urban areas vary greatly. The Commission has started an initiative to provide expert guidance on design standards for road infrastructure from a safety perspective.

73 Furthermore, member states are required to carry out a network-wide road safety assessment for those areas covered by the Directive. Such assessments must be completed for the first time by the end of 2024, and thereafter at least every five years. For the purposes of setting intervention priorities, the member states should then classify their road network sections according to their safety level. The Commission will then publish an online map highlighting the different categories.

74 As required by the Directive, and following a series of pilot studies, the Commission presented a methodology in 2023, which member states may choose to follow when conducting their network-wide road safety assessments. The methodology is in two parts: the first is reactive (based on statistics from accidents in the past), and the second is proactive (depending on the road section's design).

75 The Commission's methodology, however, is based on the use of different national thresholds. Its purpose is to establish a tool designed for comparative analysis purposes at national level, so that member states can focus primarily on the most dangerous road sections. However, during the audit, we noted that three of the four member states visited will deviate from the Commission's standard methodology.

New challenges will require further integration of the Commission's road safety actions

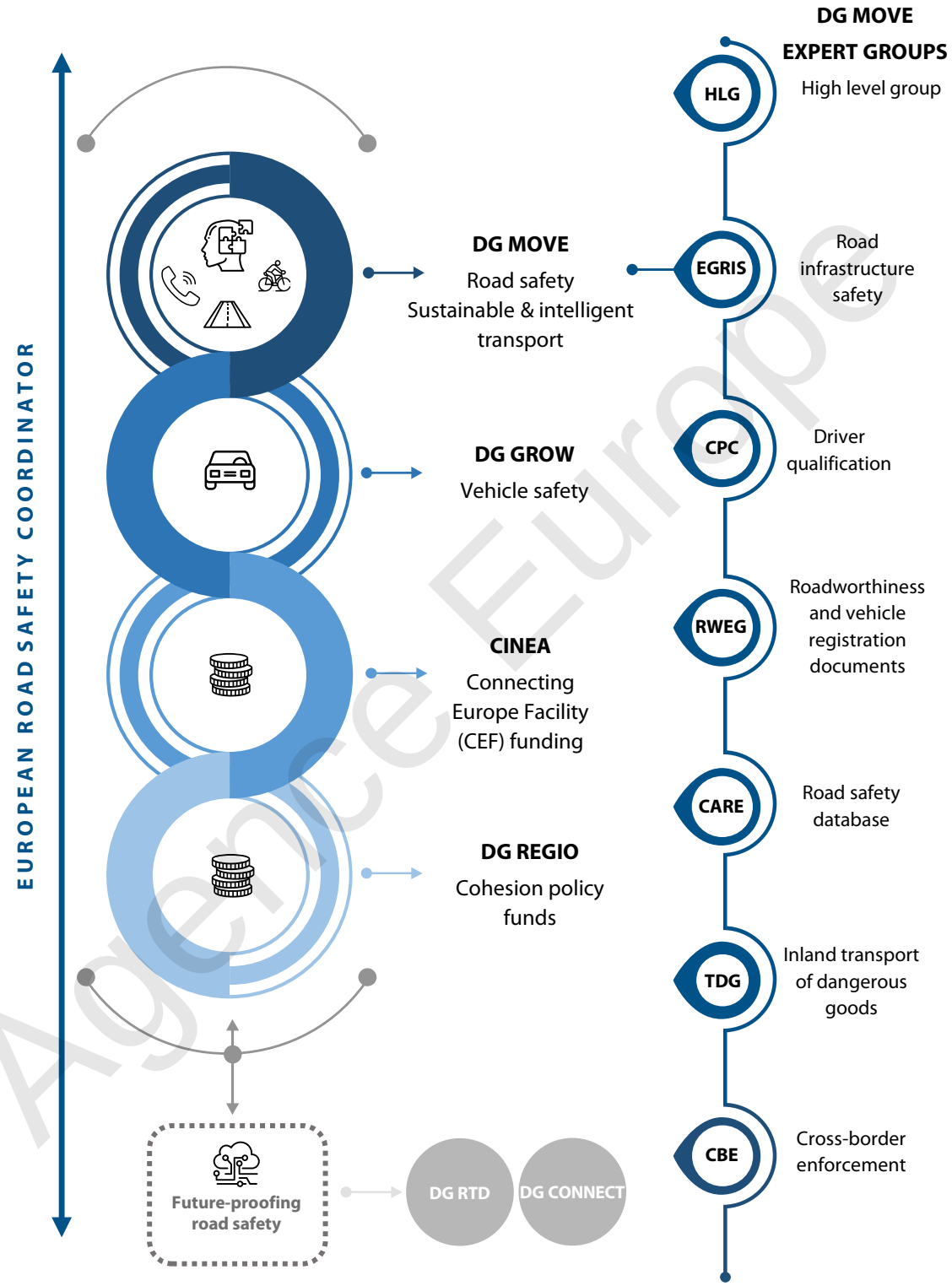
76 For the Safe System approach to work effectively, the actions under its various components should be closely interlinked[26]. For example, advanced vehicle safety features require appropriate road marks and signage in order to function properly, as well as clear traffic rules on how to interact with vulnerable users.

77 While DG MOVE is responsible for most of the Commission's road safety activities, several DGs share responsibility for actions under the Safe System approach. Other expert groups and bodies also support the Commission in advancing EU road safety policy (see ***Figure 12***). For example, the following bodies assist the Commission:

- a High-Level Group on Road Safety made up of member states' representatives, where EU and national road-safety topics are discussed. In 2018, the Commission expanded the High-Level Group's mandate to include strategic advice and stakeholder exchanges;
- a European coordinator for road safety, who is a senior Commission official, tasked with liaising with member states and sharing good practices.

[26] ITF-OECD, *The Safe System Approach in Action*, 2022.

Figure 12 – Commission bodies involved in road safety



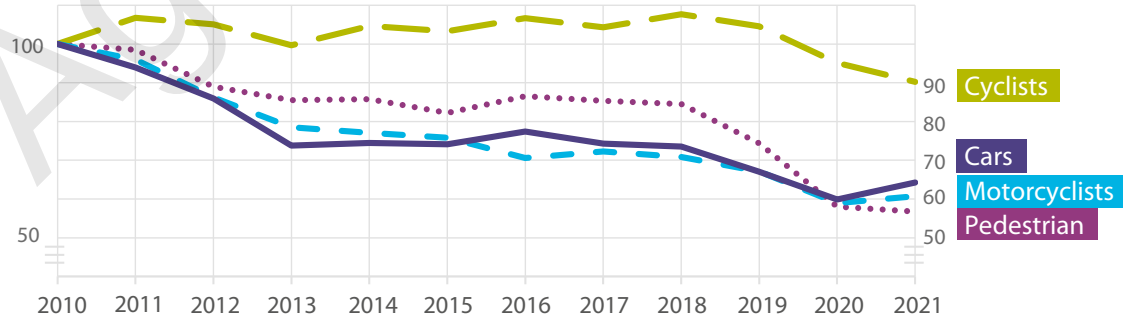
Source: ECA.

78 In 2021, the European Parliament called on the Commission to consider establishing a centralised agency with responsibility for road safety, in line with what already exists for rail, maritime and air transport. The Commission launched a feasibility study in 2023 to analyse possible scenarios, with publication expected at the beginning of 2024. Several of the stakeholders we interviewed also expressed the view that the Commission's activities lacked coordination between the different Safe System approach pillars, and that road safety was not yet mainstreamed across the Commission's policies.

79 Upcoming road safety challenges, such as new forms of mobility in urban areas and the presence of autonomous vehicles, will probably require further integration and coordination of the Commission's different actions. In 2020, urban areas accounted for almost half of fatalities (see paragraph ***68***), and even more for vulnerable users. However, road safety in urban areas is not the responsibility of the road safety unit in DG MOVE, but of a separate unit in charge of mobility in urban areas whose focus is not solely on road safety. At the same time, road safety issues concerning autonomous vehicles span multiple Commission DGs.

80 The EU is calling for greater focus on **active mobility**, such as walking or cycling, especially **in urban areas**. While pedestrian fatalities decreased between 2010 and 2021 in line with the rate for cars, the reduction for cyclists was significantly smaller (see ***Figure 13***). Moreover, there was an increase in the number of cyclists killed in urban areas between 2010 and 2021 in certain member states. For example, in Austria, fatalities involving cyclists in urban areas increased by 68 % over the period.

Figure 13 – Urban-area fatalities per type of road user (2010 to 2021)



Source: ECA, based on Commission data.

81 Personal mobility devices, such as e-scooters, also add to road safety challenges in urban areas. The Commission has not yet issued guidelines in this area and member states' regulatory approaches differ (see ***Annex VII***).

82 **Automated and autonomous vehicles** may contribute positively to road safety, with research estimating that up to 22 % of accidents with fatalities and serious injuries could be avoided by introducing automated driving systems[27]. While the Commission's first strategy in the area dates back to 2018, national rules for driving autonomous vehicles on public roads still vary significantly. For example, Germany has permitted fully automated driving without the presence of a driver since 2022, while other member states have not yet developed any regulatory framework at all.

Achieving EU road safety objectives was not a key criterion for project selection and monitoring indicators

83 EU funding should be allocated to those projects that best contribute to EU priorities and objectives. The European Parliament also called on member states and the Commission to prioritise investments that deliver the greatest road safety benefits, focusing on sections with the highest number of accidents[28].

84 For the projects in our sample, we examined whether road safety had been used effectively as a selection criterion, and also examined the requirements for those projects to estimate their contribution to road safety and monitor outcomes.

Road safety was not a key criterion when selecting infrastructure projects with road safety objectives

85 In the 2014-2020 period, the ERDF/CF and the CEF provided support for road safety mainly by funding infrastructure projects, such as new or upgraded roads, cycle paths, and safe and secure parking areas. Project applicants submitted their applications for EU co-funding in response to published calls for proposals, prepared either by managing authorities (for shared management projects) or by the CINEA (for the CEF). These calls had to comply with the priorities and requirements which were stipulated previously, either in the relevant cohesion operational programmes or in the CEF's work programmes.

[27] Transport Research Foundation, *Automated Driving Systems*, 2017.

[28] Recommendations on next steps towards 'Vision Zero', European Parliament, 2021.

86 We analysed the operational programmes and the related calls under which our audited projects were co-funded. While not all projects were funded under a specific road-safety priority, all of them did include road safety as one of their objectives. Out of nine projects co-funded by the ERDF or the CF, only two were funded under a priority specific to road safety; the other projects were selected under priorities targeting improved accessibility (four projects), greener transport (two projects), and better digital services for citizens (one project). Out of the three CEF projects, only two received support under a priority specific to road safety (safe and secure infrastructure); one project focused instead on the completion of the TEN-T network. Similarly, the main purpose of the motorway works funded by both the CF and the CEF was to remove bottlenecks on the TEN-T network.

87 For most of the projects, the selection criteria used by Commission and managing authorities did not target the sections of road network with the highest number of accidents or fatalities, even if improved road safety was one of the expected benefits. There were only two ERDF projects (in Spain) where the applications were accompanied by a detailed analysis of the number of accidents in previous years, while one of the two also had an analysis of how dangerous the section was. This information was not available for all projects, as it was not required in the applications. Managing authorities and the Commission could have been able to prioritise for co-funding projects with the highest potential impact in terms of reducing fatalities, if this element had to be taken into account for project selection.

88 Furthermore, no specific road safety design criteria were stipulated. Each project promoter was free to adopt their preferred road design, subject to applicable national legislation and standards and, where applicable, the requirements of the Tunnel Safety Directive. Consequently, given the considerable variation in road standards (see paragraph **72**), and in the absence of specific road safety criteria in the selection phase, achievement of a certain level of safety performance for those roads, as well as for cycle paths, was not integrated into the project selection process.

89 For projects co-funded under the ERDF and the CF, responsibility for defining funding priorities for each operational programme and call lies with the managing authorities. The Commission, however, has the opportunity to provide feedback both in the phase where the partnership agreement and the operational programmes are drawn up, before it approves them, and when the programme is being implemented. We found that the Commission had made comments about road safety for those partnership agreements and operational programmes that were relevant for the projects we examined. For example, the Commission requested that projects focusing on road safety in one Spanish region be implemented within a road safety programme in order to avoid resource fragmentation. The final version of the Spanish regional operational programme took this suggestion on board.

90 In 2021, and for the first time, the CEF launched two dedicated road safety topics under which studies and works could be funded. However, this was only applicable to member states eligible for the CF. Examples of actions that could be funded under these topics include the upgrading of accident-prone sections of road, and/or other measures identified in the relevant network-wide road safety assessments (see paragraph ***73***). A total of 15 projects were co-funded in relation to these topics, with overall EU support amounting to € 142.5 million.

91 Lastly, the quality of implementation and maintenance of EU co-funded infrastructure can have a significant impact in terms of safety (see ***Box 3***). However, the EU funding only supports the construction or upgrading of road infrastructure, and project promoters have no commitments to maintain roads in order to ensure a given level of road safety. We noted that in the 2014-2020 period the Commission raised the need for an explicit commitment from Spain to the effect that national funds would be used to maintain co-funded road infrastructure.

Box 3

An example of the impact of poor project maintenance on road safety

One ERDF co-funded project in Spain upgraded a local road and added a cycle path. As the road along the cycle path intersects with other roads, the project included the positioning of the necessary right-of-way signs, and road markings for cyclist and pedestrian crossings, at an appropriate distance from the main road. During our visit, we noted that due to a lack of maintenance, the original road markings had almost disappeared. As a result, most cyclists and pedestrians crossed at a different location, where they were more difficult for drivers to spot. This undermines the original road safety objectives of the project.

Note: The blue lines added to the photo show the original location of the markings of the crossing point for cyclists.

Source: ECA.

EU co-funded projects with road safety objectives did not have to estimate their potential contribution to road safety, or develop any related outcome indicators

92 Project promoters should use an *ex ante* assessment of potential results to design their projects, and then monitor project outcomes *ex post* to determine whether the intended impacts have been achieved. This would ensure that EU co-funding is effective at contributing to EU road safety objectives. We analysed the project applications for funding, including the supporting documents (such as cost-benefit analyses), to assess the degree of planning and monitoring of road safety results.

93 We found that of the 13 projects we examined, only six applications included either a full cost-benefit analysis or an estimate of the project's potential economic benefits, including those related to road safety. This was because in the 2014-2020 period, only projects supported by the CEF and projects with a total eligible cost above € 75 million supported by the ERDF or the CF were required to include a cost-benefit analysis as part of the application.

94 Although the applications mentioned road safety as a project objective, for three of these six projects the expected road safety benefits accounted for only a minor share of the total potential benefit. ***Box 4*** provides an example of this.

Box 4

A safe and secure parking area with a limited impact on road safety

During our audit, we visited one safe and secure parking project co-funded by the CEF. There is a charge for these service and rest areas, which should provide lorry drivers with better safety and security than other parking areas located near motorways or logistics centres and help reduce dangerous parking practices.

Source: ECA.

The project application stated the benefits to road safety due to an expected drop in the number of accidents. However, these benefits were expected to account for less than 1 % of the total benefits of the project. The main benefit envisaged in the application was the time and cost saved when looking for an appropriate parking space. Moreover, the low rate of usage of the parking area undermines the project's actual contribution to road safety.

95 The selection processes for the 13 projects we examined did not require the application or cost benefit analysis to state potential outcomes in terms of avoided fatalities or serious injuries. However, one project explicitly presented an estimate of the potential number of lives that could be saved. Four more projects did not directly provide figures for avoided fatalities and serious injuries, but included them in the total value of the social benefits of the project. One further project estimated the reduction in the number of accidents, but did not provide details of the separate impact on fatalities, or on serious, or minor injuries.

96 The estimates of a project's economic benefits are affected by the fact that the value attributed to human life differs between member states (by a factor of up to four) and by the varied assumptions used in calculations. For example, we found that for the same project in Slovakia, two cost-benefit analyses were prepared within a period of two years. The project design – and thus its potential on reduce fatalities and serious injuries – did not change. However, methodological assumptions differed between the two analyses because the cost-benefit analysis methodologies used for CEF and CF applications varied over time. Under the new calculation, the number of accidents that the project would avoid increased by 10 %, while the economic benefit of each avoided accident increased by a factor of 1.5.

97 The lack of harmonised estimates in project applications meant that it would be very difficult for evaluators and selection committees to make EU-level comparisons between project solutions proposed for funding, considering their cost effectiveness in terms of saving lives. Furthermore, EU road safety objectives have been set in terms of the number of fatalities and serious injuries avoided, rather than in monetary terms (see ***Annex II***).

98 For the projects co-funded by the CEF, the CINEA has not followed up project outcomes after a project was implemented and the related grant agreement closed because there is no requirement to do so. For the audited projects supported by cohesion policy funds, we found only one case of a project-level indicator monitoring road safety outcomes (i.e. the fall in the number of fatalities). By contrast, ***Box 5*** provides examples of other types of indicators defined for the projects we examined, which did not focus on road safety outcomes.

Box 5

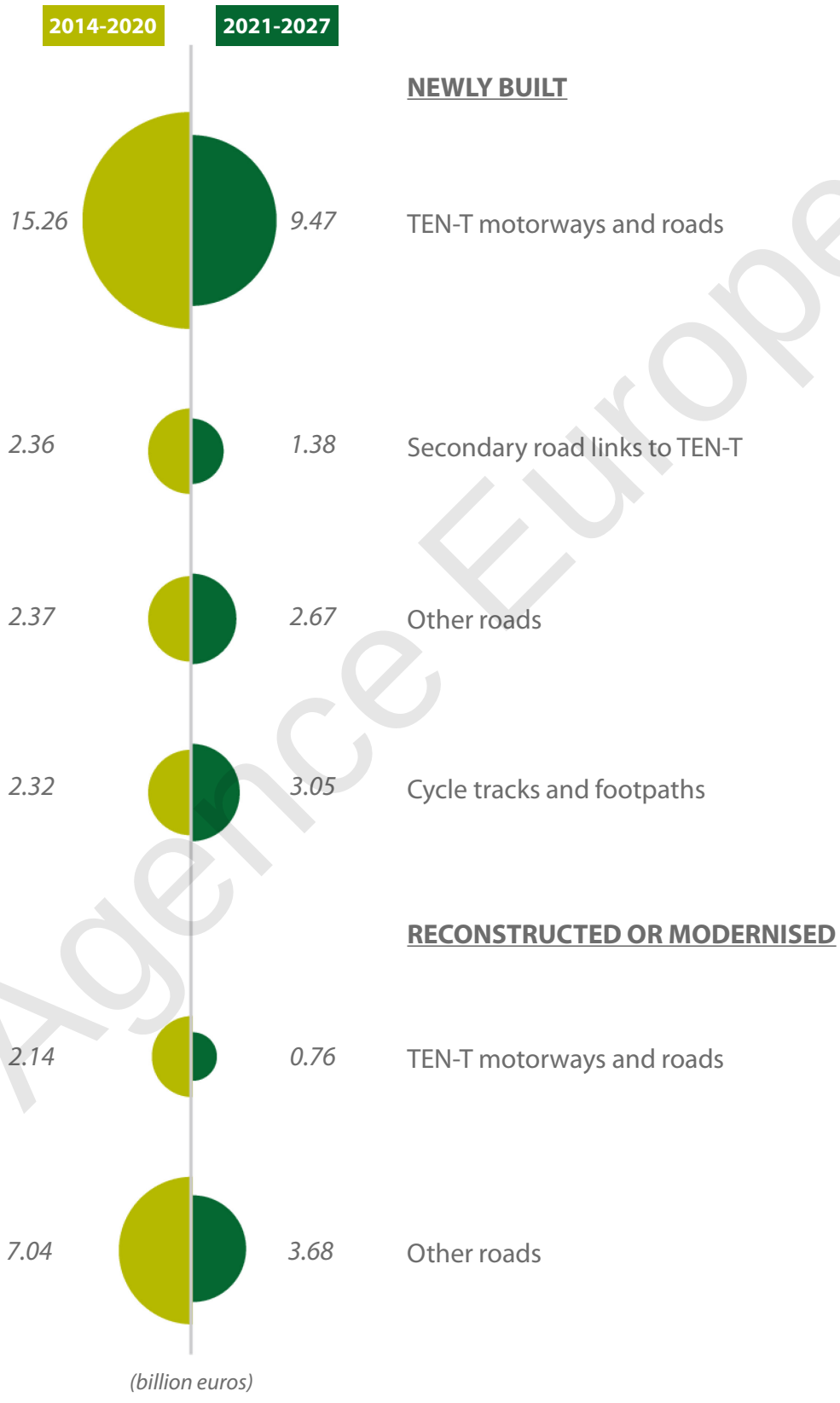
Examples of indicators used at project level and not focusing on road safety outcomes

- One project in Lithuania aimed to upgrade an existing road section and set clear road safety objectives. However, the application did not quantify the project's potential impact on road safety. The only monitoring indicator set was the completed implementation of the safety measures envisaged (e.g. kms of guardrails). Moreover, the project promoter was required to report on the reduction in the average travel time spent on the road, which is not a road-safety indicator.
- The three projects to construct cycle paths had significantly different designs (e.g. whether there was a barrier between the cycle path and the road) which could affect their road safety performance. From a monitoring perspective, however, they were all assessed in terms of the number of kms of infrastructure built, but this overlooked the different potential impacts they could have had on reducing the number of fatalities and serious injuries.

Less cohesion funding may be available for road safety during the 2021-2027 period, but a new conditionality is a first step towards better targeting

99 For the 2021-2027 period the cohesion policy funds earmarked for road infrastructure (including cycle paths) are around 33 % lower than for the previous period (see ***Figure 14***). This reduction in available funding may result in at least a proportional reduction in the funding for future projects specifically aimed at road safety, unless strong prioritisation rules are set in their favour.

Figure 14 – Comparison of the EU co-funding from cohesion policy funds allocated to road infrastructure for the 2014-2020 and the 2021-2027 periods



Source: ECA, based on cohesion data.

100 We also noted that in the 2021-2027 period, a new requirement in the form of an enabling condition was added as a prerequisite for receiving cohesion policy funds. Member states are required to include an assessment of road safety risks in their multimodal transport plans, in line with their existing road safety strategies. They also have to include a mapping of the affected roads and sections, together with a prioritisation of the corresponding investments[29].

101 However, the Commission relies on member states' self-assessments of the degree to which they comply with the requirement. We found that these self-assessments are not homogeneous and do not always provide specific conclusions for all the required criteria. However, the Commission used these self-assessments to provide comments on the partnership agreements, and asked member states to target their road safety measures better. For example, the Commission asked Spain to limit road safety actions to those sections identified in the road safety assessment, which was a pre-condition for funding. Similarly, Romania's transport programme includes specific output and result indicators for road safety, as suggested by the Commission.

102 This requirement for member states is a first step towards ensuring that EU co-funding for road safety is allocated where it could be most effective, provided that the requirement is also appropriately reflected in the project selection.

[29] Enabling condition 3.1.8, Annex IV of Regulation (EU) 2021/1060.

Conclusions and recommendations

103 Road safety is a competence shared between the EU and its member states. However, the national authorities are fully responsible for implementing some actions that have a direct effect on reducing the number of fatalities and serious injuries. The Commission's role is to coordinate activities at EU level, especially when they have a cross-border effect.

104 Overall, we conclude that the Commission has set up a comprehensive framework to deal with road safety (the EU Safe System approach), with ambitious objectives for 2030 and 2050. Based on current progress, and without additional efforts by the EU and member states, we consider that these strategic objectives of halving fatalities and serious injuries between 2020 and 2030, and of getting both close to zero by 2050, are unlikely to be reached.

105 Moreover, we concluded that the Commission still faces challenges in monitoring member states' progress. In addition, EU actions did not cover all risk areas and were not sufficiently integrated. Finally, achieving EU road safety objectives was not a key criterion for project selection and monitoring of EU co-funded projects having road safety objectives in the 2014-2020 expenditure period. This remains a risk for the 2021-2027 period.

106 When looking at the governance pillar, the Commission had not yet carried out an assessment of the extent to which the efforts planned by the member states help to achieve EU road safety objectives. We found that, while almost all member states set objectives for halving fatalities and serious injuries, the level of sophistication of the national strategies in the four member states we visited differed in terms of planned activities, funding needs and other objectives beyond those relating to fatalities and serious injuries (see paragraphs ***28***-***31***).

107 The Commission has not yet managed to achieve sufficient data comparability that would make it possible to define aggregated EU level targets for the performance indicators used to track progress in the member states' road safety measures. We also found comparability issues in the way member states collect and report data on serious injuries to the Commission. Both aspects, especially the latter one, pose considerable challenges for the Commission's monitoring of the member states' contributions towards achieving road safety objectives (see paragraphs ***32***-***37***).

Recommendation 1 – Improve reporting on serious injuries and set performance targets

The Commission should work with member states:

(a) to ensure that they collect and report data on serious injuries using a common definition based on the MAIS3+ trauma scale;

(b) towards a consistent application of the standard methodology, as well as a quantification of interim and final targets for the key performance indicators at national level – and where appropriate, at EU level – for tracking progress towards the 2030 and 2050 objectives.

Target implementation date: by 2026.

108 For the other examined pillars of the Safe System approach, we identified the following issues:

- the *road use pillar* did not cover all main risk areas, such as speed. The level of enforcement against traffic offenders also differs between member states, and the Commission's role in overseeing national enforcement approaches is limited. These factors undermined the pillar's contribution to the achievement of the EU road safety objectives (see paragraphs ***44***-***56***);
- the *vehicle pillar* covered road safety aspects using a standardised framework at EU level applicable to new vehicles. However, its impact was limited by the fact that member states' car fleets are ageing. The member states we visited had not introduced financial incentives for people to renew their vehicles on the basis of road safety performance although schemes to replace cars for other purposes – such as better environmental performance – may indirectly benefit road safety (see paragraphs ***57***-***64***);
- the *infrastructure pillar* entailed variations in member states' approaches for improving the safety of their national road infrastructure networks – e.g. for identifying dangerous sections and analysing causes of accidents – in terms of their degree of sophistication and the criteria they used. EU legislation in this field introduced common principles and procedures, but its scope does not cover the type of infrastructure associated with most fatalities and thus key to the achievement of the EU objectives, such as urban areas, non-primary roads outside urban areas and cycle paths, where safety standards differ considerably (see paragraphs ***65***-***75***).

109 Lastly, we found that new road safety challenges (stemming from new forms of mobility in urban areas and autonomous vehicles) will require further integration and coordination of the Commission's actions under the road use, vehicle and infrastructure pillars. Following a request by the European Parliament, the Commission is assessing whether to set up an EU agency with responsibility for road safety, among other things, to promote new initiatives and improve coordination (see paragraphs ***76-82***).

Recommendation 2 – Increase the focus on the causes of accidents and introduce further guidance covering all risk areas

The Commission should:

(a) promote detailed investigations of the causes of accidents by the member states, especially in hotspots, and harmonised reporting on them;

(b) provide member states with further guidance to address the main risk factors more effectively (including speed and infrastructure design for roads with the highest number of fatalities), with a particular focus on vulnerable road users.

Target implementation date: by 2026.

110 In addition to action at policy and legislative level, the EU Safe System approach includes a 'stronger financial support' pillar. We found that prior to its launch, in the 2014-2020 period, road safety was not a key criterion when selecting road infrastructure projects with road safety objectives, as it competed with other priorities (such as increased accessibility and greener transport). For most of the projects we examined, the selection criteria did not target the network sections with the highest number of accidents or fatalities. Moreover, the Commission or managing authorities did not set any road safety design criteria. Consequently, given the considerable variation in road standards, achievement of a certain level of safety performance for rural roads and urban areas was not integrated into the project selection (see paragraphs ***85-91***).

111 For the projects in our sample covering the 2014-2020 period, we found that they did not have to estimate their potential contribution to road safety. Although some did so, the calculations were affected by significant variation in assumptions and the fact that the value attributed to human life differs between member states (by a factor of up to four). Moreover, the lack of harmonised estimates in project

applications meant that projects could not be compared in terms of their cost effectiveness for saving lives (see paragraphs ***92***-***97***).

112 Lastly, we found that only one project set indicators in the design phase to monitor project outcomes in terms of road safety. We also found that the CINEA did not follow up outcomes after projects were completed. There is, therefore, no consistent assessment available on the extent to which the co-funded projects were effective in contributing to national and EU road safety objectives (see paragraph ***98***).

113 For the current 2021-2027 period, less EU funding is earmarked for road infrastructure overall under cohesion policy funds. Consequently, funding for future projects aimed at improving road safety may decrease, unless strong prioritisation rules are set in their favour. A new enabling condition introduced for this period includes road safety requirements. This is a first step towards improving the way EU co-funding is targeted where it could be most effective for road safety (see paragraphs ***99***-***102***).

Recommendation 3 – Envisage clearer prioritisation and an *ex post* assessment for EU co-funded projects with road safety objectives

The Commission should:

(a) prioritise the selection of projects with road safety objectives which are submitted under the Connecting Europe Facility (direct management), which have explicitly provided quantitative data on their expected results in terms of avoiding fatalities and serious injuries;

(b) advise programmes' monitoring committees to specify relevant selection criteria that include road safety objectives for road projects under shared management, for example, by building on the results of the network-wide road safety assessment;

(c) promote the concepts under (a), for programmes and projects with road safety objectives under shared management, to managing authorities (in particular when designing programmes) and the programmes' monitoring committees;

(d) develop outcome indicators to assess project performance in terms of road safety for the purpose of *ex post* evaluations.

Target implementation date: by 2025.

This report was adopted by Chamber II, headed by Mrs Annemie Turtelboom, Member of the Court of Auditors, in Luxembourg at its meeting of 7 February 2024.

For the Court of Auditors

Tony Murphy
President

Annexes

Annex I – Examples of actions under each pillar of the UN's Safe System approach

Pillar of the UN's Safe System approach	Examples of actions
Multimodal transport and land-use planning	— Implement policies that promote compact urban design — Discourage the use of private vehicles in high-density urban areas
Safe road infrastructure	— Undertake crash-risk mapping and proactive safety assessments — Specify a technical standard and a star rating target for all road designs linked to each user
Vehicle safety	— Require high-quality harmonised safety standards for new and used motor vehicles, child-restraint systems, and helmets — Ensure that such standards are kept throughout the full lifecycle of the vehicle
Safe road use	— Enact and enforce road safety legislation (including setting maximum speed limits and restricting the use of handheld electronic devices at the wheel) — Establish licensing requirements for professional drivers
Post-crash response	— Provide a system to activate a post-crash response (e.g. a unique emergency number) — Build response capacity among non-medical professionals

Source: ECA, based on UN *Global Plan*, 2021.

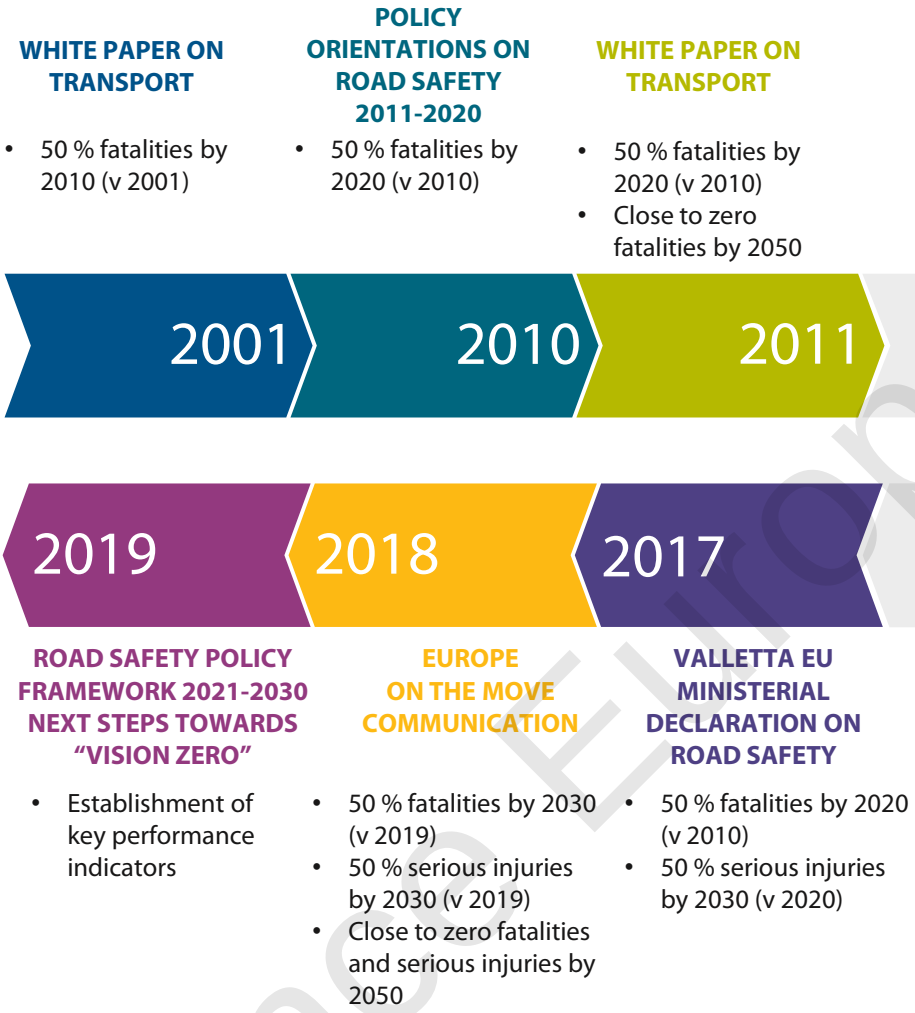
Annex II – The Commission's evolving road safety objectives since 2001

The first time the Commission set an EU-wide road safety objective was in the 2001 White Paper, which at the time was intended to halve the number of road deaths between 2000 and 2010. In 2003, the European Parliament and the Council also endorsed this objective. With its 2011 White Paper, the Commission set a new objective of reaching close to zero road fatalities by 2050, with an interim objective of halving fatalities by 2020 (compared to 2010).

Although the White Paper's preparatory documents already warned that the interim objective could not be met even under the best case scenario, member states supported these objectives in the 2017 Valletta Declaration. In this Declaration, they also proposed a new objective of halving the number of serious injuries in the EU by 2030.

With the 2018 Europe on the Move communication, the EU set the current objectives of halving road fatalities and serious injuries by 2030 and getting close to zero by 2050. Lastly, the Commission's Road Safety Policy Framework 2021-2030 – Next steps towards "Vision Zero" document introduced a set of key performance indicators to track member states' progress towards the achievement of the objectives.

The EU's road safety objectives since 2001



Source: ECA.

Annex III – EU regulatory framework for the Safe System approach pillars we audited

Safe System approach pillar	Legal act	Focus
Safe road use	Directive (EU) 2015/413	Cross-border exchange of information on road safety-related traffic offences (CBE)
	Commission Implementing Directive 2014/37/EU	Compulsory use of safety belts and child restraint systems in vehicles
	Directive (EU) 2022/2561	Initial qualification and periodic training of drivers of vehicles for the carriage of goods or passengers
	Directive 2014/85/EU	Driving licences
	Commission Recommendation of 17 January 2001	Maximum permitted blood alcohol content (BAC) for drivers of motorised vehicles
	Commission Recommendation 2004/345/EC	Enforcement in the field of road safety
Safe vehicles	Regulation (EU) 2019/2144	Safety requirements for the approval of new vehicle models
	Directive 2014/45/EU	Periodic roadworthiness tests for motor vehicles
	Directive 2007/38/EC	Retrofitting mirrors to heavy goods vehicles
	Council Directive 92/6/EEC	Speed limitation devices for certain categories of motor vehicle
	Council Directive 91/671/EEC	Seat belts and other restraint systems for vulnerable users
Safe roads and roadsides (infrastructure)	Directive (EU) 2019/1936	Road infrastructure safety management procedures

Source: ECA.

Annex IV – List of EU co-funded projects sampled for the audit

A – List of CEF co-funded projects visited and reviewed during the audit

Member state	ID	Project description	Type of support for road safety	Start date	Date of completion (planned v actual)	Total eligible cost *(euros)* (planned v latest estimate)	EU co-funding rate	EU co-funding committed *(euros)* (planned v latest estimate)
Lithuania	1	Upgrade of the Panevezys bypass on the E67 road	Upgraded road	21/12/2015	31/12/2018 30/06/2021	60 510 312 38 817 338	60.38 %	36 536 126 23 437 909
	2	Parking area with 38 parking spaces	Safe and secure parking	01/03/2020	28/02/2022 31/05/2022	1 247 652 1 247 652	83 %	1 039 294 1 039 294
Romania	3	Parking area with 70 parking spaces	Safe and secure parking	02/03/2020	31/03/2023 30/09/2023	4 175 990 4 175 990	82.3 %	3 436 840 3 436 840
Slovakia	4[1]	Construction of motorway D3	New motorway	15/11/2016	31/12/2020 31/12/2021	114 106 329 114 106 329	65.13 %	74 317 452 74 317 452

[1] The same project is also listed among CF-funded projects under ID 12.

B – List of ERDF / CF co-funded projects visited and reviewed during the audit

Member state	ID	Project description	Type of support for road safety	Start date	Date of completion (planned v actual)	Total eligible cost *(euros)* (planned v latest estimate)	EU co-funding rate	EU co-funding committed *(euros)* (planned v latest estimate)
Spain	5	Construction of segregated cycle path in the Madrid urban area	Cycle path	04/05/2021	02/11/2021 03/05/2022	6 578 854 6 578 854	50 %	3 289 427 3 289 427
	6	Road safety actions along road A-2003, and construction of a segregated cycle path	Upgraded road and construction of cycle path	09/01/2018	28/12/2018 28/12/2018	3 136 159 2 375 982	80 %	2 508 928 1 900 785
	7	Improvement of the existing section of the A-492 road	Upgraded road	12/07/2018	31/12/2023 cancelled	10 221 468 cancelled	80 %	8 177 175 cancelled
	8	Improvement of the existing section of the A-483 road	Upgraded road	01/03/2021	31/12/2023 cancelled	7 551 651 cancelled	80 %	6 041 321 cancelled

Member state	ID	Project description	Type of support for road safety	Start date	Date of completion (planned v actual)	Total eligible cost *(euros)* (planned v latest estimate)	EU co-funding rate	EU co-funding committed *(euros)* (planned v latest estimate)
Lithuania	9	Reconstruction of the TEN-T road E85 between Vilnius and Kaunas, and installation of road safety measures	Upgraded road	08/08/2019	31/01/2022 31/07/2022	42 710 939 42 710 939	43 % 70 %	18 353 691 29 935 624
Romania	10	Improvement of Transylvania North Regional Trail (DJ 172A, DJ 161G and DJ 161)	Upgraded road	04/12/2015	31/07/2020 ongoing	27 955 042 27 955 042	85 %	23 761 786 23 761 786
	11	Development of a mixed mobile road traffic monitoring system for traffic violations	Road traffic monitoring system	01/07/2021	31/12/2023 ongoing	19 300 740 19 300 740	85 %	16 405 629 16 405 629

Member state	ID	Project description	Type of support for road safety	Start date	Date of completion (planned v actual)	Total eligible cost *(euros)* (planned v latest estimate)	EU co-funding rate	EU co-funding committed *(euros)* (planned v latest estimate)
Slovakia	12[1]	Construction of motorway D3	New motorway	12/2016	05/2021 06/2022	110 007 346 73 265 886	65.13 % 85 %	71 644 484 62 276 003
	13	Smart Plan of the city of Senica	Smart solutions for the city (including traffic management)	04/2022	09/2023 ongoing	999 882 999 882	85 %	849 900 849 900
	14	Cycle routes in the city of Senica	Cycle path	05/2019	09/2020 06/2022	1 480 601 1 419 076	85 %	1 258 511 1 206 215

[1] The same project is also listed among CEF-funded projects under ID 4.

Annex V – Overview of national road safety objectives

Member state	Fatality reduction objective	Serious injury reduction objective
Belgium	- 50 %[1], with a maximum of 320	- 50 %[1], with a maximum of 1800
Bulgaria	- 50 % compared to 2019	- 50 % compared to 2019
Czechia	- 50 % compared to average 2017-2019	- 50 % compared to average 2017-2019
Denmark	Maximum 90	Maximum 900
Germany	- 40 % compared to 2021	No objective
Estonia	- 52 % compared to 2016	- 31 % compared to 2016
Ireland	- 50 % compared to average 2017-2019	- 50 % compared to average 2017-2019
Greece	- 50 % compared to 2019	- 50 % compared to 2019
Spain	- 50 % compared to 2019	- 50 % compared to 2019
France	- 50 % compared to 2019	- 50 % compared to 2019
Croatia	- 50 % compared to 2019	- 50 % compared to 2019
Italy	- 50 % compared to 2019	- 50 % compared to 2019
Cyprus	- 50 % compared to 2019	- 50 % compared to 2019
Latvia	- 50 % compared to 2020	- 50 % compared to 2020
Lithuania	- 50 % compared to 2019	- 50 % compared to 2020
Luxembourg	No objective	No objective
Hungary	- 50 % compared to 2020	- 50 % compared to 2020
Malta	No objective	No objective
Netherlands	No objective	No objective
Austria	- 50 % compared to average 2017-2019	- 50 % compared to average 2017-2019
Poland	- 50 % compared to 2019	- 50 % compared to 2019
Portugal	- 50 % compared to 2019	- 50 % compared to 2019
Romania	- 50 % compared to 2019	- 50 % compared to 2019

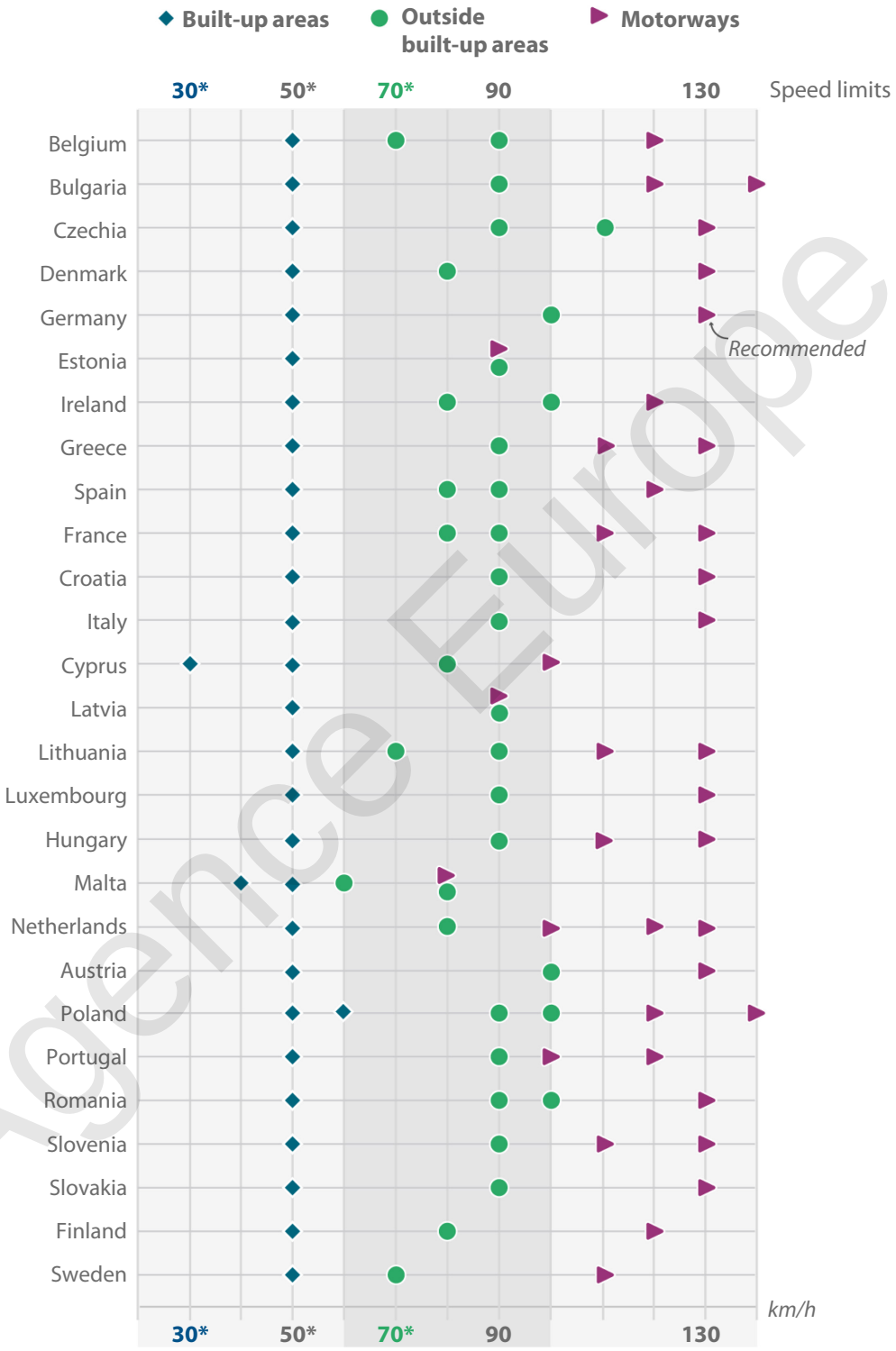
Member state	Fatality reduction objective	Serious injury reduction objective
Slovenia	Objectives under development	Objectives under development
Slovakia	- 50 % compared to 2020	- 50 % compared to 2020
Finland	- 50 % compared to 2020	- 50 % compared to 2020
Sweden	- 50 % compared to average 2017-2019	- 50 % compared to average 2017-2019

[1] The ETSC study did not specify the baseline against which to calculate the reduction.

Note: The years by when these objectives have to be achieved differ between member states.

Source: ECA, based on the ETSC study and audit work.

Annex VI – Comparison of national speed limits with speeds recommended in an international study



Note: * Recommended speed per type of areas. The study recommends: 30-40 km/h in built-up areas where there is a mix of vulnerable road users and motor vehicle traffic; 50 km/h in areas with intersections and high risk of side collisions; 70-80 km/h on rural roads without a median barrier, presenting a risk of head-on collisions.

Source: ECA based on the Commission's 2022 *Statistical pocketbook* and International Traffic Safety Data and Analysis Group (ITF-OECD), *Speed and crash risk*, 2018.

Annex VII – Legal status of e-scooters in 15 EU member states

Note: The member states included in the figure are the members of the Forum of European Road Safety Research Institutes (FERSI) that responded to an e-scooter survey in 2020.

Source: ECA, based on a FERSI study.

Abbreviations

CEF: Connecting Europe Facility

CF: Cohesion Fund

CINEA: European Climate, Infrastructure and Environment Executive Agency

DG MOVE: Directorate-General for Mobility and Transport

ERDF: European Regional Development Fund

GSR: General Safety Regulation

KPI: Key performance indicator

MAIS3+: Maximum Abbreviated Injury Scale (score of 3 or more)

RISM: Road Infrastructure Safety Management

SUMP: Sustainable Urban Mobility Plan

TEN-T: Trans-European Transport Network

Glossary

Active mobility: Form of transport that involves physical activity only, such as walking and cycling.

Cohesion Fund: EU fund for reducing economic and social disparities in the EU by funding investments in member states where the gross national income per inhabitant is less than 90 % of the EU average.

Connecting Europe Facility: EU instrument providing financial support for the creation of sustainable interconnected infrastructure in the energy, transport, and information and communication technology sectors.

Cost-benefit analysis: Comparison of the estimated costs of a proposed course of action compared with the benefits it is expected to bring.

Direct management: Management of an EU fund or programme by the Commission alone, in contrast to shared management or indirect management.

Enabling condition: Prerequisite for member states to receive payments from the European Structural and Investment Funds, linked to the achievement and assessment of specific objectives.

European Regional Development Fund: EU fund that strengthens economic and social cohesion in the EU by financing investments to reduce imbalances between regions.

European Semester: Annual cycle which provides a framework for coordinating the economic policies of EU member states and monitoring progress.

Executive agency: Organisation set up and managed by the Commission, for a limited period, to carry out specified tasks related to EU programmes or projects on its behalf and under its responsibility.

Key performance indicator: Quantifiable measure showing performance against key objectives.

Managing authority: The national, regional or local authority (public or private) designated by a member state to manage an EU-funded programme.

Monitoring committee: Body that oversees the implementation of an operational programme, comprising representatives of member state authorities and the Commission as an observer.

Multimodal transport planning: Combining various modes of transport in an interconnected, complementary manner to form an integrated transport network.

Partnership agreement: Agreement between the Commission and a member state or third country/-ies in the context of an EU spending programme, setting out, for example, strategic plans, investment priorities or the terms of trade or development-aid provision.

Recovery and Resilience Facility: The EU's financial support mechanism to mitigate the economic and social impact of the COVID-19 pandemic and stimulate recovery, and meet the challenges of a greener and more digital future.

Safe System approach: Approach to road safety aimed at making greater allowance for human error and reducing the risk of accidents resulting in serious injury or death.

Shared management: Method of spending the EU budget in which, in contrast to direct management, the Commission delegates to the member state while retaining ultimate responsibility.

Trans-European Transport Networks: Set of road, rail, air and water infrastructure development projects implementing the trans-European transport network policy, including a high-speed rail network, a satellite navigation system, and smart transport management systems.

Vulnerable road users: Non-motorised road users, such as pedestrians and cyclists, as well as motor-cyclists, and persons with disabilities or reduced mobility and orientation.

Replies of the Commission

https://www.eca.europa.eu/en/publications/sr-2024-04

Timeline

https://www.eca.europa.eu/en/publications/sr-2024-04

Audit team

The ECA's special reports set out the results of its audits of EU policies and programmes, or of management-related topics from specific budgetary areas. The ECA selects and designs these audit tasks to be of maximum impact by considering the risks to performance or compliance, the level of income or spending involved, forthcoming developments and political and public interest.

This performance audit was carried out by Audit Chamber II Investment for cohesion, growth and inclusion spending areas, headed by ECA Member Annemie Turtelboom. The audit was led by ECA Member Eva Lindström, supported by Kristina Maksinen, Head of Private Office, Johan Stalhammar, Private Office Attaché, and Elena Graziuso, Policy Assistant; Gediminas Mačys, Principal Manager; Guido Fara, Head of Task; Paloma Muñoz Mula, Deputy Head of Task; and Agnese Balode, Alfredo Ladeira, Karel Meixner, Amelia Padurariu, Vaidas Šulcas, Auditors. Lidija Aubin, Laura McMillan and Iulia-Mihaela Vladoianu provided linguistic support.

From left to right: Johan Stalhammar, Elena Graziuso, Iulia-Mihaela Vladoianu, Agnese Balode, Gediminas Mačys, Alfredo Ladeira, Eva Lindström, Karel Meixner, Guido Fara, Kristina Maksinen, Laura McMillan, Paloma Muñoz Mula, Vaidas Šulcas, Amelia Padurariu.

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In 2022, 20 640 people were killed in road accidents in the EU, with pedestrians, cyclists and motorcyclists particularly at risk. The EU aims at halving road fatalities and serious injuries by 2030 and getting close to zero by 2050. We assessed whether the Commission had been effective at setting up the EU Safe System approach and supporting member states in the achievement of those objectives. We concluded that the Commission has set up a comprehensive approach. However, we identified shortcomings in the Commission's actions. At the current rate of progress, and without additional efforts from the EU and member states, these ambitious objectives are unlikely to be reached. We made recommendations to increase the effectiveness of the Commission's initiatives in the area.

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EUROPEAN
COURT
OF AUDITORS

Publications Office
of the European Union

EUROPEAN COURT OF AUDITORS
12, rue Alcide De Gasperi
1615 Luxembourg
LUXEMBOURG

Tel. +352 4398-1

Enquiries: eca.europa.eu/en/contact
Website: eca.europa.eu
Twitter: @EUAuditors