Road safety in the EU

SUMMARY
Between 1991 and 2014, and especially after 2000, the EU witnessed substantial improvements in terms of road safety, whether measured in terms of fatalities, accidents or injuries. Over a shorter period, between 2001 and 2010, the number of deaths on EU roads decreased by 43 %, and by a further 17 % since 2010.

The most recent figures, however, show that progress in reducing the fatality rate has slowed and that specific road users or demographic groups are not witnessing the same improvements as the rest of the population.

Road safety is a shared competence, implying that many measures are primarily dealt with by Member States. However, the EU, in line with Article 91(c) TFEU, has significantly developed the acquis in this area, with the Commission adopting several policy frameworks on road safety. In 2003, the EU set itself a target in terms of reducing road fatalities, and regularly monitors progress towards this goal. In its July 2010 communication ‘Towards a European road safety area: policy orientations on road safety 2011-2020’, the Commission proposed to continue aiming for a target to halve the overall number of road deaths in the EU by 2020, starting from 2010. The EU is also looking at innovations which have a strong safety potential.

The European Parliament has adopted numerous resolutions regarding or covering road safety, calling notably for a fully fledged strategy for people sustaining serious injury and for more detailed and measurable targets.

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Introduction

Despite being the safest region in the world, and sustained efforts to tackle road safety, 26 000 people died on EU roads in 2015 and 135 000 were seriously injured. Over the longer term, the EU witnessed substantial progress in terms of a reduction in the number of fatalities, accidents and the number of persons injured (see Figure 1). However, effort is still needed to achieve the overall objective of halving the number of road deaths in the EU by 2020; to address the safety needs of the most vulnerable road users (e.g. pedestrians, cyclists, motorcyclists); and to cope with the emergence of new challenges such as an ageing population, the use of distracting electronic devices in traffic, or the opportunities offered by new technologies (e.g. automated driving systems).

Background

Long term evolution

The long term evolution, between 1991 and 2014, of three indicators – fatalities, accidents and injured people – shows that the EU witnessed substantial improvements in terms of road safety, especially since the year 2000. While the number of injured people culminated at over 2 million in 2001, the figure steadily declined (with an exception for 2014) to over 1.4 million injured in 2014. In terms of fatalities, the downward trend was more constant, from 76 200 fatalities in 1991 to 54 900 in 2001 and 25 900 in 2014. The evolution in terms of accidents followed a pattern similar to that of people injured, peaking at around 1.48 million in 1999 and 2001, before decreasing steadily to 1.08 million in 2014. The combined evolution of the three indicators shows that the decrease in road deaths was faster than the decrease in accidents and people injured. Over a shorter period, between 2001 and 2010, the number of deaths on EU roads decreased by 43 %, and by 17 % since 2010.

Nevertheless, the most recent figures show that progress in reducing the fatality rate slowed in 2013, 2014 and 2015, and that specific road users (e.g. pedestrians and cyclists) or demographic groups (e.g. elderly road users) are not witnessing the same improvements as the rest of the population (see next section).

Figure 1 – Evolution of fatalities, accidents and injured in the EU (reference year 2000 = 100)

Data source: EPRS calculation based on CARE (EU road accidents database) or national publications, February 2016.
Vulnerable road users
The analysis of fatalities by road user and age group and their evolution since 2010 highlight the particular situation for some sub-groups.

The data provided in the interim evaluation of the policy orientations on road safety 2011-2020, published by the Commission in May 2015, show that two age groups are over-represented among road fatalities (see Table 2). People over 65 account for 25% of fatalities, while they represent 18% of the population, and young people between 15 and 24 years account for 17% of fatalities, while representing 11% of the population. The elderly have seen less reduction in fatalities over the years 2010-2013 (-5%) than any other age group. Results by gender show that the vast majority of road victims are male, a result which is even more pronounced among car driver fatalities. Though the number of fatalities decreased quite evenly for both genders between 2005-2014, the annual distribution of fatalities by gender in 2014 in the EU was 19,991 for men and 6,332 for women.

Table 2 – 2010-2013 evolution in terms of fatalities by age groups of road users

<table>
<thead>
<tr>
<th>Age group</th>
<th>Share of fatalities</th>
<th>Share of population</th>
<th>Change in number of fatalities 2010-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 15</td>
<td>&lt;3%</td>
<td>16%</td>
<td>-25%</td>
</tr>
<tr>
<td>15-24</td>
<td>17%</td>
<td>11%</td>
<td>-28%</td>
</tr>
<tr>
<td>25-49</td>
<td>36%</td>
<td>35%</td>
<td>-22%</td>
</tr>
<tr>
<td>50-64</td>
<td>19%</td>
<td>20%</td>
<td>-13%</td>
</tr>
<tr>
<td>Over 65</td>
<td>25%</td>
<td>18%</td>
<td>-5%</td>
</tr>
</tbody>
</table>


Table 3 shows that over half of the people killed on the roads are car occupants (45%) or motorcyclists (15%), while pedestrians and cyclists account, respectively for 22% and 8% of road deaths. However, the decrease in fatalities was much less salient for these last two categories (-3% only for cyclists and -11% for pedestrians) than for other road users, in particular car occupants (-21%).

Table 3 – Share and evolution of fatalities by road user group – 2010-2013

<table>
<thead>
<tr>
<th>Road user group</th>
<th>Share of all road deaths</th>
<th>Fatality decrease 2010-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car occupants</td>
<td>45%</td>
<td>-21%</td>
</tr>
<tr>
<td>Motorcyclists</td>
<td>15%</td>
<td>-17%</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>22%</td>
<td>-11%</td>
</tr>
<tr>
<td>Cyclists</td>
<td>8%</td>
<td>-3%</td>
</tr>
<tr>
<td>Goods vehicles &gt; 3.5 tonnes</td>
<td>2%</td>
<td>-9%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
<td>-21%</td>
</tr>
</tbody>
</table>


An analysis of results by area type shows that motorways are the safest roads, accounting for 7% of all road deaths, while 38% of all road deaths happened inside urban areas and 55% in rural areas.

Results by country
The results by country for 2010 and 2014 (see Figure 4) show that road deaths per million inhabitants went down from 63 at EU level in 2010 to 51 in 2014. Differences between Member States are also decreasing. In 2010, there were still five Member States (Romania, Greece, Bulgaria, Latvia and Poland) with over a hundred road deaths per million inhabitants. In 2014 there was only one: Latvia. In 2010, the three worst
performing states regarding this indicator stood respectively at 117 road deaths per million inhabitants (Romania), 112 (Greece) and 105 (Bulgaria), while the best performers were Sweden (28), the United Kingdom (30) and the Netherlands (32). In 2014, the least performing states were Latvia (106), Bulgaria, Lithuania and Romania (all three: 91) and the best Malta (24), Sweden (28) and the Netherlands (28). The preliminary country results for 2015 published in March 2016 show that, at EU level, the results are nearly stable at 51.5 (as opposed to 51 in 2014). However, the main preliminary finding is that there is no Member State with more than a hundred road deaths per million inhabitants, and that differences between countries are diminishing.

Figure 4 – Road deaths per million inhabitants


EU action in the area of road safety

In line with title VI Transport, Article 91 (c) of the Treaty on the Functioning of the European Union (TFEU), which mentions that the European Parliament and the Council shall, acting in accordance with the ordinary legislative procedure, lay down 'measures to improve transport safety', the EU has significantly developed the acquis in this area, and the European Commission has adopted several policy frameworks on road safety.

EU legislation in the area of road safety.

Road safety is a shared competence, implying that many measures, such as traffic rule enforcement, or road user education, are primarily dealt with by Member States. The EU intervenes where it adds value and focuses in particular on measures regarding vehicle conditions, the transport of dangerous goods and the safety of the road network.

Concerning the technical condition of vehicles, the Commission presented a new roadworthiness package in July 2012 that updated existing rules, reinforcing and widening the scope of the vehicle testing regime, leading to the adoption of the following three directives:

- Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union and repealing Directive 2000/30/EC;

These new directives, adopted on 3 April 2014, notably improve the quality of vehicle tests through setting common minimum standards for equipment, training of inspectors, and assessment of deficiencies; make electronic safety components (such as ABS and airbag) subject to mandatory testing; fight mileage fraud, with registered mileage readings; and introduce compulsory EU-wide testing for heavy motorcycles (i.e. more than 125 cm3) from 2022, unless a Member State reaches equivalent road safety enhancement by other measures.


On transport of dangerous goods, an area traditionally governed by international agreements, the EU developed legislation to convert these rules into specific directives applying to all transport in the EU. Directive 94/55/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by road extended the rules laid down in the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) to domestic transport. Directive 2008/68/EC on the inland transport of dangerous goods set up a common regime covering all aspects of the inland transport of dangerous goods in the EU, and applies to the transport of dangerous goods by road, rail, or inland waterway. In order to reflect scientific and technical progress, the ADR Agreement is updated every two years, leading the EU to bring its own provisions in line with these international updates (e.g. Commission Directive 2012/45/EU). The EU acquis also includes Council Directive 95/50/EC on uniform procedures for checks on the transport of dangerous goods by road that provides a standard list of control points and requires a report on the checks to be made available to any authorities carrying out further verification, in any EU country. As for EU Directive 98/91 relating to motor vehicles and their trailers intended for the transport of dangerous goods by road, this covers the type-approval of vehicles used to carry dangerous goods, incorporates the technical requirements from the international road transport agreement (ADR) and introduces an EU-wide certificate, to ease the registration of vehicles in every EU country.

Although roads are managed primarily by national, regional or local authorities, the EU has adopted measures to improve the safety of the road network, in particular through its regional development funds, the European Investment Bank and the trans-European networks (TEN). Regarding the funds’ ex-ante conditionalities relating to transport, priorities pursued by the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) shall be consistent with the general priorities laid down in Article 10 of the TEN-T Guidelines, which cover safety. Directive 2004/54/EC on minimum safety requirements for tunnels in the Trans-European Road Network subjects all tunnels in the network over 500 metres in length to harmonised safety rules. Directive 2008/96/EC on road infrastructure safety management applies to roads which are part of the trans-European...
road network, whether they are at the design stage, under construction, or in operation. It requires the establishment and implementation of procedures relating to road safety impact assessments, road safety audits, the management of road network safety and safety inspections by the Member States. The directive also includes provisions regarding the safety ranking (in particular the ranking of high accident concentration road sections) and management of the road network in operation, as well as the appointment and training of road safety auditors.

The EU also tries to improve road safety through the promotion of Intelligent Transport Systems (ITS), which can contribute to a cleaner, safer and more efficient transport system. In 2008, the Commission presented an Action Plan for the deployment of Intelligent Transport Systems in Europe. Deriving from this, Directive 2010/40/EU aims to accelerate the deployment of innovative transport technologies and is an important instrument for the coordinated implementation of ITS in Europe. Priority areas and priority actions highlighted by the directive include ITS road safety and security applications; data and procedures for the provision, where possible, of road safety related minimum universal traffic information free of charge to users; and the harmonised provision of an interoperable EU-wide eCall system (see box).

A recent piece of legislation relating to road safety is Directive (EU) 2015/413 (or ‘CBE directive’), facilitating cross-border exchange of information on road safety related traffic offences. Replacing Directive 2011/82/EU, the objective of the directive remained the same (i.e. facilitating the cross-border exchange of information on road safety related traffic offences, thereby ending the right to anonymity for non-resident drivers and enabling prosecution for offences committed in a Member State other than that in which the vehicle is registered). Through an information exchange procedure between national points of contact, Member States may access each other’s national vehicle registration data. The Member State where the offence occurs shall decide whether or not to initiate follow-up proceedings in relation to the eight road-safety-related traffic offences listed in the directive which are: speeding; failing to use a seat-belt; failing to stop at a red traffic light; drink-driving; driving while under the influence of drugs; failing to wear a safety helmet; the use of a forbidden lane; illegally using a mobile telephone or any other communication devices while driving. The suspected offender could thus be informed of the details of the offence by standard letter. Member States had to transpose the directive by 6 May 2015. According to the CBE Directive the Commission is obliged to submit a report to the European Parliament and the Council on the application of the directive by 7 November 2016.

The acquis, either directly or indirectly, related to road safety is thus quite wide, embracing many other pieces of legislation such as driving licences, professional drivers’ training and working conditions, tachographs, speed limitation devices, vehicle type-approval, weights and dimensions, or data collection.
Overall strategies on road safety
The EU has adopted several strategies dedicated solely or partially to road safety.

In the 2001 Transport White paper, the Commission highlighted that the EU should set itself a target of halving the number of road victims by 2010, a target which was eventually endorsed by the European Parliament and the Transport Council in 2003.

In 2003, the Commission presented a third European road safety action programme 2003-2010 in support of the overall objective of halving the number of people killed on the roads by 2010. Recognising that such a target constituted a collective undertaking rather than a legal requirement, the Commission underlined that 'given that responsibilities for road safety are shared between different levels of government, it is not possible to rely solely on activities carried out by the European Union to achieve this target. The main aim is to provide the motivation for launching shared activities and to stimulate these activities at all levels of action'. The Commission proposed the establishment of a European Road Safety Observatory (ERSO) to coordinate all Community activities in the fields of road accident and injury data collection and analysis. The Commission also mentioned that the target will have to be monitored periodically and performance indicators established to target actions in key road safety areas and monitor implementation. Even though the target was not fully met, road fatalities decreased by 43 % between 2001 and 2010, a positive result considering that twelve new Member States joined the EU during that period.

In July 2010, the Commission adopted the communication 'Towards a European road safety area: policy orientations on road safety 2011-2020' which took account of the results obtained in the third road safety action programme (2003-2010). In order to achieve the objective of creating a common road safety area, the Commission proposed to continue with the target of halving the overall number of road deaths in the EU by 2020, starting from 2010, and identified seven objectives for the next decade:

- Improve education and training for road users;
- Increase enforcement of road rules;
- Safer road infrastructure;
- Safer vehicles;
- Promote the use of modern technology to increase road safety;
- Improve emergency of post-injury services;
- Protect vulnerable users.

The new orientations aim 'to provide a general governance framework and challenging objectives which should guide national and local strategies'. The Commission encouraged Member States to develop national road safety plans or strategies that should describe the means to achieve the common objective and could also include specific national objectives in accordance with their particular situation. As per the previous action programme, the policy orientations reassert the notion of shared responsibility in road safety, implying commitment and concrete actions at all levels.
The 2011 transport white paper set the goal of moving close to zero fatalities in road transport by 2050 and in line with this, the EU aim of halving road casualties by 2020.

**European day without a road death (EDWARD)**

The first EDWARD day took place in 31 countries on 21 September 2016 (during European Mobility Week). More than 103 000 organisations and individuals signed a road safety pledge on the website of the European Traffic Police Network (TISPOL) and over 80 road safety actions were organised across Europe. In addition, social media campaigns (#ProjectEDWARD and #seatbeltselfie) reached more than 19 million people.

**Outlook and next steps**

In June 2015, the Commission published a staff working document summarising the outcomes of the interim evaluation of the 2011-2020 policy orientations. Assessing whether the policy framework remained valid and progress towards the overall target satisfactory, the document concluded that the road safety policy framework is generally on the right track. It highlighted that the number of road fatalities decreased between 2010 and 2014, as well as the differences between Member States, and that the strongest improvements concerned young people below 25 years old and motorised users. However, the evaluation also underlined that improvement was much more limited for vulnerable (pedestrians and cyclists) and elderly (over 65) road users, and that the existing policy framework did not address the continued over-representation of men among road traffic victims. The interim evaluation also made a specific case concerning serious road injuries, highlighting that 'serious road traffic injuries are not decreasing as quickly as fatalities,' that the EU has no strategic target for the reduction of serious road traffic injuries' and that 'if a serious injury target would be set with the same level of ambition as the fatality target (a 50 % decrease between 2010 and 2020), the target level would be a 35 % decrease between 2015 and 2020'. As for the fatality target, achieving this would imply an annual average decrease of 7.8 % for the remainder of the strategy period, which is considered challenging, but not impossible.7 The absence of a target to reduce serious injury, expected to be set in 2015, gave rise to debate, and led stakeholders and the European Parliament (see next section) to reiterate their calls for having a target in place swiftly.

While pointing out that the road safety framework needed no major changes, the Commission mentioned areas where work should be completed:

- Continued work on serious injuries including monitoring of progress based notably on the new data reporting;
- Further efforts in the area of cooperative intelligent transport systems and advanced driver assistance systems;
- Efforts to increase the safety of vulnerable road users;
- Monitoring and encouraging the implementation and enforcement of road safety rules at Member State level.

The preparation of the next strategy period (beyond 2020) could include new actions to address the gender aspect of road safety and identify intermediary outcome objectives.

**Next steps**

On serious road injuries, the Commission organised a workshop with European umbrella organisations representing road user organisations, vehicle industry, road infrastructure managers, research institutes and other interest organisations in November 2015, to discuss the specific challenges of serious road traffic injuries. It also launched a study on
serious road traffic injuries in the EU, the results of which should be available by November 2016, and provided financial support for the SafetyCube research project under Horizon 2020 which aims to support the selection and implementation of strategies and measures to reduce casualties, in Europe and worldwide.

The Commission has undertaken a review of several pieces of legislation, such as Directive 2008/96/EC on road infrastructure safety management or the training requirements for professional drivers, to limit inconsistencies between the professional drivers directive and the legislation on driving licences, and to improve safety. Work on innovative initiatives which have a strong safety potential, such as connected and automated driving is under way, with the Commission preparing a Master Plan for the Deployment of C-ITS by mid-2016.8

European Parliament views

The Parliament has adopted numerous resolutions regarding or covering road safety. As early as in 2001, it underlined that 'no single death on the European roads can be justified and that therefore the long-term objective must be that no European citizens should be killed or seriously injured on the road transport system'. In its 2005 resolution on the third European road safety action programme, the Parliament called on the Commission 'to develop a long-term road safety concept, going beyond 2010 and describing the required steps leading to the avoidance of all fatalities and serious injuries caused by road accidents ('Vision Zero'). In its 2011 resolution on European road safety, Parliament endorsed the objective of halving the total number of road deaths in the EU by 2020 in comparison with 2010. It also went further, calling for additional and more detailed measurable targets to be met over the same period, in particular: a 60 % reduction in the number of children under the age of 14 killed in road accidents; a 50 % reduction in the number of pedestrians and cyclists killed in road collisions; and a 40 % reduction in the number of people suffering critical injuries, on the basis of a uniform EU definition to be developed rapidly. In a 2015 resolution on the implementation of the 2011 white paper on transport, Parliament reiterated its call for the adoption of a target of a 40 % reduction in the number of people seriously injured, accompanied by a fully-fledged EU strategy, and asked Member States to provide all relevant statistical data without delay. It also pushed for stronger action on the main causes of deaths and injuries, in particular driving under the influence of alcohol and drugs, excessive speed and not wearing seatbelts, and actions to reduce accidents for vulnerable users. Parliament called for road safety measures within the upcoming road package and a mid-term review of the Commission’s road safety programme 2011-2020.

Regarding specific legislation, the European Parliament calls for a review of the directive facilitating cross-border exchange of information on road-safety-related traffic offences, and to extend its application to the EU's neighbours. Within the revision of the directive on road infrastructure safety management, Parliament seeks extension of the four main measures to all sections of motorways, rural and urban roads. The EP also calls for a review of professional driver training and qualification and asks for a proposal on reviewing the general safety regulation and the pedestrian protection regulation by 2016, to establish mandatory rules for heavy goods vehicle (HGV) cab design and safety, direct vision, crash performance and pedestrian protection; prioritising vulnerable road users. Parliament also called for a review of the third driving licence directive, and a harmonised EU blood alcohol concentration limit of 0.0 for new drivers in the first two years and for
professional drivers. Additionally, Parliament seeks greater application of driver assistance safety systems in new passenger cars and commercial vehicles.

**Main references**

European Commission road safety website.


**Endnotes**

1. Article 10 of the TEN-T Guidelines mentions that, in the development of the comprehensive network, general priority shall be given to measures that are necessary, notably for improving or maintaining the quality of infrastructure in terms of safety (...). In view of this, the Commission, in a document explaining ex ante conditionalities relating to transport, considers that ‘comprehensive transport plan(s)/framework(s) should set out the contribution to the single European Transport Area consistent with Article 10 (...), including priorities for investments in the core TEN-T network and the comprehensive network where investment from the ERDF and CF is envisaged; and secondary connectivity’.

2. In Directive 2010/40/EU, Intelligent Transport Systems or ‘ITS’ are defined as ‘systems in which information and communication technologies are applied in the field of road transport, including infrastructure, vehicles and users, and in traffic management and mobility management, as well as for interfaces with other modes of transport’.

3. Directive 2011/82/EU was challenged by the Commission in the Court of Justice of the European Union on the grounds that the EP and Council had chosen the wrong legal basis (Article 87(2) TFEU on police cooperation). The Court annulled Directive 2011/82/EU, but maintained its effects until the entry into force of a new directive based on the correct legal basis (Article 91(1)(c) TFEU), considering that the measures do not concern ‘prevention of crime’, as defined under police cooperation rules, but rather road safety, which is a transport issue.


5. The Commission publishes Member States’ formal strategic documents, laying out their goals and plans in terms of road safety, on its website.

6. Based on an old reporting system, the interim evaluation report states that the number of serious injuries on the roads per year is substantial, with eight to nine people reported as seriously injured for every reported road death.

7. According a more recent publication (June 2016) from the European Transport Safety Council (a Brussels-based independent non-profit making organisation dedicated to reducing the numbers of deaths and injuries in transport in Europe), the relatively bad preliminary results from 2015 imply that a 9.7 % reduction of road deaths each year is needed between 2016 and 2020 to meet the target.

8. According to the Commission, Connected Driving (or C-ITS) is the term used to describe the technology which enables vehicles to be connected to other vehicles, to the infrastructure and other part of the transport network. This implies that all parts of the transport share an increasing volume of information and can thus improve both road safety, through avoiding collisions, and traffic management. The concept of connected and automated driving are viewed as intimately linked.

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