

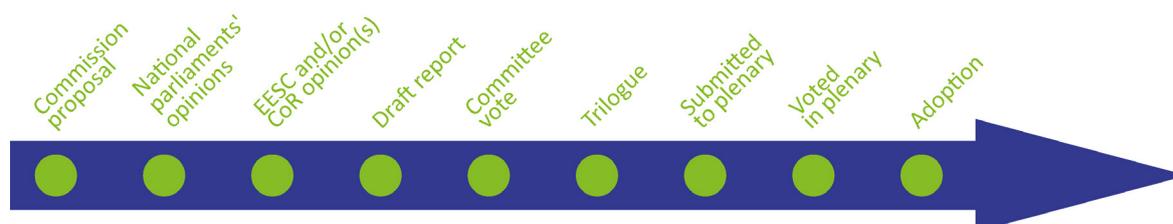
# General safety of vehicles and protection of vulnerable road users

## OVERVIEW

As part of the third 'Europe on the move' package of measures, on 27 May 2018, the European Commission presented a proposal for a regulation on type-approval requirements for motor vehicles and their trailers, as regards their general safety and the protection of vehicle occupants and vulnerable road users. The regulation is part of the EU's efforts to halve the number of fatal and serious injuries in road crashes between 2020 and 2030. It will introduce a number of advanced vehicle safety features that passenger cars, vans, buses and trucks will have to have as standard equipment in order to be sold on the internal market. These include intelligent speed assistance, alcohol interlock installation facilitation, driver drowsiness and attention warning, emergency stop signal, reversing detection and event data recorder. Additional requirements will apply to specific vehicle groups, such as vulnerable road user detection for buses and trucks. The new regulation, adopted by the co-legislators in 2019 and signed on 27 November 2019, will replace three current type-approval regulations as of July 2022: the General Vehicle Safety Regulation, the Pedestrian Protection Regulation and the Hydrogen-powered Motor Vehicles Regulation.

**Proposal for a regulation of the European Parliament and of the Council on type-approval requirements for motor vehicles and their trailers, and systems, components and separate technical units intended for such vehicles, as regards their general safety and the protection of vehicle occupants and vulnerable road users, amending Regulation (EU) 2018/... and repealing Regulations (EC) No 78/2009, (EC) No 79/2009 and (EC) No 661/2009**

<i>Committee responsible:</i>	Internal Market and Consumer Protection (IMCO)	COM(2018) 286 17.5.2018
<i>Rapporteur:</i>	Róża Gräfin von Thun und Hohenstein (EPP, Poland)	2018/0145 (COD)
<i>Shadow rapporteurs:</i>	Olga Sehnalová (S&D, Czech Republic) Daniel Dalton (ECR, United Kingdom) Dita Charanzová (ALDE, Czech Republic) Pascal Durand (Greens/EFA, France)	Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')
<i>Procedure completed.</i>	Regulation (EU) 2019/2144 <a href="#">OJ L 325, 16.12.2019, pp. 1-40.</a>	



## Introduction

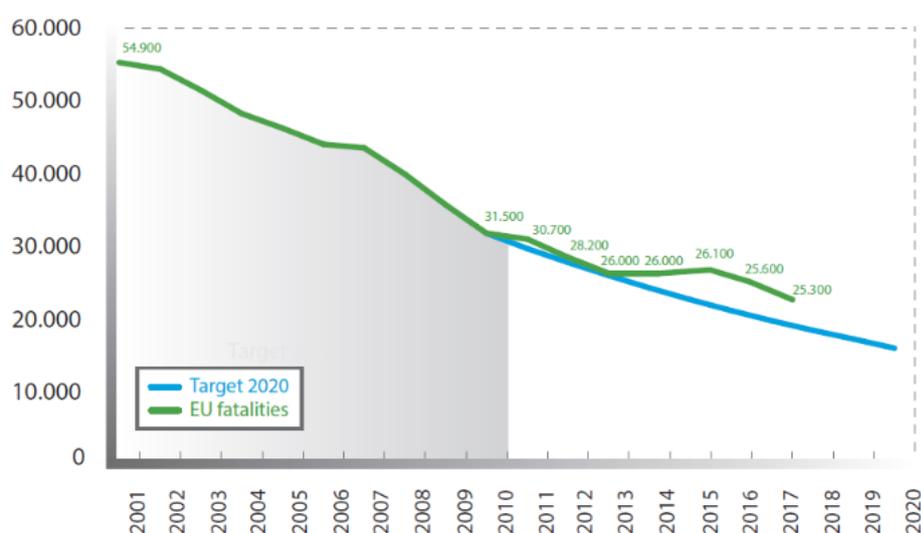
On 17 May 2018, the European Commission presented a [proposal](#) for a regulation on type-approval requirements for motor vehicles and their trailers, as regards their general safety and the protection of vehicle occupants and vulnerable road users. The proposed regulation is part of the third 'Europe on the move' package, a final set of measures following the 2016 [strategy](#) for low-emission mobility. The proposed regulation would introduce a number of advanced safety features that vehicles would need to have in order to be sold on the internal market. The proposal was presented as part of a new 'safe mobility framework' that also includes a [proposal](#) for a revised directive for road infrastructure safety management and a strategic [action plan](#) on road safety (presented on the same day as the proposal). These are expected to contribute to reaching the EU interim target of halving the number of fatal and serious road injuries between 2020 and 2030, and to moving to close-to-zero fatalities by 2050 (known as [Vision Zero](#)).

## Context

In 2017, 25 300 people were [killed](#) on EU roads, with a further 135 000 estimated to have been seriously injured. About 55 % of road fatalities occurred on rural roads, 37 % in urban areas and 8 % on motorways. Car occupants accounted for 46 % of the victims, and an equal number were vulnerable road users (21 % pedestrians, 14 % motorcyclists, 8 % cyclists and 3 % moped riders).

Still, with an average of 49 fatalities per million inhabitants, European roads are the safest in the world (the global average being 174 deaths per million).<sup>1</sup> The number of road fatalities has [decreased significantly](#) from 76 000 in 1991. Furthermore, since 2009, road crashes have no longer been the [main cause of death](#) in the EU. However, the EU strategic objective to halve the number of fatalities between 2010 and 2020 suffered a setback from 2013 to 2015, when the number of deaths on EU roads stalled at around 26 000. This number then fell by 2 % in 2016 and by a further 2 % in 2017. The Commission now estimates that due to expected developments, such as an increase in traffic volumes, especially in the number of cyclists and pedestrians, an ageing population and an increase in driver distractions such as use of electronic devices while driving, it will be difficult for the current legislative framework to help lower the death toll further without any new initiatives.

Graph 1 – EU fatalities and targets 2001-2020



Source: [European Commission](#), UNECE.

To increase road safety, the EU traditionally follows a safe system approach, in which a degree of human error and inappropriate behaviour are considered inevitable, but crashes, and especially fatal and serious injuries, are considered preventable. Vehicles are one part of this system, the

remaining two being infrastructure and road users. All parts need to be improved, so that if one fails, the others can act as a buffer and all road users can be protected.<sup>2</sup>

The safety features of vehicles are governed by EU type-approval legislation, which lays down administrative and technical requirements that new vehicle models and new vehicles must meet in order to be sold on the internal market. Further legislation deals with vehicle-testing regimes assessing vehicle roadworthiness.<sup>3</sup>

## Existing situation

The general principles for the type-approval of vehicles in the EU were set by the 2007 [Framework Directive](#) on type-approval of motor vehicles, which lays down administrative and general technical conditions for placing on the market and registration of new vehicles and their components. Among other things, it defines vehicle categories M (for carriage of persons), N (for carriage of goods) and O (trailers), and their subcategories. This directive will be replaced by a new [regulation](#) on the approval and market surveillance of motor vehicles, which was adopted in May 2018 and will come into effect in September 2020. The new regulation is expected to strengthen the market surveillance of vehicles on the internal market, improve the quality of testing and introduce EU oversight of the type-approval process.<sup>4</sup> Specific requirements related to vehicle safety are currently contained in three further type-approval regulations.

The 2009 [General Safety Regulation](#) lays down the requirements covering all aspects related to a vehicle's safety, such as its stability control system, braking performance, crashworthiness, safety belts, child seat safety, lighting installation, fuel system, fire safety, etc. It also includes some environment-related aspects, such as the requirement to make tyres more energy efficient and less noisy. Most of these requirements became applicable to new types of vehicles as of November 2012, and for all new vehicles sold and registered in the EU from November 2014, although some have yet to take effect.<sup>5</sup> The regulation defines unprotected road users as 'pedestrians, cyclists and motorcyclists'. At the time, it added new technologies and safety features as standard equipment for vehicles and simplified the legislative framework by repealing 50 older directives and replacing them, primarily by regulations of the United Nations Economic Commission for Europe (UNECE).

The 2009 [Pedestrian Safety Regulation](#) lays down requirements for the construction and functioning of motor vehicles and their frontal protection systems (such as bumpers), in order to avoid collisions of vehicles with pedestrians and other vulnerable users, and to reduce the number and severity of their injuries. It covers cars, vans and other light commercial vehicles, and requires them to have energy-absorbing bonnets and front bumpers, as well as 'brake assist system' (BAS). Most of these requirements are already in effect.

The 2007 [Hydrogen-Powered Motor Vehicles Regulation](#) establishes requirements for the type-approval of motor vehicles with regard to hydrogen propulsion and for the type-approval of hydrogen components and hydrogen systems. Manufacturers have to ensure that hydrogen components and systems are protected against excessively high pressures, and can withstand electrical, mechanical, thermal and chemical conditions.

Additionally, the 2015 [e-Call Regulation](#) requires all new vehicle types to be fitted, as of March 2018, with an eCall system that automatically dials the EU single emergency number 112 in the event of a serious road accident, and communicates the vehicle's location.

The EU does not currently have legislation laying down requirements for type-approval of automated and connected motor vehicles.

## Parliament's starting position

In a September 2015 [own-initiative resolution](#), the European Parliament called on the Commission to present a proposal to review the General Safety Regulation and the Pedestrian Protection Regulation by 2016, in order to establish mandatory rules for heavy goods vehicles' cab design and

safety, direct vision, crash performance and pedestrian protection, prioritising vulnerable road users. It also called for greater application of driver-assistance safety systems, such as automated emergency braking, distance warning, lane-departure warning, tyre-wear indicators and overridable intelligent speed adaptation.

In an [own-initiative resolution](#) of 14 November 2017, Parliament urged the Commission to include in its new road safety strategy for the 2020-2030 period, new targets for halving the number of serious injuries on the roads in the EU. It called for making a large number of advanced safety features compulsory, including automatic emergency-braking assistance with detection of vulnerable road users, safer front-end design of heavy-goods vehicles with better vision of pedestrians and cyclists, over-ridable intelligent speed assistance system and lane-keeping assistance, direct vision standards for heavy goods vehicles, buses and coaches, an intelligent seatbelt reminder system for the front seats of all vehicles and for the rear seats of passenger cars and vans, and an automated seatbelt adjustment system to avoid neck damage, etc. It also called for incentives for retrofitting existing vehicles with cost-effective safety systems.

In an [own-initiative resolution](#) of 13 March 2018 on a European strategy on cooperative intelligent transport systems, Parliament noted that cooperative, connected and automated vehicles can contribute to the safety of EU transport, but that during the transition phase of coexistence between connected and automated vehicles on the one hand, and traditional non-connected vehicles on the other, it will be necessary to install certain driver-assistance systems on all vehicles on a compulsory basis. It also warned of the need to develop a common security policy, including strict security standards, to tackle the risk of cyber attacks on automated and connected vehicles.

## Preparation of the proposal

Between July 2014 and November 2016, the Commission held targeted consultations with private and public stakeholders, mostly within the framework of the working group on motor vehicles, the Commission's expert group that includes public and private stakeholders. In March 2015, the Commission published a [study](#) on the benefit and feasibility of a range of new technologies and unregulated measures in the field of vehicle occupant safety and protection of vulnerable users, with an overview of more than 50 available safety measures. In December 2016, it published a [report](#) on Saving lives: Boosting car safety in the EU, which included 19 potential measures that the Commission considered for the legislative proposal. In February 2016, these were presented to the working group. In November 2016, additional intensive stakeholder consultations took place with scholars and research organisations, safety advocacy groups, vehicle manufacturers, vehicle supplier industry, local and national governments and other experts.

The Commission held a [public consultation](#) on the proposal between 31 July 2017 and 22 October 2017 and received 118 replies – 15 from public authorities, 48 from companies and organisations and 55 from road users. According to the consultation [synopsis report](#), almost nine out of ten respondents, including eight out of ten public authorities, supported the mandatory introduction of new vehicle safety features and requirements in EU legislation. Three out of ten stakeholders said their preferred method to address road accidents at EU level was the introduction of new vehicle safety features – with autonomous emergency braking, pedestrian and cyclist forward detection, intelligent speed assistance and lane-keeping assistance named as top priority among 19 potential measures. This was followed by making improvements to road infrastructure, offering safety-related driver training and raising driver awareness.

The [impact assessment](#) (IA) accompanying the proposal considered three policy options: 1) mandating safety features for which technology is mature; 2) in addition to mature technologies, mandating safety features that are currently less common and need more time to fully mature; and 3) in addition to the scenario under option 2, introducing additional safety solutions that are feasible and are already present on the market, but are rarely fitted to vehicles and have low market uptake. The preferred choice was option 3, as it was estimated that it would prevent the highest number of

fatalities and severe injuries at an overall acceptable cost. It is expected that over 16 years, this option would help reduce fatalities by almost 25 000 and serious injuries by over 140 000, with a value benefit of €72.8 billion. The anticipated total cost is €57.4 billion.

The European Parliamentary Research Service has published an [initial appraisal](#) of the Commission's impact assessment. It concluded that, while the IA provides a thorough definition of the problem and presents mandatory measures to tackle them, 'their factual relevance for the general objective of reducing road casualties remains uncertain, as their individual effects are not assessed'.

## The changes the proposal would bring

The Commission's [proposal](#) would consolidate the provisions of three current regulations – the General Safety of Motor Vehicles Regulation, the Pedestrian Safety Regulation and the Hydrogen-Powered Motor Vehicles Regulation – into one text. It would remove exemptions on frontal and side crash tests for SUVs and vans contained in the current General Safety Regulation.<sup>6</sup>

As is currently the case, manufacturers would be required to ensure that all new types of vehicles and systems, components and separate technical units adhere to the requirements of the proposed regulation, and that they are designed to minimise the risk of injury to vehicle occupants and to vulnerable road users (these are defined as drivers of two-wheeled powered vehicles and non-motorised road users, such as cyclists or pedestrians).<sup>7</sup>

Seven new vehicle safety features would be introduced as standard equipment for all vehicles in categories M, N and O (most will be required for newly approved types three years after the entry into force of the proposed regulation, and five years after entry into force for all new vehicles):

- a tyre pressure monitoring system, which can evaluate the pressure of the tyres or the variation of pressure over time and transmit corresponding information to the user while the vehicle is running. This requirement already exists for passenger cars, but would now be extended to all types of vehicles;
- intelligent speed-assistance system, which would (based on observation of road signs, signals and markings or via electronic map data) alert the driver of exceeding the speed limit by providing haptic feedback through the accelerator pedal;
- driver drowsiness and attention monitoring, which would alert the driver if, through vehicle system analysis, it assesses the driver's alertness as being insufficient;
- advanced distraction recognition, which would assess the level of the driver's visual attention to the traffic situation. It would become mandatory at a later stage and may cover the requirement to monitor the driver's drowsiness and attention;
- a reversing detection system, to help avoid collisions with people and objects behind the vehicle by making the driver aware of them with the help of a camera or a monitor;
- an emergency stop signal, which would activate rapidly flashing stop lamps to indicate to other road users behind the vehicle that the driver is suddenly braking;
- alcohol interlock installation facilitation, which would enable motor vehicles to be fitted with an alcohol interlock device using a standardised interface.

Advanced safety features would become compulsory for passenger cars and light commercial vehicles:

- an advanced emergency braking system that would automatically detect a potential collision and activate the braking system. In the first phase, it would be able to detect moving vehicles and stationary obstacles ahead of the vehicle, and in a later phase, it would also be able to detect vulnerable road users ahead of the vehicle;
- a lane-keeping system that would turn the steering wheel or apply pressure to the brakes when a lane departure occurs or is about to occur and a collision may be imminent. It would be possible to switch both of these systems off, but only by a complex sequence of actions. Each time the vehicle is turned off, the systems would be automatically switched back on again;

- an event (accident) data recorder that would record and store critical crash-related parameters and information such as speed and the functioning of safety systems before, during and after a collision;
- an enlarged head-impact protection zone that would protect vulnerable road users and mitigate their potential injuries in the case of an accident.

The proposed regulation also introduces additional types of crash tests for passenger cars and light commercial vehicles.

New requirements are also proposed for buses, coaches and trucks. These are in addition to the lane-departure warning system and the advanced emergency-braking system, both of which are already compulsory under the existing General Safety Regulation from 2009:

- advanced systems capable of detecting vulnerable road users located in close proximity to the front or nearside of the vehicle and providing a warning or avoiding collision. The proposal does not suggest that advanced emergency braking systems for trucks and buses be modified to brake autonomously when they detect vulnerable road users. The Commission says that accident analysis shows that the risk that a bus or a truck will run over a pedestrian or a cyclist in the 'blind zone' is when the vehicle is moving very slowly or is only starting to move – and that no systems available today can effectively prevent this kind of accident;
- cabin design with direct vision that would enable the driver to see vulnerable road users directly from the driver's seat without using mirrors or cameras. This feature would have a long phase-in period and would become mandatory for approval of new types of vehicles seven years after the regulation enters into force, and 10 years after its entry into force for all new vehicles.

The proposed regulation would introduce special requirements for hydrogen-powered vehicles, in addition to those applicable to general vehicle categories. These requirements relate mainly to the standards for materials and components used in these vehicles, as well as to test procedures.

The proposed regulation provides a list of areas for which technical requirements would be laid down in Commission delegated acts, which can be vetoed by the Parliament or the Council. These specific requirements relate to systems to replace the driver's control of the vehicle; systems to provide the vehicle with real-time information on the state of the vehicle and the surrounding area; driver-readiness monitoring systems (which assess whether the driver is in a position to take over the driving function); event (accident) data recorders for automated vehicles; a harmonised format for the exchange of data, for instance, for multi-make vehicle platooning.<sup>8</sup>

The proposal would also empower the Commission to adopt delegated acts in order to lay down detailed rules on procedures, tests and technical requirements for type-approval, as well as to update the annexes that list the UNECE regulations and applicable requirements, so that they reflect technical progress and regulatory developments.

The regulation would enter into force 20 days after its publication in the Official Journal and would apply from 36 months later. Deadlines for the application of various requirements to approval of new types of vehicles and to registration and placement on the market of new vehicles are listed in Annex II.

## Advisory committees

The European Economic and Social Committee (EESC) adopted its [opinion](#) on 19 September 2018 (rapporteur Raymond Hencks, Workers - Group II, Luxembourg). In addition to the advanced safety features proposed by the Commission, the EESC recommends that all vehicles should be fitted with an alcohol interlock and not merely with an interlock installation facilitation; that accident data recorders should be required for lorries, trucks and buses as well; and that mandatory requirements should be adapted to technological developments within shorter deadlines.

## National parliaments

The [deadline](#) for the submission of reasoned opinions on the grounds of subsidiarity was 25 July 2018. No reasoned opinions were delivered by national parliaments.

## Stakeholders' views<sup>9</sup>

The European Automobile Manufacturers' Association ([ACEA](#)) welcomes the proposal, especially as concerns the additional safety features in new car types such as autonomous emergency-braking systems and lane-departure warning systems. ACEA warns against 'solving the same problem twice', as it argues that autonomous emergency-braking and lane-departure warning can also reduce accidents due to driver distractions and prevent or reduce the severity of frontal and side crashes. It is also cautious regarding intelligent speed-assistance systems in cars and warns that they require harmonised road signs and well-maintained roads.

The European Transport Safety Council ([ETSC](#)) supports the Commission's proposal, especially the introduction of intelligent speed assistance and automated emergency braking, claiming they have 'the most potential to reduce death and injury'. It says that although such systems are widely available on the market, the proposed regulation is needed to extend these benefits to all new vehicles as standard equipment.

The European Cyclists' Federation ([ECF](#)) calls the proposal 'a revolutionary moment in European road safety' and welcomes taking cyclists into account in vehicle design. It calls on the co-legislators to add automatic braking as a requirement for trucks. The ECF in general supports all the proposed measures, but highlights the introduction of intelligent speed assistance, autonomous emergency braking, improved design of front-end and the right-turning-assist warning device in lorries, which helps drivers to detect cyclists in their blind spots.

The Fédération Internationale de l'Automobile (FIA), the consumer body representing motor clubs, published one [response](#) on the revision of the General Safety Regulation and a separate [response](#) on the revision of the Pedestrian Protection Regulation. It calls for crash tests to cover more of the car surface and at an increased speed, in line with research on the types of crashes that cause injuries. It is also in favour of mandatory introduction of automatic emergency braking, a lane-keeping assistance system in passenger cars, seat-belt reminders for all seats in passenger cars and light commercial vehicles, and improved rear under-run protection of heavy-duty vehicles.

The European Association of Automotive Suppliers, [CLEPA](#), called on the Parliament and the Council to adopt the proposal swiftly. It said that, in addition to increasing safety, the proposed standards would 'help the European automotive industry to maintain their global lead in safety technology and contribute to generate growth, jobs and investment in the European Union'.

## Legislative process

The Council's working party on technical harmonisation (motor vehicles) started examining the proposal in May 2018. On 29 November, the Competitiveness Council adopted a [general approach](#).

According to the general approach:

- the definition of vulnerable road users would include two- or three-wheel powered vehicles or non-motorised road users, such as a cyclist or pedestrian;
- the definitions of some of the new security systems and features would be changed to ensure technological neutrality. For instance, the intelligent speed assistance (ISA) would need to provide 'dedicated and appropriate feedback', but not by 'haptic feedback through the accelerator pedal', while the emergency lane-keeping system would be required to assist the driver in keeping the vehicle in a safe position, without necessarily applying 'a torque to the steering wheel, or pressure to the brakes';

- in line with the Commission's proposal, drivers would not be able to switch off the intelligent speed assistance, but could still decide to drive over the speed limit;
- the advanced emergency braking system, required for passenger cars and vans, would, in the second phase, have to be able to detect pedestrians and cyclists only, but not all vulnerable road users. The same would apply to the advanced detection systems required for buses and trucks;
- the event data recorder would be required to record the data with adequate accuracy and ensured survivability. National authorities would be allowed to use the data from the accident data recorder only for the purposes of accident data analysis;
- the deadlines for the application of certain requirements would be changed: rear impact tests, and pedestrian and cyclist enlarged head impact zone would be postponed, whereas the requirement for cars to have windscreens with 'forward field of vision', enabling drivers to better see their surroundings, would be brought forward;
- rules concerning test procedures and technical requirements for new systems would be laid down by implementing (and not delegated) acts. Whenever Annex II, which lists the applicable vehicle requirements and deadlines for their application, needs to be updated to account for technical progress and regulatory developments, this would be done by delegated acts;
- every five years, the Commission would be required to prepare an evaluation report on the achievements of safety measures and systems, including their penetration rates. The first report would be due eight years after the regulation enters into force.

In the Parliament, the file was attributed to the Committee on the Internal Market and Consumer Protection (IMCO) in May 2018. The rapporteur, Róża Gräfin von Thun und Hohenstein (EPP, Poland), put forward her [draft report](#) on 15 November 2018. IMCO adopted its [report](#) on 21 February 2019, as well as a decision to enter interinstitutional negotiations.

Among other things, the report proposed the following changes:

- the definition of a vulnerable road user would be changed to 'one or multiple-wheel powered vehicle without protective bodywork or a non-motorised road user, such as a cyclist or a pedestrian', to include segways, scooters, wheelchairs and electric bikes;
- the definitions of some of the new security systems and features would also be changed to ensure technological neutrality. Similar to the Council's proposal, the intelligent speed assistance would not be required to provide haptic, but appropriate, feedback, 'through the accelerator control, or through other means sufficiently effective', while the emergency lane-keeping system would not need to apply a 'torque' to the steering wheel, as long as it assists the driver in keeping the vehicle in a safe position with respect to the lane;
- manufacturers would have to ensure that the new systems and features are developed in a way that ensures acceptance of these systems by the user, and therefore the likelihood of these systems being used in practice;
- the Commission would be empowered to lay down rules on type-approval of tyres, including in worn condition;
- accident data recorders would be required for all categories of motor vehicles, not just for cars and vans. Vehicles would also need to have protection against cyber-attacks;
- in contrast to the Commission's proposals, drivers would be able to switch off the intelligent speed assistance system, but the system would return to normal operation each time the vehicle is turned back on;
- drivers would also be able to over-ride the advanced emergency braking system and emergency lane-keeping system on cars and vans, as well as lane departure warning system, advanced emergency braking system and advanced systems capable of detecting vulnerable road users on buses and trucks;

- all categories of vehicles would be required to be equipped with both a driver drowsiness and attention warning system and, at a later phase, advanced driver distraction warning (the Commission's proposal would consider that vehicles could have only the advanced system installed). The two systems should, however, not issue simultaneous warnings to the driver. The report would also require these systems to keep their data within closed loop systems, not allow access to third parties and delete the data immediately after processing;
- the privacy protection for the operation of the accident data recorder would also be strengthened. It would also be required to operate on a closed-loop system, anonymise the data and protect it against manipulation. The national authorities would be allowed to access the data only for the purpose of accident research and analysis;
- infringements of the regulation would be punishable by penalties in line with Article 84 of the [Regulation](#) on the approval and market surveillance of motor vehicles, which requires Member States to lay down rules on effective, proportionate and dissuasive penalties applicable to infringements;
- the requirement for cars and vans to have forward vision would be brought forward, while the Commission would be required to adopt a delegated act on direct vision requirements for heavy-duty vehicles. The whole regulation would apply at least a year and a half earlier than proposed by the Commission;
- every three years, the Commission would be required to report to the Parliament and Council on the achievements of safety measures, including the penetration rate of the required systems. The first report would be due five years after the entry into force of the regulation.

The first round of interinstitutional negotiations between Parliament and Council took place on 14 March 2019. The co-legislators reached a provisional agreement at the second trilogue meeting, on 25 March. The Council's Permanent Representatives Committee (Coreper) approved the provisional agreement on 29 March 2019. The IMCO committee approved it on 2 April. Parliament adopted it as its first-reading position on 16 April 2019. Because of the tight timeline for finalisation before the end of the parliamentary term, linguistic corrections to the voted text were needed. This file was therefore subject to a corrigendum procedure. The corrigendum was approved by the Parliament on 10 October 2019, and the Council then adopted the text at first reading on 8 November. The final act was signed on 27 November 2019 and was published in the Official Journal as [Regulation \(EU\) 2019/2144](#). It applies in full as of 6 July 2022.

According to the new regulation:

- vulnerable road users will be defined as 'non-motorised road users, including, in particular, cyclists and pedestrians, as well as users of powered two-wheelers';
- the definitions of a number of safety systems will be slightly altered. Parliament and Council agreed on the definition changes for many of these systems to begin with, while the largest disagreement was over the definition of the intelligent speed assistance, which will be defined simply as 'a system to aid the driver in maintaining the appropriate speed for the road environment by providing dedicated and appropriate feedback';
- all vehicles will have to be equipped with an event data recorder, as requested by Parliament;
- also in line with Parliament's position, vehicles will be required to have both a driver drowsiness and attention warning system and, at a later stage, an advanced driver distraction warning system;
- drivers will be able to over-ride some of these systems (e.g. the intelligent speed assistance, advanced emergency braking, emergency lane-keeping system and detection of obstacles, moving vehicles and pedestrians and cyclists), also in line with Parliament's request;

- privacy requirements for the event data recorder and driver distraction warning system will be strengthened compared to the Commission's proposal;
- the advanced emergency braking system required for passenger cars and vans, and the advanced detection systems, required for buses and trucks, will have to be able to detect pedestrians and cyclists only, but not other vulnerable road users;
- by July 2027, and every five years thereafter, the Commission will be required to report on the evaluation of the regulation to the Parliament and Council.

## EP SUPPORTING ANALYSIS

E. Kramer, [Type-approval requirements for the general safety of vehicles](#), Initial appraisal of the Commission's Impact Assessment, EPRS, September 2018.

D. Bourguignon, [Motor vehicles: New approval and market surveillance rules](#), EPRS, 5 July 2018.

A. Debyser, [Road safety in the EU](#), EPRS, November 2016.

S. Pillath, [Automated vehicles in the EU](#), EPRS, January 2016.

[The impact of higher or lower weight and volume of cars on road safety, particularly for vulnerable users](#), Study for the TRAN Committee, Policy Department for Structural and Cohesion Policies, European Parliament, 2015.

## OTHER SOURCES

[Type-approval requirements for motor vehicles and their trailers, and systems, components and separate technical units: general safety and the protection of vehicle occupants and vulnerable road users, European Parliament](#), Legislative Observatory (OeIL).

## ENDNOTES

- <sup>1</sup> Although the differences between Member States are diminishing, the gap is still large. Sweden has 25 fatalities per million inhabitants, the United Kingdom 27 and the Netherlands 31, while Romania has 98, Bulgaria 96 and Croatia 80.
- <sup>2</sup> The Commission [quotes](#) experts as saying that 95 % of road accidents involve some level of human error, while it is estimated that 75 % are caused by human error alone, with excessive speed, distraction and drunk-driving as some of the leading causes.
- <sup>3</sup> For a more general overview, see the EPRS [briefing](#) on Road safety in the EU and the EP [factsheet](#) on road traffic and safety provisions.
- <sup>4</sup> For more on the new regulation and on the functioning of type-approval procedures, see the EPRS [briefing](#) on Motor vehicles: New approval and market surveillance rules.
- <sup>5</sup> For instance, the regulation required all buses and trucks to be fitted with advance emergency braking (which can automatically detect an emergency situation and activate the vehicle braking system) and a lane-departure warning system (which alerts the driver of an unintentional drift out of the travel lane) from November 2015; the protection of occupants in truck cabs in case of a crash will be mandatory for all new trucks sold in the EU from 2021 onwards, and some requirements on tyre safety, noise and rolling resistance will be phased in by May 2023.
- <sup>6</sup> These exemptions from the frontal crash testing were introduced in 1996, partly because of the low market availability of such vehicles, difficulties to comply, and because of fears that it would make them dangerous for small older cars in collisions.
- <sup>7</sup> A number of directives and regulations mention either 'pedestrians and other vulnerable road users' or 'vulnerable users, such as pedestrians, cyclists and motorcyclists', but the only current definition of vulnerable road users comes from the [ITS Directive](#), which defines them as 'non-motorised road users, such as pedestrians and cyclists as well as motor-cyclists and persons with disabilities or reduced mobility and orientation'.
- <sup>8</sup> Platooning allows coupling of several vehicles in a convoy where they drive at a close set distance and automatically and simultaneously accelerate or brake.
- <sup>9</sup> This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under 'EP supporting analysis'.

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