European Transport Safety Council

Position Paper: Roadworthiness of vehicles

Proposed updates to Directive 2014/45/EC on Periodic Roadworthiness tests and Directive 2014/47/EC on technical roadside inspections of commercial vehicles

June 2025

Background

The European Commission announced an update to rules for mandatory motor vehicle technical inspections in the European Union in April 2025[1]. The roadworthiness package was last revised in 2014 and consists of Directive 2014/45/EC on Periodic Roadworthiness tests, Directive 2014/47/EC on technical roadside inspections of commercial vehicles as well as Directive 2014/46/EC on registration documents.

Both national and European laws require motorists to keep their vehicles in a roadworthy condition. However, not all vehicle owners do so, and roadworthiness testing exists so that a vehicle's original design and manufacture are retained in service.

The main objective of the legislation is to enhance road safety and contribute to both the long-term 'vision zero' objective and also to the targets of reducing road deaths and serious injuries by 50% in 2030. According to the European Commission's impact assessment the revision of the package will save lives and reduce injuries on EU roads: between 2026 and 2050, it is estimated that around 7,000 deaths will be prevented, and around 65,000 serious injuries will be avoided[2]. There is a clear correlation between the severity of collisions and factors such as vehicle age, mileage, and the lack of technical checks on older vehicles.

Since 2014 both cars and in-vehicle safety systems that are electronically controlled have continued to develop rapidly and preparations are well underway for automation. There is an immediate need for vehicle examiners to test new in-vehicle technologies mandated under the EU General Safety Regulation 2019/2114 (GSR) such as Automated Emergency Braking systems that have been mandatory on new types of car since 2022.

[1] Commission Proposal for a Directive of the European Parliament and of the Council amending Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers, Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union, and Directive 1999/37/EC on the registration documents for vehicles https://tinyurl.com/5n8babjh

[2] EC Staff Working Document Impact Assessment Report Accompanying the document Proposal for a Directive of the European Parliament and of the Council amending Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers, Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union, and Directive 1999/37/EC on the registration documents for vehicles https://tinyurl.com/mr3kydu6

Periodic Roadworthiness Directive 2014/45

Frequency of testing

Under current legislation passenger cars (M1) and light commercial vehicles (N1) must be tested four years after their first registration date, and every two years thereafter. Member States can require earlier and/or more frequent checks as they see fit.

The Commission has proposed to introduce annual checks for M1 vehicles after ten years.[3] Currently, most Member States already require annual tests for cars and vans over ten years old with some requiring them after just three or four years. In the other 11 Member States, the introduction of annual testing of cars and vans would lead to a reduction in deaths and injuries. Almost 1850 deaths could be prevented and 21,400 severe injuries as well as 120,500 slight injuries could be avoided over 25 years, which translates to 74 deaths, 850 severe injuries and 4,800 slight injuries avoided annually).[4]

In all EU Member States Heavy Duty Vehicles (HDVs) are tested annually from the first year of use.

The average age of a car in the EU is now 12.3 years old. Greece and Estonia have the oldest car fleets, with vehicles averaging 17 years old.[5] With older vehicles making up a larger part of the fleet, regular technical inspections take on an ever-greater importance for ensuring safety, as noted by a recent European Court of Auditors report on road safety.[6]

ETSC Recommendation [7]

- Test passenger cars and light commercial vehicles four years after their first registration date, then again after two more years then every year thereafter.

[3] Commission Proposal for a Directive of the European Parliament and of the Council amending Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers, Directive 2014/47/EU on the technical roadside inspection of the roadworthiness of commercial vehicles circulating in the Union, and Directive 1999/37/EC on the registration documents for vehicles https://tinyurl.com/5n8babjh

[4] European Commission Roadworthiness package Staff Working Document Impact Assessment Report on the revision of the Directives of the Roadworthiness package P. 183 https://tinyurl.com/mr3kydu6

[5] For the most recent report on age of the vehicle fleet see https://tinyurl.com/32urh5pd

[6] European Court of Auditors (2024) Special Report on Reaching EU Road Safety Objectives: Time to Move up a Gear https://tinyurl.com/3ssn6n9h

[7] Auto- und Reiseclub Deutschland (ARCD) does not support this recommendation.

M1-category vehicles used as taxis or ambulances; buses and coaches (M2, M3); heavier commercial vehicles (N2, N3); and heavy trailers (O3, O4) must be checked one year after their first registration date and subsequently each year.

ETSC Recommendation

- Consider introducing annual checks (or checks after a certain mileage has been reached) for other M1 category vehicles other than taxis or ambulances, such as those used by sales representatives, for parcel service delivery or vehicles used for non-scheduled transport services renting a vehicle with a driver, which also have high mileage.

Currently, it is up to individual Member States to determine the permissible time window for conducting the annual vehicle test. In some countries, a grace period of up to four months is allowed beyond the official due date, while in others, the test must be carried out strictly within 12 months—or earlier.

ETSC Recommendation

- Introduce a harmonised approach for the tolerance level for the frequency of testing.

Powered Two Wheelers (PTWs): Motorcycles and Mopeds

The number of powered two-wheeler (PTW) user deaths in the EU fell by 25% over the decade to 2021, from 5,216 in 2011 to 3,891 in 2021.[8] The majority of these deaths involved motorcyclists. However, this decline is smaller than the 33% reduction in deaths among all other road users over the same period, indicating that PTW deaths are not decreasing at the same rate.

PTW deaths accounted for 21% of all road deaths on average in the EU in 2021, compared to 19% in 2011.

6,759 moped users and 17,228 motorcycle users were reported seriously injured in 2020 in the EU27. However, these numbers are likely to be lower than the true numbers due to a high level of underreporting of serious injuries.[9]

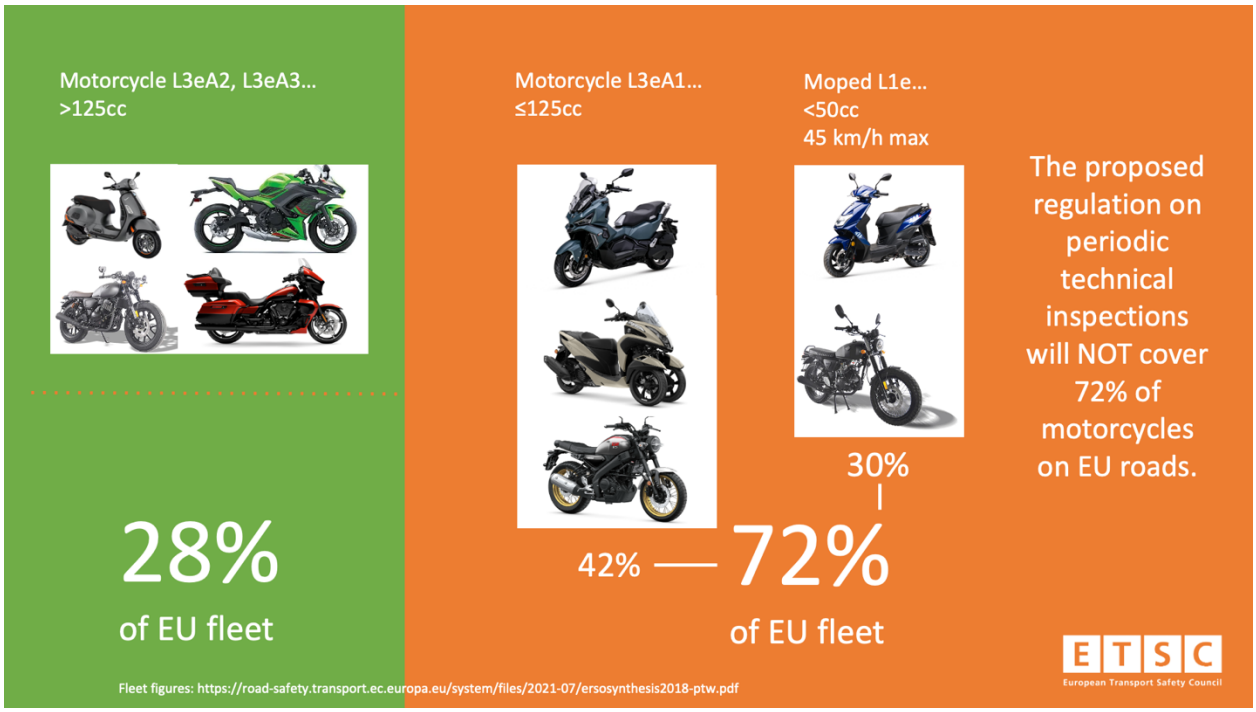
ETSC is very concerned that the Commission proposes to continue to exclude mopeds and motorcycles of 125cc and under from mandatory testing, this represents approximately 70% of the PTW fleet.[10]

[8] ETSC (2023) PIN Flash Reducing road deaths among powered two wheeler users https://tinyurl.com/mv4znds9
[9] Source: EU CARE database. Please note that, for some years, countries that are not included in the figure are France, the Netherlands, Ireland, Italy and Estonia due to problems of comparability, missing data or a break in the time series. For example, two-thirds of the injury crashes in Austria were not reported to police or ambulance.: https://tinyurl.com/2hv9ktk3 Winkelbauer, M. (2024). Comparing Riders' Experiences in Real Life Crashes with and without Airbag Jackets. 15th International Motorcycle Conference, Cologne.
[10]The fleet of PTWs in Europe is estimated at 37 million in 2011, of which about 70% were motorcycles (division between 125 and over and 50-125 CC) and 30% were mopeds. Within the motorcycle fleet, the smallest motorizations (between 50 and 125 cm3) composed more than 60% of the total. The 125cm3 class doubled in volume in 5 years (2003-08) (ITF 2015) As cited in ERSO Synthesis PTWers (2018) https://tinyurl.com/ydn9easf

Motorcycle components such as the tyres, brakes, frame, and suspension are critical to the safety of motorcyclists, and regular checks on their condition are considered important for road safety.[11] Technical failures of PTWs can have much more severe consequences than those for cars, and the condition of the vehicle can influence the consequences and the severity of an occurrence.[12] Even if there is lower mileage, an undetected technical failure on a PTW can lead to fatal consequences for the rider. Studies show both high levels of speed-related tampering in this category, as well as brake and tyre failures that play a role in many crashes.[13]

These collisions might have been prevented if compulsory technical inspections had been in place.

ETSC supports the inclusion of all PTWs in the testing regime. See infographic below. For a full table of categories, see Annex I.



[11] ERSO Road Safety Thematic Report – Motorcycles, 2023, https://tinyurl.com/2up4jr4r
[12] ETSC Position on Roadworthiness Package 2013 https://etsc.eu/wp-content/uploads/2014/03/Roadworthiness-Package_ETSC.pdf
[13] As cited in ETSC PIN Flash Reducing road deaths among powered two wheeler users https://tinyurl.com/mv4znds9

	Motorcycles	Frequency (months)	Mopeds	Frequency (months)
AT	Yes	36/24/12	Yes	36/24/12
BE				
BG	Yes	24	Yes	24
CY[1]	Yes (from 01/06/23)	48/24	Yes (from 01/06/23)	48/24
CZ	Yes	72/48	Yes	72/48
DE	Yes	24	No	
DK[2]	No		No	
EE[3]	Yes	48/24/12	No	
ES	Yes	48/24	Yes	36/24
FI	No		No	
FR	Yes		No	
EL	Yes	24	No	
HR	Yes	24/12	Yes	24/12
HU	Yes	48/24	No	
IE	No		No	
IT	Yes	48/24	Yes	48/24
LU				
LV	Yes	24	No	
LT	Yes	24	Yes	24
MT				
NL				
PL	Yes	36/12	Yes	36/12
PT	No		No	
RO				
SE	Yes	48/24	Yes	48/24
SI[4]	Yes	48/24	Yes	60/48/24
SK	Yes	L3eA1: 48, L3eA2: 48/24, L3eA3: 48/24	No	
UK				
GB				
CH	Yes	60 (max 72)/36/24	No	
IL				
NO				
RS				

Table 1. Periodic technical inspections (PTIs) of PTWs[14]

Frequency - The first number corresponds to the first PTI after the date on which the vehicle was first registered, the second number(s) for the periodicity of all PTIs after that first one. Example: AT: first inspection three years after the date on which the vehicle was first registered, then again two years later and then every year after that.

[1]CY - for rental PTWs frequency is 24/24

[2]DK - There is no PTI for motorcycles either (both 50-125 CC and 125 CC and above), but since January 1st 2022, Denmark introduced road side inspection of motorcycles, undertaken by The Danish Road Traffic Authority and in line with the current possibility of the Directive to have 'alternative traffic safety measures' instead of PTI.

Motorcycles do need to be inspected:

1. When imported.
2. If a motorcycle is sold after being deregistered for more than 1 year.
3. If there has been constructive changes made to the motorcycle's frame ect.
4. In connection with a change of ownership if one of the following situations applies:

a) If the motorcycle is between 5 and 10 years old, and it has been more than 2 years since the last inspection.

[14] ETSC PIN Flash table Updated June 2025 Reducing road deaths among powered two wheeler users https://tinyurl.com/mv4znds9

b) if the motorcycle is over 10 years old, and it has been more than 1 year since the last inspection.
(3)EE – first inspection 48 months after first registration, then if the vehicle has been used for less than 10 years every 24 months, otherwise every 12 months.
(4)SI – for mopeds with speed limit below 25 km/h first technical inspection five years after first registration.

Motorcycles of more than 125 cc

ETSC has welcomed the proposal to close the current loophole that has allowed a handful of EU Member States including Denmark, Finland, Ireland, the Netherlands and now Portugal[15] to exclude all motorcycles from regular testing requirements. The previous revision of the Directive stated that heavy motorcycles (L-vehicles with an engine displacement of more than 125 cc) should be tested from 2022. However Member States were exempt from this obligation if they adopted 'effective alternative road safety measures' for PTWers for this category and if they informed the EC. Under the new EU proposals, excluding all motorcycles from inspections will no longer be allowed.

A comparison between the countries that apply periodic technical inspections (ES, IT, DE) and FR that only introduced PTI for motorcycles in April 2024, is provided in the table below which is taken from the European Commission's impact assessment report on the review of this legislation. [16]

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
DE	0.19	0.20	0.17	0.16	0.16	0.17	0.14	0.15	0.16	0.13
ES	0.10	0.08	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08
FR	0.28	0.29	0.28	0.28	0.29	0.29	0.29	0.26	0.25	0.25
IT	0.13	0.12	0.11	0.10	0.09	0.10	0.09	0.09	0.08	0.08

Table 2. Deaths of occupants of powered two wheelers (i.e., motorcycles and mopeds) per 1000 powered two wheelers.[17]

The data show how many powered two-wheeler (PTW) riders die per 1,000 registered PTW vehicles in four EU Member States. Although the absolute number of rider deaths in 2019 was highest in these countries — with 542 in Germany, 417 in Spain, 615 in France, and 698 in Italy — the **death rates per 1000 registered PTW vehicles** provide more meaningful insight into relative risk and the potential impact of policy measures. Countries that apply periodic technical inspections (PTI) to **both motorcycles and mopeds** (Spain and Italy) show noticeably lower death rates. Germany, which inspects **motorcycles only**, and France, which **only began inspections in April 2024**, have significantly higher ratios. This suggests that extending PTI to **all PTWs** could have a measurable impact on safety.

Tampering

ETSC would recommend more efforts to counter tampering of mopeds such as well-trained vehicle inspectors focussing on this issue during periodic checks. This should be combined with an increased focus on spot-check roadside inspections of mopeds to detect tampering. Some Member States (SE, SI, AT, FI, DK, HU, RO) already perform such inspections although they do not report the exact number of

[15] Portugal cancels roadworthiness tests for motorcycles ETSC (2024) https://tinyurl.com/4zzzna79
[16] European Commission Roadworthiness package Staff Working Document Impact Assessment Report on the revision of the Directives of the Roadworthiness package P. 183 https://tinyurl.com/mr3kydu6
[17] Ibid.

inspections of motorcycles separately and do not indicate a specific target.[18] Mopeds involved in collisions are often found to have been tampered with to allow higher speeds.

According to a survey in Austria, up to half of mopeds (47%) are tuned in a way that enables them to travel at higher speeds.[19] In Denmark, between 2006 and 2012, 17% of all moped collisions resulting in death or serious injury involved vehicles that had been tampered with – some 800 vehicles.[20]

In Finland a total of 91 PTWs caused a fatal motor vehicle collision between 2017-2021 (41 collisions with another vehicle and 50 single-vehicle collisions). Of those, in 16 cases the investigation team mentioned tampering as an influencing risk factor (10 collisions with another vehicle and six single-vehicle collisions). 29 PTWs were involved in collisions caused by another vehicle. In four cases out of those 29, the investigation team mentioned tampering as an influencing risk factor.[21]

In-depth studies conducted by the Norwegian Public Roads Administration of 27 fatal moped collisions in Norway between 2007 and 2016 found that 59% of the mopeds involved in fatal moped collisions had been tampered with. Indeed, half of those tampered mopeds had the potential to reach speeds above 45 km/h, the legal maximum speed for mopeds.[22]

In the Netherlands, an in-depth study into factors influencing collisions involving slow mopeds[23] (snorfietsen) found that in 8-14% of slow moped collisions, poor quality tyres or brakes were a factor in the collision. In addition, in between 6-17% of collisions, the slow moped's engine power had been tampered with.[24]

[18] European Commission Roadworthiness package Staff Working Document Impact Assessment Report on the revision of the Directives of the Roadworthiness package P. 183 https://tinyurl.com/mr3kydu6
[19] Hoschopf, H., Tomasch, E., Spitzer, P., Kleewein, F., Pregartner, H., Brandlmayr, G., Zunzer, S., Oberwallner, R.: TUNE-IT? (2020) Moped tuning – the temptation to modify: motivation – possibilities – effects/consequences (in German) https://bit.ly/3UDhnqh
[20] Source: https://bit.ly/3X9trQW
[21] Data provided by PIN panellist. ETSC has set up the PIN panel of national focal points, national experts from ETSC's network of member organisations and other experts. By lending their expertise to this process, the experts guarantee that the results published are sound. https://etsc.eu/projects/pin/
[22] TØI (2017) Moped crashes in Norway 2007-2016, https://bit.ly/3jFqZnk
[23] Slow moped limited to 25km/h.
[24] SWOV (2017), Slow moped collisions occurring on cycle paths: collision characteristics and scenarios: results of an indepth study into slow moped collisions and suggestions for measures to take (in Dutch) https://bit.ly/3Y4QlKD

All Motorcycles

Extension of technical inspections to other motorcycle types was recommended in an EC study published in 2019.[25] ETSC regrets that this recommendation was not acted upon in the new EC proposal. ETSC recommends a stricter approach to inspections for mopeds and motorcycles, consistent with its position on other vehicle types covered by this legislation, and taking into account their higher risk exposure.

ETSC Recommendation[26]

- Extend testing to cover all motorcycles, including mopeds, without exemptions: as a minimum, first inspection after four years, subsequent inspections every two years then every year after that.

Testing New In-Vehicle Safety Technologies

Minimum technical requirements are laid down for testing centres and equipment. New inspectors who carry out tests must have reached a certain skill level. Items checked in roadworthiness tests will include compatibility between parts, such as between wheels and wheel hubs. Defects, which are assessed in accordance with common rules, are classified into three categories: minor, major and dangerous.

New cars, vans, lorries and buses sold in Europe are required to be fitted as standard with a range of new vehicle safety features, according to the updated General Safety Regulation 2019/2144 requirements.[27]

ETSC strongly supports the proposal's requirement to inspect more than 60 electronic safety systems—both those mandated by the General Safety Regulation (GSR) and those optionally installed by manufacturers—during both periodic technical inspections and roadside checks.

Three safety systems mandated by the GSR are currently missing in the proposal: seatbelt reminders, lane departure warning systems and moving-off information systems. ETSC recommends adding seatbelt reminders[28] and lane departure warning systems[29] as new rows in the respective annexes. In

[25] European Commission (2019) Study on the inclusion of light trailers and two- or three-wheel vehicles in the scope of the periodic roadworthiness testing https://op.europa.eu/en/publication-detail/-/publication/366a32b6-34c2-11e9-8d04-01aa75ed71a1

[26] Fédération Internationale de Motorcyclisme (FIM) does not support this recommendation.

[27] General Safety Regulation 2019/2144 https://eur-lex.europa.eu/eli/reg/2019/2144/oj

[28] Although row 10.19 concerns seat belts, it only refers to systems acting in the event of a crash: belt tensioners and belt force limiters. It is therefore necessary to add an additional row to include seatbelt reminders.

[29] Although row 10.47 concerns lane keeping assistance, the description is incompatible with the operation of the lane departure warning system. The description of row 10.47 requires the system to both warn the driver *and* steer the vehicle back in the lane, whereas the lane departure warning system is only required to warn the driver that the vehicle is drifting out of its travel lane. In addition, row 10.46 equally does not apply, given that it concerns lane changes, whereas the lane departure warning system concerns (unintentional) drifting out of the lane.

order to introduce moving-off information systems, and with a view of futureproofing both Directives, ETSC recommends replacing 'turning assistant system' (10.54) with 'VRU close proximity systems', which cover both the non-intervening blind spot information ('turning assistant system') and moving-off information systems already mandated for trucks and buses, and would also cover intervening systems if they are installed or mandated in the future.[30]

As up-to-date speed limit information is vital for the accurate functioning of the ISA system,[31] which in turn is of the utmost importance for reducing road deaths as well as driver acceptance of the system, the inspections should verify that the ISA system is not using outdated or incorrect map data. This is currently not included in the proposal, and ETSC therefore recommends adding this to the row on intelligent speed assistance (10.56) in both annexes.

ETSC welcomes that the checks on eCall systems are maintained and are now included as part of the electronic safety systems. The revised text however omits the points on audio components and power source that were previously explicitly listed and ETSC recommends reintroducing those in the eCall row.[32]

Several electronic safety systems make use of components such as sensors and cameras. It is important that those components are properly aligned for the correct operation of those safety systems, and ETSC therefore recommends adding specific checks on this. As different electronic safety systems often make use of the same sensors or camera, one check per component could verify this for all safety systems using that component.

The checks which are introduced for the new in-vehicle safety technologies could be supplemented in part by using on-board diagnostics.

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[30] Although the turning assistant system currently listed in row 10.54 is one system that implements the requirement from Art. 9(3) of the GSR, it only refers to the near side of the vehicle and therefore the description of row 10.54 is too narrow to be able to apply to all systems implementing said provision of the GSR. The GSR also mandated trucks and buses to have a "moving off information system" installed, which detects pedestrians and cyclists in the blind spot in front of the vehicle and subsequently warns the driver of a potential collision during moving off and low-speed manoeuvres. (See Point B5 of Annex II of the GSR, which mandates compliance with UNECE-R 159).
Moreover, although the two currently mandated systems are non-intervening warning systems, the text of Art. 9(3) also refers to collision avoidance systems, which may therefore be made mandatory in the future. In order to future proof Directives 2014/46/EU and 2014/47/EU, the description should refer to both the possibility for the system to warn the driver and/or avoid the collision.
As such, ETSC recommends to replace the rows specific for the turning assistant with one that includes a name and description that captures all systems that could be mandated in line with Art. 9(3) of the GSR.

[31] ETSC Briefing on ISA https://etsc.eu/briefing-intelligent-speed-assistance-isa/

[32] The proposal moves the provisions on inspecting the eCall systems from point 7.13 to point 10.48 in the new electronic safety systems section. However, the sub-points on "audio components not connected" (7.13.2 sub-point (f)) and "power source not connected or insufficient charge" (7.13.2 sub-point (g)) are no longer covered in point 10.48, and as such should be reintroduced.

ETSC Recommendations

- Introduce new checks to verify whether the new in-vehicle safety systems and their components are still in a condition that allows for their appropriate functioning; e.g. components such as cameras and sensors have not deteriorated and are still properly aligned.
- Add seatbelt reminders and lane departure warning systems to the list of safety systems in the annexes.
- Replace turning assistant system (10.54) with VRU close proximity systems, which covers both turning assistant systems (blind spot information systems) as well as the missing moving-off information system.
- Reintroduce the "audio components not connected" and "power source not connected or insufficient charge" subpoints in the eCall inspections.
- For Intelligent Speed Assistance systems, a priority life-saving device, check that its speed limit detection capabilities are still satisfactory, for example, by checking that the cameras are still reading speed signs correctly and that digital speed maps are up-to-date.

Software Updates

It is increasingly common for a vehicle's software to be updated when the vehicle is already on the market, including through the use of over-the-air updates. Vehicle manufacturers may include modifications that could improve safety or increase security. On the other hand, unapproved software modifications may present risks to safety and security.

ETSC welcomes the inclusion in the European Commission's proposal of checks to verify both the software version and the integrity of electronic safety systems.

ETSC Recommendations

- Rules on roadworthiness should ensure that the vehicle is checked to have the latest software update correctly installed.
- The check should furthermore ensure that the software in the vehicle is original as well as type-approved.

Automation

ETSC strongly welcomes the proposal's introduction of inspections for assisted driving systems, automated driving systems, and related systems.

In order to futureproof the Directives, the current restrictive text of the row on automated driving systems (10.61) should be amended to ensure that all automated driving systems are covered.[33] In

[33] The term "fully automated vehicles" refers to a specific sub-set of automated vehicles, namely those where the system can drive the vehicle in all conditions and environments without human/user input. The description proposed in the European Commission's proposal is based on Commission Implementing Regulation (EU) 2022/1426 on the type-approval of the automated driving system (ADS) of fully automated vehicles. However, these implementing rules only regulate ADS for three specific use cases for fully automated vehicles. Moreover, those rules currently include a limit for dual-mode vehicles

addition, checks of the "data storage system for automated driving" (DSSAD) should be added to the list, as the DSSAD records data critical for crash investigations as well as for determining who was in control of the vehicle during traffic offences.

With regards to assisted driving systems, a recently adopted delegated regulation updating the GSR introduces mandatory compliance with UN Regulation 171 on driver control assistance systems (DCAS) for systems that assist the driver in performing vehicle dynamic control, if such systems are fitted to the vehicle. In order to future proof Directives 2014/46/EU and 2014/47/EU, an additional row that covers DCAS systems should be added to the electronic safety systems section in both Directives' annexes.[34]

ETSC Recommendations

- Ensure that automated vehicles undergo regular safety performance evaluations as part of routine roadworthiness tests, with reporting mechanisms that may include self-diagnostic data.
- Amend the description of point 10.61 to ensure it captures all automated driving systems.
- Add new rows for the DSSAD and assisted driving systems (DCAS) to the electronic safety systems.

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to only allow the change from the driver driving the vehicle to the system – or vice versa – to happen when the vehicle is in standstill. Due to its description, point 10.61 will only apply to a specific, limited set of ADS. It is expected that passenger cars used by EU citizens in their daily life will be fitted with systems approved in line with other forthcoming rules.These rules – which are currently being finalised in an UNECE WP.29 informal working group co-chaired by the European Commission – would allow the approval of automated driving systems for any use case, including for other than the three listed in (EU) 2022/1426. Moreover, these would not only allow the approval of ADS for "fully automated vehicles" (level 5 on the SAE scale of automation), but also for vehicles with conditional automation (Level 3) and high automation (Level 4).
In order to future proof Directives 2014/46/EU and 2014/47/EU, the description in point 10.61 should be less restrictive and instead be worded to capture all possible automated driving systems. The need to amend point 10.61 on automated driving systems is highlighted by point 10.53 on the automated lane keeping system (ALKS), which is an automated driving system as well. The point describes an ALKS as a "system which is activated by the driver, and which keeps the vehicle within its lane by controlling the lateral and longitudinal movements of the vehicle for extended periods without the need for further driver input." Point 10.53 references as example UNECE-R 157. However, that UN Regulation was updated in 2022, and since 2023 also allows for the approval of ALKS systems with the functionality to automatically change lanes. A narrow interpretation of point 10.53's description would result in the newer UN R157-approved ALKS systems with automated lane changes to no longer conform to the description, given that automated lane changes mean the system on occasion and intentionally no longer keeps the vehicle within its lane. ETSC believes that the description of 'automated driving systems' in point 10.61 should be improved in order to prevent the point from no longer being (fully) applicable to systems intended to be captured by the point due to later regulatory activities.
Striking out the words "fully automated" would allow point 10.561 to cover all automated driving systems, and thereby future proof the regulation. ETSC recommends adding a reference to UN R157, ALKS as a Level 3 "dual-mode while driving" system, to the listed example, in order to underline that all types of automated driving systems are covered by this point.

[34] Steering assist systems are covered by point 10.22. However, DCAS-compliant systems go beyond merely steering assist and as such the description is not sufficient to cover DCAS systems.
Point 10.46 covers lane change assistance, which is a functionality also available to DCAS systems. However, the description in point 10.46 is limited to systems that warn the driver about vehicles in the next lane and subsequently steer the vehicle back. The GSR allows for the approval of lane change assistance systems in line with UN-R 79, which includes rules for so-called ACSF C systems. These systems assist the driver by performing the lane change manoeuvre, when commanded to do so by the driver. As these are two different types of lane change assistance, it should be ensured that both are covered in the annexes of the Directives, and as such, this recommended amendment would ensure the assisted driving systems row would cover these ACSF C type systems.

Technical Roadside Inspections of Commercial Vehicles

Directive 2014/47/EC

The rules governing roadside inspections of motor vehicles and their trailers used for professional transport were revised in 2014, alongside updates to the rules on periodic technical inspections, and have been applied across EU Member States since May 2018. Due to their frequent and intensive use for commercial purposes, these vehicles are also subject to ad hoc technical roadside inspections.

Target of Roadside Checks

The European Commission proposes shifting the 5% inspection target for heavy commercial vehicles from an EU-wide benchmark to an individual target for each Member State. Currently, not all Member States meet the existing target. Over the past decade, roadside technical inspection services have seen a significant decline in capacity across the EU, while the volume of road transport for goods and passengers remains high. To make the best use of limited resources, inspections should focus on repeat offenders who may pose a higher safety risk. These operators should also face stricter penalties to discourage further violations. In addition, greater use should be made of the existing risk rating system (see below)."

To better identify where the quality of vehicle inspections can be improved and to strengthen coordination across Member States, the EU should adopt Key Performance Indicators (KPIs) that go beyond merely counting the number of checks. Examples might include the percentage of vehicles passing inspection, the types of defects found, and the time taken for inspections

ETSC Recommendation

- Enhance the quality of inspections by introducing and systematically collecting Key Performance Indicator (KPI) data, and by making greater use of the risk rating system. These tools should help Member States better target inspections and penalties, particularly for repeat offenders who pose a higher safety risk.

Risk Rating System

Member States are required to establish a risk rating system for transport operators, based on the number and severity of infringements they have committed in line with EU legislation as regards social

legislation and road transport activities.[35] The aim is to increase checks on transport operators with a poor record concerning compliance with limits on driving times. This approach obliges Member States to exchange data and launch a European Risk Rating System through which poorly performing companies can be identified and targeted at the EU level. This requires good relationships and cooperation between enforcement organisations across borders. At present, one of the cited reasons as to why this co-operation is being hindered, are the new requirements of the General Data Protection Regulation 2016/679. A way must be found to both respect new data protection requirements and fulfill the legal requirements of using the European Risk Rating System for the benefit of road safety. Strong political will of the Member States is needed to put this into action.

A reference to the risk rating system first established under Directive 2006/22/EC[36] was introduced in the 2014 revision of Directive 2014/46/EU. This system allows inspectors to identify transport operators that present a higher risk of technical defects, enabling more targeted and frequent inspections when necessary. The Directive outlines criteria that Member States may use to assign risk profiles.

However, the effectiveness of this approach depends on the proper functioning of the underlying system in the legislation.[37] At present, existing risk profiling systems vary significantly in quality and application across Member States. Greater harmonisation is needed to ensure consistency, raise quality standards, and address data protection concerns—especially to enable cross-border use of the system.

There is also an existing mechanism in the current Directive 2014/46/EC on registration documents[38] and the current EC Implementing Regulation 2017/2205[39] for sharing information in relation to major or dangerous defects found on vehicles coming from abroad.

Improved information sharing, including records of good performance prior to inspections that reveal serious defects, would further support more intelligence-led enforcement. This would help enforcement authorities make better use of limited resources while focusing efforts on the highest-risk operators.

Vans

The new European Commission proposal extends roadside inspections to include vans under 3.5 tonnes (N1 category) and sets a target for Member States to inspect at least 2% of the N1 vehicle fleet. Several countries—namely Spain, Hungary, Sweden, Slovakia, and Finland—already carry out roadside

[35] EC Implementing Regulation (EU) 2022/695 (2022) laying down rules for the application of Directive 2006/22/EC of the European Parliament and of the Council as regards the common formula for calculating the risk rating of transport undertakings https://tinyurl.com/2ujt78xw
[36] ibid
[37] ibid
[38] Directive 2014/46/EU of the European Parliament and of the Council of 3 April 2014 amending Council Directive 1999/37/EC on the registration documents for vehicles https://tinyurl.com/bdf5s7bj
[39] EC Implementing Regulation (EU) 2017/2205 of 29 November 2017 on detailed rules concerning the procedures for the notification of commercial vehicles with major or dangerous deficiencies identified during a technical roadside inspection https://tinyurl.com/2rtzkj7m

inspections for these vehicles.[40] This inclusion would be welcome, vans continue to increase in number and the latest data on collisions involving light goods vehicles show that the number of deaths is on a par with those involving heavy goods vehicles.[41] Roadside inspections help identify vehicles with technical defects and ensure that necessary repairs are made, thereby restoring their roadworthiness and improving overall road safety. Under the latest update to EU rules on driving times, international transport operators using light commercial vehicles over 2.5 tonnes are now also subject to EU transport operator requirements and must equip their vans with a tachograph.[42] Just as with the other vehicles, if included, vans should be selected for inspection based on the risk profile of the operators and those deemed to be high-risk should be targeted in order to reduce the burden on operators that maintain their vehicles properly.

ETSC also supports the inclusion of trailers belonging to vans in roadside inspection requirements and a new registration scheme.

ETSC Recommendation

- Support the inclusion of vans in the scope of roadside inspections.
- Introduce into the scope light trailers and a new accompanying registration scheme.

Motorcycles

Roadside inspections of powered two-wheelers would help detect vehicles with safety-critical defects, ensuring they are repaired and returned to a safe condition—contributing to improved road safety.

Several Member States—including Sweden, Slovenia, Austria, Finland, Denmark, Hungary, and Romania—already carry out such inspections.[43]

ETSC Recommendation

- Include Powered Two Wheelers in regular roadside technical inspections.

Cargo Securing

The European Commission has proposed making cargo securing checks mandatory, recognising that proper cargo securing is essential for road safety. Every day, collisions occur due to loads that are

[40] European Commission Roadworthiness package Staff Working Document Impact Assessment Report on the revision of the Directives of the Roadworthiness package P. 183 https://tinyurl.com/mr3kydu6
[41] ETSC (2020) How to improve the Safety of Goods Vehicles in the EU ? PIN Flash 37 https://etsc.eu/wp-content/uploads/PIN-FLASH39_FINAL.pdf
[42] European Parliament Press Release on Mobility Package Deal (21.01.2020) https://www.europarl.europa.eu/news/en/press-room/20200120IPR70630/mobility-package-transport-committee-backs-deal-with-eu-ministers
[43] European Commission Roadworthiness package Staff Working Document Impact Assessment Report on the revision of the Directives of the Roadworthiness package P. 183 https://tinyurl.com/mr3kydu6

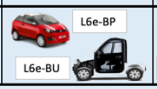
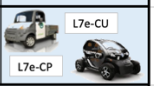
improperly stowed or unsecured. Cargo must be positioned and secured on vehicles in a way that prevents it from shifting or falling off, posing a risk to people and property. To support this, the European Best Practices Guidelines were revised and adopted in 2014, offering both technical background and practical instructions for securing cargo during road transport.[44] The guidelines also provide a common foundation for the practical implementation and enforcement of cargo securing. The current Directive requires that, when cargo securing is part of a roadside check, the personnel involved must be properly trained. ETSC supports more harmonised action in this area, including the mandatory use of a standardised training curriculum for inspectors and the establishment of minimum harmonised inspection standards. Such measures would enhance legal certainty for drivers and operators engaged in international transport, who currently face varying interpretations of cargo securing requirements when crossing borders.

ETSC Recommendations

- Develop a harmonised training curriculum with requirements for personnel involved in cargo securing.
- Support the introduction of mandatory cargo securing checks.

[44] European Commission (2014) Best Practice Guidelines Cargo Securing for Road Transport https://op.europa.eu/en/publication-detail/-/publication/30c7c1dc-f26e-44af-bd4c-2434b43edd7e

Annex I - PTW Categories and Inclusion in EC PTI Proposal - 2025

Category	L1e			L2e		L3e					L4e	L5e		L6e		L7e			
Cat. Name	Light two-wheel powered vehicle			Three-wheel moped		Two-wheel motorcycle					Two-wheel motorcycle with side-car	Powered tricycle		Light quadricycle		Heavy quadricycle			
Sub. Cat.	L1eA	L1eB		L2e-P	L2e-U	L3e-A1	L3e-A2	L3e-A3	L3e-AxE	L3e-AxT	L4eA1 - A2 - A3	L5e-A	L5e-B	L6e-A	L6e-B	L7e-A	L7e-B1	L7e-B2	L7e-C
Sub. Cat. Name	Powered cycle	"Speed EPAC"' style of 2 wheels moped	Two-wheel moped	Three-wheel moped for passenger transport	Three-wheel moped for utility purposes	Low-performance motorcycle	Medium-performance motorcycle	High-performance motorcycle	Enduro motorcycles	Trial motorcycles	*follows the L3e sub.cat system A1 - A2 - A3*	Tricycle	Commercial tricycle	Light on-road quad	Light quadri-mobile	Heavy on-road quad	All terrain quad	Side By Side Buggy	Heavy quadri-mobile
															 L6e-BP L6e-BU	 L7e-A1 L7e-A2			 L7e-CU L7e-CP
Legal framework	Regulation 168/2013/EU & Delegated and Implementing Acts										Regulation 168/2013/EU & Delegated and Implementing Acts								
Propulsion	Muscular and/or engine (eMotor)	Muscular + engine (eMotor)	100% engine (ICE)	Engine		Engine					Engine	Engine		Engine		Engine			
Max power	1000 W	4 KW		4 KW		11 KW	35 KW	-	*x = 1,2,3* A1: 11 KW A2: 35KW A3: unlimited		A1: 11 KW A2: 35KW A3: unlimited	-		4 KW	6 KW	15 KW	-	15 KW	15 KW
Max engine capacity		-	50 cm3	50 cm3 (PI) 500 cm3 (CI)		125 cm3	-	-	A1: 125 cm3 A2: unlimited A3: unlimited		A1: 125 cm3 A2: unlimited A3: unlimited	50 cm3 (PI) 500 cm3 (CI)		50 cm3 (PI) 500 cm3 (CI)		-			
Max speed	25 km/h	45 km/h with eMotor assist	45 km/h	45 km/h		-					-	-		45 km/h			90 km/h	-	90 km/h
Included in EC PTI Proposal 2025	No			No		No	Yes	Yes	>125cm3 or >11kW Yes (A2 & A3)		>125cm3 or >11kW Yes (A2 & A3)	>125cm3 or >11kW Yes		No		>125cm3 or >11kW Yes	>125cm3 or >11kW Yes	>125cm3 or >11kW Yes	>125cm3 or >11kW Yes
ETSC recommendation for inclusion	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Source for L category data: ACEM

FOR FURTHER INFORMATION

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The European Transport Safety Council is the independent voice for road safety in Europe. We are a non-profit international organisation, with members from across Europe, dedicated to reducing deaths and injuries in transport.