REGULATION (EU) No 168/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 15 January 2013
on the approval and market surveillance of two- or three-wheel vehicles and quadricycles
(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee ( 1 ),

Acting in accordance with the ordinary legislative procedure ( 2 ),

Whereas:

(1) The internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital must be ensured. To that end a comprehensive EC type-approval system for two- or three-wheel vehicles was established by Directive 2002/24/EC of the European Parliament and of the Council ( 3 ) on the type-approval of such vehicles. Those principles should continue to apply for this Regulation and the delegated and implementing acts adopted pursuant to this Regulation.

(2) The internal market should be based on transparent, simple and consistent rules which provide legal certainty and clarity from which businesses and consumers alike can benefit.

(3) With the aim of simplifying and accelerating the adoption of type-approval legislation, a new regulatory approach has been introduced in EU vehicle type-approval legislation, under which the legislator in the ordinary legislative procedure sets out only the fundamental rules and principles and delegates the laying down of further technical details to the Commission. With regard to substantive requirements, this Regulation should therefore lay down only fundamental provisions on functional safety and environmental performance, and empower the Commission to lay down the technical specifications.

(4) This Regulation should be without prejudice to measures at national or Union level regarding the use of L-category vehicles on the road, such as specific drivers’ licence requirements, limitations of maximum speed or measures regulating access to certain roads.

(5) Market surveillance in the automotive sector, and in particular the L-category vehicle sector, should be improved by enhancing the legal provisions governing conformity of production and specifying the obligations of the economic operators in the supply chain. In particular, the role and responsibilities of the authorities in the Member States in charge of type-approval and market surveillance should be clarified, and the requirements relating to the competence, obligations and performance of the technical services that perform tests for vehicle type-approval reinforced. Compliance with the type-approval and conformity-of-production requirements of the legislation governing the automotive sector should remain the key responsibility of the approval authorities, while market surveillance may be a competence shared between different national authorities. Effective coordination and monitoring at Union and national levels should be deployed to ensure that approval and market surveillance authorities apply the new measures effectively.

(6) The national authorities’ obligations laid down in the market surveillance provisions of this Regulation are more specific than the corresponding provisions of Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products ( 4 ).

(7) This Regulation should contain substantive requirements for environmental protection and vehicle functional safety. The main elements of the relevant requirements of this Regulation are based on the results of the impact assessment of 4 October 2010 carried out by the Commission analysing different options by listing possible advantages and disadvantages in terms of economic, environmental, safety and societal aspects. Both qualitative and quantitative aspects were included in that analysis. After comparison of the different options the preferred options were identified and chosen to form the basis for this Regulation.

( 1 ) OJ C 84, 17.3.2011, p. 30.
(8) This Regulation aims to lay down harmonised rules for the type-approval of L-category vehicles, with a view to ensuring the functioning of the internal market. L-category vehicles are two-, three- or four-wheel vehicles such as powered two-wheel vehicles, tricycles and quadricycles. In addition, this Regulation aims to simplify the current legal framework, to reduce the emissions from L-category vehicles, thus resulting in a more proportionate share of L-category vehicle emissions in overall road transport emissions, to increase the overall level of safety, to adapt to technical progress and to strengthen the rules on market surveillance.

(9) In order to ensure a high level of vehicle functional safety, occupational safety and environmental protection, the technical requirements and environmental standards applicable to vehicles, systems, components and separate technical units with regard to type-approval should be harmonised.

(10) The objectives of this Regulation should not be affected by the fitting of certain systems, components or separate technical units after vehicles have been placed on the market, registered or entered into service. Thus, appropriate measures should be taken in order to make sure that systems, components or separate technical units which can be fitted to vehicles, and which could significantly impair the functioning of systems that are essential for environmental protection or functional safety, are subject to prior control by an approval authority before they are placed on the market, registered or are entered into service.

(11) Directive 95/1/EC of the European Parliament and of the Council of 2 February 1995 on the maximum design speed, maximum torque and maximum net engine power of two- or three-wheel motor vehicles (5) gave the option to Member States to refuse the initial registration and any subsequent registration within their territory of vehicles with a maximum net power of more than 74 kW. The anticipated correlation between safety and absolute power limitation could not be confirmed in several scientific studies. For that reason and in order to remove internal barriers to trade on the Union market, that option should no longer be maintained. Other, more effective safety measures should be introduced to help reduce the high numbers of fatalities and injuries among riders of powered two-wheel vehicles in road accidents in the Union.

(12) This Regulation sets environmental requirements for two stages with the second stage (Euro 5) being mandatory for new types of vehicles as of 1 January 2020, thereby creating long-term planning predictability for the vehicle manufacturers and the supplier industry. Based on future available data, an environmental effect study required by this Regulation should provide additional underpinning through modelling, technical feasibility and cost-effectiveness analysis based on the latest available data. In addition, the study should, inter alia, assess the feasibility and cost-effectiveness of in-service conformity testing requirements, off-cycle emission requirements and a particulate number emission limit for certain (sub-)categories. On the basis of the study results, the Commission should consider presenting a proposal introducing these new elements into future type-approval legislation applicable after the stages provided for in this Regulation.

(13) The EU type-approval system is intended to enable each Member State to confirm that each type of vehicle has undergone the checks provided for in this Regulation and in delegated and implementing acts adopted pursuant to this Regulation, and that its manufacturer has obtained a type-approval certificate. It furthermore obliges manufacturers to issue a certificate of conformity for each vehicle produced in accordance with the type-approval. When a vehicle is accompanied by such a certificate it should be permitted to be made available on the market and registered for use throughout the Union.

(14) In order to ensure that the procedure for monitoring conformity of production, which is one of the cornerstones of the EU type-approval system, has been correctly implemented and functions properly, manufacturers should be regularly checked by a competent authority or by an appropriately qualified technical service designated for that purpose.

(15) This Regulation constitutes a set of specific safety and environmental requirements. Therefore, it is important to establish provisions to ensure that, in cases where a vehicle presents a serious risk for users or the environment, the manufacturer or any other economic operator in the supply chain has taken effective protective measures, including the recall of vehicles, within the meaning of Article 20 of Regulation (EC) No 765/2008. Approval authorities should therefore be able to assess whether those measures are sufficient.

(16) In certain limited cases, it is appropriate to allow for national small series type-approval. In order to prevent misuse, any simplified procedure for small-series vehicles should be restricted to cases of very limited production. It is therefore necessary to define precisely the concept of small series in terms of the number of vehicles produced.

The Union is a contracting party of the Agreement of the United Nations Economic Commission for Europe concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted to and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions (Revised 1958 Agreement) (1). In order to simplify the type-approval legislation in line with the recommendations of the report published by the Commission in 2006 entitled ‘CARS 21: A Competitive Automotive Regulatory System for the 21st century’, it is appropriate to repeal all separate Directives without reducing the level of protection. The requirements set out in those Directives should be carried over to this Regulation or to the delegated acts adopted pursuant to this Regulation and should be replaced, where appropriate, with references to the corresponding United Nations Economic Commission for Europe (UNECE) regulations which the Union has voted in favour of or to which the Union has acceded and which are annexed to the Revised 1958 Agreement. To reduce the administrative burden of the type-approval process, vehicle manufacturers should be allowed to seek type-approval in accordance with this Regulation, where appropriate, directly by means of obtaining approval under the relevant UNECE regulations referred to in the Annexes to this Regulation or in the delegated acts adopted pursuant to this Regulation.

Consequently, UNECE regulations and the amendments thereto on which the Union has voted in favour, in application of Decision 97/836/EC, should be incorporated within the EU type-approval legislation. Accordingly, the power should be delegated to the Commission to adopt the necessary adaptations to the Annexes to this Regulation or to the delegated acts adopted pursuant to this Regulation.

Unrestricted access to vehicle repair information, via a standardised format which can be used to retrieve the technical information, and effective competition on the market for vehicle repair and maintenance information services are necessary to improve the functioning of the internal market, particularly as regards the free movement of goods, the freedom of establishment and the freedom to provide services. A great proportion of such information is related to on-board diagnostic systems and their interaction with other vehicle systems. It is appropriate to lay down technical specifications that the websites of the manufacturers should follow, along with targeted measures to ensure reasonable access for small and medium-sized enterprises.

In order to ensure uniform conditions for the implementation of this Regulation, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission’s exercise of implementing powers (2).

In order to supplement this Regulation with further technical details, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of requirements on environmental and propulsion performance, on functional safety and on vehicle construction. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level. The Commission, when preparing and drawing up delegated acts, should ensure simultaneous, timely and appropriate transmission of relevant documents to the European Parliament and to the Council.

Member States should lay down rules on penalties applicable to infringements of this Regulation and the delegated or implementing acts adopted pursuant to this Regulation and ensure that they are implemented. Those penalties should be effective, proportionate and dissuasive.

In order to be able to assess and decide whether to extend mandatory fitting of certain advanced brake systems to additional categories of motorcycles, the Commission should report to the European Parliament and to the Council on the basis, inter alia, of road accident data provided by Member States.

While nothing in this Regulation prevents Member States from continuing to apply their respective individual approval systems, the Commission should report to the European Parliament and the Council on the operation of these national systems, based on information provided by Member States, in order to reconsider the question of whether to submit a legislative proposal for the harmonisation of the individual approval system at Union level.

In the context of the revision of Directive 2007/46/EC of the European Parliament and of the Council of 5 September 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles (3), the delineation between this Regulation and Directive 2007/46/EC should be considered in the light of the experience gained by Member States in the application of this Regulation, in particular in order to ensure fair competition between vehicle categories.


(26) In the interest of clarity, predictability, rationality and simplification and in order to reduce the burden for vehicle manufacturers, this Regulation should contain only a limited number of implementation stages for the introduction of new emission levels and safety requirements. Industry should be allowed sufficient time to adapt to the new provisions laid down in this Regulation and to the technical specifications and administrative provisions set out in the delegated and implementing acts adopted pursuant to this Regulation. Timely definition of requirements is essential to ensuring sufficient lead-time for manufacturers to develop, test and implement technical solutions for vehicles produced in series, and for manufacturers and approval authorities in the Member States to put in place the necessary administrative systems.

(27) Directive 2002/24/EC and the separate Directives referred to in that Directive have been substantially amended several times. In the interests of clarity, rationality and simplification, Directive 2002/24/EC and the separate Directives referred to in that Directive should be repealed and replaced by one Regulation and a small number of delegated and implementing acts. The adoption of a Regulation ensures that the provisions concerned are directly applicable and can be updated much faster and more efficiently to take better account of technical progress.

(28) The following Directives should be repealed:

— Directive 2002/24/EC,


— Directive 95/1/EC,


(29) Since the objectives of this Regulation, namely to lay down harmonised rules on the administrative and technical requirements for the type-approval of L-category vehicles and on market surveillance of such vehicles, cannot be sufficiently achieved by the Member States, and can therefore, by reason of their scale and effects, be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity, as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve those objectives,

\(^{1}\) OJ L 121, 15.5.1993, p. 1.
\(^{2}\) OJ L 188, 29.7.1993, p. 11.
\(^{3}\) OJ L 188, 29.7.1993, p. 32.
HAVE ADOPTED THIS REGULATION:

CHAPTER I
SUBJECT MATTER, SCOPE AND DEFINITIONS

Article 1

Subject matter

1. This Regulation establishes the administrative and technical requirements for the type-approval of all new vehicles, systems, components and separate technical units referred to in Article 2(1).

This Regulation does not apply to the approval of individual vehicles. However, Member States granting such individual approvals shall accept any type-approval of vehicles, systems, components and separate technical units granted under this Regulation instead of under the relevant national provisions.

2. This Regulation establishes the requirements for the market surveillance of vehicles, systems, components and separate technical units which are subject to approval in accordance with this Regulation. This Regulation also establishes the requirements for the market surveillance of parts and equipment for such vehicles.

3. This Regulation is without prejudice to the application of legislation on road safety.

Article 2

Scope

1. This Regulation shall apply to all two- or three-wheel vehicles and quadricycles as categorised in Article 4 and Annex I (‘L-category vehicles’), that are intended to travel on public roads, including those designed and constructed in one or more stages, and to systems, components and separate technical units, as well as parts and equipment, designed and constructed for such vehicles.

This Regulation also applies to enduro motorcycles (L3e-AxE ($x = 1, 2$ or $3$)), trial motorcycles (L3e-AxT ($x = 1, 2$ or $3$)) and heavy all terrain quads (L7e-B) as categorised in Article 4 and Annex I.

2. This Regulation does not apply to the following vehicles:

(a) vehicles with a maximum design speed not exceeding 6 km/h;

(b) vehicles exclusively intended for use by the physically handicapped;

(c) vehicles exclusively intended for pedestrian control;

(d) vehicles exclusively intended for use in competition;

(e) vehicles designed and constructed for use by the armed services, civil defence, fire services, forces responsible for maintaining public order and emergency medical services;


(g) vehicles primarily intended for off-road use and designed to travel on unpaved surfaces;

(h) pedal cycles with pedal assistance which are equipped with an auxiliary electric motor having a maximum continuous rated power of less than or equal to 250 W, where the output of the motor is cut off when the cyclist stops pedalling and is otherwise progressively reduced and finally cut off before the vehicle speed reaches 25 km/h;

(i) self-balancing vehicles;

(j) vehicles not equipped with at least one seating position;

(k) vehicles equipped with any seating position of the driver or rider having an R-point height $\leq 540$ mm in case of categories L1e, L3e and L4e or $\leq 400$ mm in case of categories L2e, L5e, L6e and L7e.

Article 3

Definitions

For the purposes of this Regulation and the acts listed in Annex II, except as otherwise provided therein, the following definitions shall apply:

(1) ‘type-approval’ means the procedure whereby an approval authority certifies that a type of vehicle, system, component or separate technical unit satisfies the relevant administrative provisions and technical requirements;

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\(^{1}\) See page 1 of this Official Journal
(2) ‘type-approval certificate’ means the document whereby the approval authority officially certifies that a type of vehicle, system, component or separate technical unit is approved.

(3) ‘whole-vehicle type-approval’ means a type-approval whereby an approval authority certifies that an incomplete, complete or completed vehicle type satisfies the relevant administrative provisions and technical requirements.

(4) ‘EU type-approval’ means the procedure whereby an approval authority certifies that a type of vehicle, system, component or separate technical unit satisfies the relevant administrative provisions and technical requirements of this Regulation.

(5) ‘EU type-approval certificate’ means the certificate based on the template set out in the implementing act adopted pursuant to this Regulation or the communication form set out in the relevant UNECE regulations referred to in this Regulation or the delegated acts adopted pursuant to this Regulation.

(6) ‘system type-approval’ means a type-approval whereby an approval authority certifies that a system built into a vehicle of a specific type satisfies the relevant administrative provisions and technical requirements.

(7) ‘separate technical unit type-approval’ means a type-approval whereby an approval authority certifies that a separate technical unit satisfies the relevant administrative provisions and technical requirements in relation to one or more specified types of vehicles.

(8) ‘component type-approval’ means a type-approval whereby an approval authority certifies that a component independently of a vehicle satisfies the relevant administrative provisions and technical requirements.

(9) ‘national type-approval’ means a type-approval procedure laid down by the national law of a Member State, the validity of such approval being restricted to the territory of that Member State.

(10) ‘certificate of conformity’ means the document issued by the manufacturer, which certifies that a produced vehicle conforms to the approved vehicle type.

(11) ‘base vehicle’ means any vehicle which is used at the initial stage of a multi-stage type-approval process.

(12) ‘incomplete vehicle’ means any vehicle which must undergo at least one further stage of completion in order to meet the relevant technical requirements of this Regulation.

(13) ‘completed vehicle’ means a vehicle resulting from the process of multi-stage type-approval which meets the relevant technical requirements of this Regulation.

(14) ‘complete vehicle’ means any vehicle which need not be completed in order to meet the relevant technical requirements of this Regulation.

(15) ‘system’ means an assembly of devices combined to perform one or more specific functions in a vehicle and which is subject to the requirements of this Regulation or any of the delegated or implementing acts adopted pursuant to this Regulation.

(16) ‘component’ means a device subject to the requirements of this Regulation or any of the delegated or implementing acts adopted pursuant to this Regulation, which is intended to be part of a vehicle and which may be type-approved independently of a vehicle in accordance with this Regulation and the delegated or implementing acts adopted pursuant to this Regulation where those acts make express provision for so doing.

(17) ‘separate technical unit’ means a device subject to the requirements of this Regulation or any of the delegated or implementing acts adopted pursuant to this Regulation and intended to be part of a vehicle, which may be type-approved separately, but only in relation to one or more specified types of vehicle, where those acts make express provision for so doing.

(18) ‘parts’ means goods used for the assembly of a vehicle as well as spare parts.

(19) ‘equipment’ means any goods other than parts which can be added to or installed on a vehicle.

(20) ‘original parts or equipment’ means parts or equipment which are manufactured according to the specifications and production standards provided by the vehicle manufacturer for the production of parts or equipment for the assembly of the vehicle in question; this includes parts or equipment which are manufactured on the same production line as these parts or equipment; it is presumed, unless the contrary is proven, that parts or equipment constitute original parts or equipment if the manufacturer certifies that the parts or equipment match the quality of the components used for the assembly of the vehicle in question and have been manufactured in accordance with the specifications and production standards of the vehicle manufacturer.

(21) ‘spare parts’ means goods which are to be installed in or on a vehicle so as to replace original parts of that vehicle, including goods such as lubricants which are necessary for the use of a vehicle, with the exception of fuel.
(22) ‘functional safety’ means the absence of unacceptable risk of physical injury or of damage to the health of persons or to property owing to hazards caused by mal-functional behaviour of mechanical, hydraulic, pneumatic, electrical or electronic systems, components or separate technical units;

(23) ‘advanced brake system’ means an anti-lock brake system, a combined brake system or both;

(24) ‘anti-lock brake system’ means a system that senses wheel slip and automatically modulates the pressure producing the braking forces at the wheel(s) to limit the degree of wheel slip;

(25) ‘combined brake system’ means:

   (a) for vehicle categories L1e and L3e: a service brake system where at least two brakes on different wheels are operated by actuation of a single control;

   (b) for vehicle category L4e: a service brake system where the brakes on at least the front and rear wheels are operated by actuation of a single control (if the rear wheel and sidecar wheel are braked by the same brake system, this is regarded as the rear brake);

   (c) for vehicle categories L2e, L5e, L6e and L7e: a service brake system where the brakes on all wheels are operated by actuation of a single control;

(26) ‘automatic switching-on of lighting’ means a lighting system turned on when the ignition switch or the engine on-off switch is in the on-position;

(27) ‘pollution control device’ means those components of a vehicle that control or reduce tailpipe and/or evaporative emissions;

(28) ‘replacement pollution control device’ means a pollution control device or an assembly of such devices that is intended to replace an original pollution control device and that can be approved as a separate technical unit;

(29) ‘seating position’ means:

   (a) a saddle accommodating either the driver or a passenger, which is used by sitting in an astride position; or

   (b) any seat which can accommodate at the minimum a person with the size of an anthropomorphic manikin of a 50th percentile adult male, in the case of the driver;

(30) ‘compression ignition engine’ or ‘CI engine’ means a combustion engine working according to the principles of the ‘Diesel’ cycle;

(31) ‘positive ignition engine’ or ‘PI engine’ means a combustion engine working according to the principles of the ‘Otto’ cycle;

(32) ‘hybrid vehicle’ means a powered vehicle equipped with at least two different energy converters and two different energy storage systems (on-vehicle) for the purpose of vehicle propulsion;

(33) ‘hybrid electric vehicle’ means a vehicle that, for the purpose of mechanical propulsion, draws energy from both of the following on-vehicle sources of stored energy/power:

   (a) a consumable fuel;

   (b) a battery, capacitor, flywheel/generator or other electrical energy or power storage device.

This definition also includes vehicles which draw energy from a consumable fuel only for the purpose of recharging the electrical energy/power storage device;

(34) ‘propulsion’ means a combustion engine, an electric engine, any hybrid application or a combination of those engine types or any other engine type;

(35) ‘maximum continuous rated power’ means the maximum thirty minutes power at the output shaft of an electric engine as set out in UNECE regulation No 85;

(36) ‘maximum net power’ means the maximum power of a combustion engine available on the test bench at the end of the crankshaft or equivalent component;

(37) ‘defeat device’ means any element of design which senses temperature, vehicle speed, engine speed and/or load, transmission gear, manifold vacuum or any other parameter for the purpose of activating, modulating, delaying or deactivating the operation of any part of the emission control and exhaust after-treatment system and which reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use;

(38) ‘durability’ means the ability of components and systems to last so that the environmental performance as laid down in Article 23 and Annex V can still be met after a mileage as defined in Annex VII and so that vehicle functional safety is ensured, if the vehicle is used under normal or intended circumstances and serviced in accordance with the manufacturer’s recommendations;
(39) 'engine capacity' means:

(a) for reciprocating piston engines, the nominal engine swept volume;

(b) for rotary-piston (Wankel) engines, double the nominal engine swept volume;

(40) 'evaporative emissions' means the hydrocarbon vapours lost from the fuel storage and supply system of a motor vehicle and not those from tailpipe emissions;

(41) 'SHED test' means a vehicle test in a sealed house for evaporation determination, in which a special evaporative emission test is conducted;

(42) 'gaseous fuel system' means a system composed of gaseous fuel storage, fuel supply, metering and control components fitted to an engine in order to allow the engine to run on LPG, CNG or hydrogen as a mono-fuel, bi-fuel or multi-fuel application;

(43) 'gaseous pollutant' means the exhaust gas emissions of carbon monoxide (CO), oxides of nitrogen (NOₓ) expressed in nitrogen dioxide (NO₂) equivalent, and hydrocarbons (HC);

(44) 'tailpipe emissions' means the emission of gaseous pollutants and particulate matter at the tailpipe of the vehicle;

(45) 'particulate matter' means components of the exhaust gas which are removed from the diluted exhaust gas at a maximum temperature of 325 K (52 °C) by means of the filters described in the test procedure for verifying average tailpipe emissions;

(46) 'Worldwide harmonised Motorcycle Testing Cycle' or 'WMTC' means the world harmonised emission laboratory test cycle WMTC as defined by UNECE global technical regulation No 2;

(47) 'manufacturer' means any natural or legal person who is responsible to the approval authority for all aspects of the type-approval or authorisation process, for ensuring conformity of production and who is also responsible for market surveillance concerns for the vehicles, systems, components and separate technical units produced, whether or not the natural or legal person is directly involved in all stages of the design and construction of the vehicle, system, component or separate technical unit which is the subject of the approval process;

(48) 'manufacturer's representative' means any natural or legal person established in the Union who is duly appointed by the manufacturer to represent the manufacturer before the approval authority or the market surveillance authority and to act on the manufacturer's behalf in matters covered by this Regulation;

(49) 'importer' means any natural or legal person established in the Union who places on the market a vehicle, system, component, separate technical unit, part or equipment from a third country;

(50) 'distributor' means any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes available a vehicle, system, component, separate technical unit, part or equipment on the market;

(51) 'economic operator' means the manufacturer, the manufacturer's representative, the importer or the distributor;

(52) 'registration' means the administrative authorisation for the entry into service in road traffic of a vehicle, involving the identification of the latter and the issuing to it of a serial number, to be known as the registration number, be it permanently, temporarily or for a short period of time;

(53) 'entry into service' means the first use, for its intended purpose, in the Union, of a vehicle, system, component, separate technical unit, part or equipment;

(54) 'placing on the market' means making available a vehicle, system, component, separate technical unit, part or equipment for the first time in the Union;

(55) 'making available on the market' means any supply of a vehicle, system, component, separate technical unit, part or equipment for distribution or use on the market in the course of a commercial activity, whether in return for payment or free of charge;

(56) 'approval authority' means the authority of a Member State established or appointed by the Member State and notified to the Commission by the Member State, with competence for all aspects of the approval of a type of vehicle, system, component or separate technical unit, for the authorisation process, for issuing and, if appropriate, withdrawing or refusing approval certificates, for acting as the contact point for the approval authorities of other Member States, for designating the technical services and for ensuring that the manufacturer meets his obligations regarding the conformity of production;

(57) 'market surveillance authority' means an authority of a Member State responsible for carrying out market surveillance on its territory;
(58) ‘market surveillance’ means the activities carried out and measures taken by national authorities to ensure that vehicles, systems, components or separate technical units made available on the market comply with the requirements set out in the relevant Union harmonisation legislation and do not endanger health, safety or any other aspect of public interest protection;

(59) ‘national authority’ means an approval authority or any other authority involved in and responsible for market surveillance, border control or registration in a Member State in respect of vehicles, systems, components or separate technical units, parts or equipment;

(60) ‘technical service’ means an organisation or body designated by the approval authority of a Member State as a testing laboratory to carry out tests, or as a conformity assessment body to carry out the initial assessment and other tests or inspections, on behalf of the approval authority, it being possible for the approval authority itself to carry out those functions;

(61) ‘self-testing’ means the performance of tests in its own facilities, the registration of the test results and the submission of a report, including conclusions, to the approval authority by a manufacturer that has been designated as a technical service in order to assess compliance with certain requirements;

(62) ‘virtual testing method’ means computer simulations, including calculations, to demonstrate whether a vehicle, a system, a component or a separate technical unit fulfils the technical requirements of a delegated act adopted pursuant to Article 32(6) without requiring the use of a physical vehicle, system, component or separate technical unit;

(63) ‘on-board diagnostic system’ or ‘OBD system’ means a system which has the capability to identify the likely area of malfunction by means of fault codes stored in a computer memory;

(64) ‘vehicle repair and maintenance information’ means all information required for diagnosis, servicing, inspection, periodic monitoring, repair, re-programming or re-initialising of a vehicle and which manufacturers provide to their authorised dealers and repairers, including all subsequent amendments and supplements to such information; that information includes all information required for the fitting of parts and equipment on vehicles;

(65) ‘independent operator’ means undertakings other than authorised dealers and repairers which are directly or indirectly involved in the repair and maintenance of vehicles, in particular repairers, manufacturers or distributors of repair equipment, tools or spare parts, publishers of technical information, automobile clubs, roadside assistance operators, operators offering inspection and testing services, operators offering training for installers, manufacturers and repairers of equipment for alternative fuel vehicles;

(66) ‘authorised repairer’ means a provider of repair and maintenance services for vehicles operating within the distribution system set up by a supplier of vehicles;

(67) ‘end-of-series vehicle’ means any vehicle that is part of a stock which cannot be made available on the market or can no longer be made available on the market, registered or enter into service owing to the entry into force of new technical requirements against which it has not been approved;

(68) ‘powered two-wheeler’ or ‘PTW’ means a powered two-wheeler, including powered two-wheel cycles, two-wheel mopeds and two-wheel motorcycles;

(69) ‘powered tricycle’ means a powered three-wheel vehicle meeting the classification criteria for L5e category vehicles;

(70) ‘quadricycle’ means a four-wheel vehicle meeting the classification criteria for L6e or L7e category vehicles;

(71) ‘self-balancing vehicle’ means a vehicle concept that is based on an inherent unstable equilibrium and that needs an auxiliary control system to maintain its balance, and which includes powered one-wheel vehicles or powered two-wheel, two-track vehicles;

(72) ‘twinned wheels’ means two wheels mounted on the same axle which are considered to be one wheel, whereby the distance between the centres of their areas of contact with the ground is equal to or less than 460 mm;

(73) ‘vehicle type’ means a group of vehicles, including variants and versions of a particular category that do not differ in at least the following essential respects:

(a) category and subcategory;

(b) manufacturer;

(c) chassis, frame, sub-frame, floor pan or structure to which major components are attached;

(d) type designation given by the manufacturer;
(74) ‘variant’ means a vehicle of the same type where:

(a) the basic characteristics of the bodywork shape are the same;

(b) the propulsion and propulsion configuration are the same;

(c) if a combustion engine is part of the propulsion, the engine operating cycle is the same;

(d) the number and arrangement of cylinders are the same;

(e) the type of gearbox is the same;

(f) the difference in mass in running order between the lowest value and the highest value does not exceed 20 % of the lowest value;

(g) the difference in the maximum permissible mass between the lowest value and the highest value does not exceed 20 % of the lowest value;

(h) the difference in the cylinder capacity of the power unit (in the case of a combustion unit) between the lowest value and the highest value does not exceed 30 % of the lowest value; and

(i) the difference in the power output of the power unit between the lowest value and the highest value does not exceed 30 % of the lowest value;

(75) ‘version of a variant’ means a vehicle which consists of a combination of items shown in the information package referred to in Article 29(10);

(76) ‘external combustion engine’ means a heat engine in which combustion and expansion chambers are physically separated and where an internal working fluid is heated by combustion in an external source; heat from the external combustion expands the internal working fluid which then, by expanding and acting on the mechanism of the engine, produces motion and usable work;

(77) ‘powertrain’ means the components and systems of a vehicle that generate power and deliver it to the road surface, including the engine(s), the engine management systems or any other control module, the pollution environmental protection control devices including pollutant emissions and noise abatement systems, the transmission and its control, either a drive shaft or belt drive or chain drive, the differentials, the final drive, and the driven wheel tyre (radius);

(78) ‘mono fuel vehicle’ means a vehicle that is designed to run primarily on one type of fuel;

(79) ‘mono fuel gas vehicle’ means a mono fuel vehicle that primarily runs on LPG, NG/biomethane, or hydrogen but may also have a petrol system for emergency purposes or starting only, where the petrol tank does not contain more than 3 litres of petrol;

(80) ‘E5’ means a fuel blend of 5 % anhydrous ethanol and 95 % petrol;

(81) ‘LPG’ means liquefied petroleum gas which is composed of propane and butane liquefied by storage under pressure;

(82) ‘NG’ means natural gas containing a very high methane content;

(83) ‘biomethane’ means a renewable natural gas made from organic sources that starts out as ‘biogas’ but then is cleaned up in a process called ‘biogas to biomethane’ which removes the impurities in biogas such as carbon dioxide, siloxanes and hydrogen sulphides (H₂S);

(84) ‘bi-fuel vehicle’ means a vehicle with two separate fuel storage systems that can run part-time on two different fuels and is designed to run on only one fuel at a time;

(85) ‘bi-fuel gas vehicle’ means a bi-fuel vehicle that can run on petrol and also on either LPG, NG/biomethane or hydrogen;

(86) ‘flex fuel vehicle’ means a vehicle with one fuel storage system that can run on different blends of two or more fuels;

(87) ‘E85’ means a fuel blend of 85 % anhydrous ethanol and 15 % petrol;

(88) ‘flex fuel ethanol vehicle’ means a flex fuel vehicle that can run on petrol or a mixture of petrol and ethanol up to an 85 % ethanol blend;

(89) ‘H₂NG’ means a fuel blend of hydrogen and natural gas;

(90) ‘flex fuel H₂NG vehicle’ means a flex fuel vehicle that can run on different blends of hydrogen and NG/biomethane;

(91) ‘flex fuel biodiesel vehicle’ means a flex fuel vehicle that can run on mineral diesel or a blend of mineral diesel and biodiesel;

(92) ‘B5’ means a fuel blend of up to 5 % biodiesel and 95 % petroleum diesel;
(93) ‘biodiesel’ means a vegetable oil- or animal fat-based diesel fuel consisting of long-chain alkyl esters produced in a sustainable way;

(94) ‘pure electric vehicle’ means a vehicle powered by:

(a) a system consisting of one or more electric energy storage devices, one or more electric power conditioning devices and one or more electric machines that convert stored electric energy to mechanical energy delivered at the wheels for propulsion of the vehicle;

(b) an auxiliary electric propulsion fitted to a vehicle designed to pedal;

(95) ‘hydrogen fuel cell vehicle’ means a vehicle powered by a fuel cell that converts chemical energy from hydrogen into electric energy, for propulsion of the vehicle;

(96) ‘R-point’ or ‘seating reference point’ means a design point defined by the vehicle manufacturer for each seating position and established with respect to the three-dimensional reference system.

References in this Regulation to requirements, procedures or arrangements laid down in this Regulation shall be read as references to such requirements, procedures or arrangements laid down in this Regulation and in the delegated and implementing acts adopted pursuant to this Regulation.

Article 4

Vehicle categories

1. L-category vehicles comprise powered two-, three- and four-wheel vehicles as categorised in this Article and Annex I, including powered cycles, two- and three-wheel mopeds, two- and three-wheel motorcycles, motorcycles with side-cars, light and heavy on-road quads, and light and heavy quadri-mobiles.

2. For the purposes of this Regulation, the following vehicle categories and subcategories shall apply, as described in Annex I:

(a) category L1e vehicle (light two-wheel powered vehicle), sub-categorised into:

   (i) L1e-A vehicle (powered cycle);

   (ii) L1e-B vehicle (two-wheel moped);

(b) category L2e vehicle (three-wheel moped) sub-categorised into:

   (i) L2e-P vehicle (three-wheel moped designed for passenger transport);

(c) category L3e vehicle (two-wheel motorcycle), sub-categorised by:

   (i) motorcycle performance (1), further sub-categorised into:

      — L3e-A1 vehicle (low-performance motorcycle),

      — L3e-A2 vehicle (medium-performance motorcycle),

      — L3e-A3 vehicle (high-performance motorcycle);

   (ii) special use:

      — L3e-A1E, L3e-A2E or L3e-A3E enduro motorcycle,

      — L3e-A1T, L3e-A2T or L3e-A3T trial motorcycle;

(d) category L4e vehicle (two-wheel motorcycle with side-car);

(e) category L5e vehicle (powered tricycle), sub-categorised into:

   (i) L5e-A vehicle (tricycle); vehicle mainly designed for passenger transport;

   (ii) L5e-B vehicle (commercial tricycle); utility tricycle exclusively designed for the carriage of goods;

(f) category L6e vehicle (light quadricycle), sub-categorised into:

   (i) L6e-A vehicle (light on-road quad);

   (ii) L6e-B vehicle (light quadri-mobile), further sub-categorised into:

      — L6e-BU vehicle (light quadri-mobile for utility purposes): utility vehicle exclusively designed for the carriage of goods,

      — L6e-BP vehicle (light quadri-mobile for passenger transport): vehicle mainly designed for passenger transport;

(g) category L7e vehicle (heavy quadricycles), sub-categorised into:

1 Directive 2006/126/EC of the European Parliament and of the Council of 20 December 2006 on driving licences (OJ L 403, 30.12.2006, p. 18); see performance definitions, categories A1 and A2, in points (a) and (b) of Article 4(3).
L7e-A vehicle (heavy on-road quad) sub-categorised into:
- L7e-A1: A1 on-road quad,
- L7e-A2: A2 on-road quad;

L7e-B vehicle (heavy all terrain quad), subcategorised into:
- L7e-B1: all terrain quad,
- L7e-B2: side-by-side buggy;

L7e-C vehicle (heavy quadri-mobile), sub-categorised into:
- L7e-CU vehicle (heavy quadri-mobile for utility purposes): utility vehicle exclusively designed for the carriage of goods,
- L7e-CP vehicle (heavy quadri-mobile for passenger transport): vehicle mainly designed for passenger transport.

3. The L-category vehicles listed in paragraph 2 are further classified according to the propulsion of the vehicle:

(a) propelled with an internal combustion engine:
   - compression ignition (CI),
   - positive ignition (PI);

(b) propelled with an external combustion engine, a turbine or a rotary piston engine, whereby, for the purpose of complying with environmental and functional safety requirements, a vehicle equipped with such a propulsion is considered the same as a vehicle propelled with a PI internal combustion engine;

(c) propelled by an engine that runs on pre-compressed air and does not emit higher levels of pollutants and/or inert gases than the levels present in ambient air, whereby, with regard to functional safety requirements and fuel storage and supply, such a vehicle is considered to be a vehicle operated on gaseous fuel;

(d) propelled with an electric engine;

(e) a hybrid vehicle that combines any propulsion configuration referred to in points (a), (b), (c) or (d) of this paragraph or any multiple combination of these propulsion configurations including multiple combustion and/or electric engines.

4. As regards the classification of L-category vehicles in paragraph 2, a vehicle that does not come under a certain category because it exceeds at least one of the criteria stipulated for that category falls into the next category whose criteria it meets. This applies to the following groups of categories and subcategories:

(a) category L1e with its subcategories L1e-A and L1e-B and category L3e with its subcategories L3e-A1, L3e-A2 and L3e-A3;

(b) category L2e and category L5e with its subcategories L5e-A and L5e-B;

(c) category L6e with its subcategories L6e-A and L6e-B and category L7e with its subcategories L7e-A, L7e-B and L7e-C;

(d) any other logical sequence of categories and/or subcategories proposed by the manufacturer and approved by the approval authority.

5. Notwithstanding the (sub-)classification criteria set out in paragraphs 1 to 4 of this Article and in Annex I, additional subcategories shall apply as set out in Annex V, in order to harmonise environmental test procedures at the international level by referring to UNECE regulations and UNECE global technical regulations.

Article 5

Mass in running order determination

1. The mass in running order of an L-category vehicle shall be determined by measuring the mass of the unladen vehicle ready for normal use and shall include the mass of:

(a) liquids;

(b) standard equipment in accordance with the manufacturer's specifications;

(c) 'fuel' in the fuel tanks that shall be filled to at least 90 % of their capacities.

For the purposes of this point:

(i) if a vehicle is propelled with a 'liquid fuel' this shall be considered as 'fuel';

(ii) if a vehicle is propelled with a liquid 'fuel/oil mixture':
   - if fuel to propel the vehicle and lubrication oil are pre-mixed then this 'pre-mixture' shall be considered as 'fuel',
   - if fuel to propel the vehicle and lubrication oil are stored separately then only 'fuel' propelling the vehicle shall be considered as 'fuel'; or

(iii) if a vehicle is propelled by a gaseous fuel, a liquefied gaseous fuel or is running on compressed air, the mass of 'fuel' in the gaseous fuel tanks may be set to 0 kg;
(d) the bodywork, the cabin, the doors; and

(e) the glazing, the coupling, the spare wheels as well as the tools.

2. The mass in running order of an L-category vehicle shall exclude the mass of:

(a) the driver (75 kg) and passenger (65 kg);

(b) the machines or equipment installed on the load platform area;

(c) in the case of a hybrid or pure electric vehicle, the propulsion batteries;

(d) in the case of mono-fuel, bi-fuel or multi-fuel vehicles, a gaseous fuel system as well as storage tanks for gaseous fuel; and

(e) in the case of pre-compressed air propulsion, storage tanks to store compressed air.

CHAPTER II
GENERAL OBLIGATIONS

Article 6
Obligations of Member States

1. Member States shall establish or appoint the approval authorities competent in matters concerning approval and the market surveillance authorities competent in matters concerning market surveillance in accordance with this Regulation. Member States shall notify the Commission of the establishment and appointment of such authorities.

The notification of the approval and market surveillance authorities shall include their name, address, including electronic address, and area of responsibility. The Commission shall publish on its website a list and details of the approval authorities.

2. Member States shall permit the placing on the market, registration or entry into service of only such vehicles, systems, components or separate technical units that satisfy the requirements of this Regulation.

3. Member States shall not prohibit, restrict or impede the placing on the market, registration or entry into service of vehicles, systems, components or separate technical units on grounds related to aspects of their construction and functioning covered by this Regulation, if they satisfy its requirements.

4. Member States shall organise and carry out market surveillance and controls of vehicles, systems, components or separate technical units entering the market in accordance with Chapter III of Regulation (EC) No 765/2008.

Article 7
Obligations of approval authorities

1. Approval authorities shall ensure that manufacturers applying for type-approval comply with their obligations under this Regulation.

2. Approval authorities shall approve only such vehicles, systems, components or separate technical units that satisfy the requirements of this Regulation.

Article 8
Market surveillance measures

1. For type-approved vehicles, systems, components and separate technical units, market surveillance authorities shall perform, on an adequate scale, appropriate documentary checks, taking into account established principles of risk assessment, complaints and other information.

Market surveillance authorities may require economic operators to make such documentation and information available as is deemed necessary for the purpose of carrying out their activities.

Where economic operators present certificates of conformity, market surveillance authorities shall take due account of such certificates.

2. For parts and equipment other than those covered in paragraph 1 of this Article, Article 19(1) of Regulation (EC) No 765/2008 shall apply in its entirety.

Article 9
Obligations of manufacturers

1. Manufacturers shall ensure that when their vehicles, systems, components or separate technical units are placed on the market or are entering into service, they are manufactured and approved in accordance with the requirements set out in this Regulation and the delegated and implementing acts adopted pursuant to this Regulation.

2. In the case of multi-stage type-approval, each manufacturer shall be responsible for the approval and conformity of production of the systems, components or separate technical units added at the stage of vehicle completion handled by the manufacturer. Any manufacturer who modifies components or systems already approved at earlier stages shall be responsible for the approval and conformity of production of the modified components and systems.

3. Manufacturers who modify the incomplete vehicle in such a manner that it qualifies as a different category of vehicle, with the consequence that the legal requirements already assessed in a previous stage of approval have changed, shall also be responsible for compliance with the requirements applicable to the category of vehicles for which the modified vehicle qualifies.
4. For the purposes of approval of vehicles, systems, components or separate technical units covered by this Regulation, manufacturers established outside the Union shall appoint a single representative established within the Union to represent them before the approval authority.

5. Manufacturers established outside the Union shall furthermore appoint a single representative established within the Union for the purposes of market surveillance, which may be the representative referred to in paragraph 4 or an additional representative.

6. Manufacturers shall be responsible to the approval authority for all aspects of the approval process and for ensuring conformity of production, whether or not they are directly involved in all stages of the construction of a vehicle, system, component or separate technical unit.

7. In accordance with this Regulation and the delegated and implementing acts adopted pursuant to this Regulation, manufacturers shall ensure that procedures are in place for series production to remain in conformity with the approved type. Changes in design of a vehicle, system, component or separate technical unit or characteristics and changes in the requirements to which a vehicle, system, component or separate technical unit is declared to conform shall be taken into account in accordance with Chapter VI.

8. In addition to the statutory marking and type-approval marks fixed to their vehicles, components or separate technical units in accordance with Article 39, manufacturers shall indicate their name, registered trade name or registered trade mark and the address in the Union at which they can be contacted on their vehicles, components or separate technical units made available on the market or, where that is not possible, on the packaging or in a document accompanying the component or separate technical unit.

9. Manufacturers shall ensure that, while a vehicle, system, component or separate technical unit is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in this Regulation.

Article 10
Obligations of manufacturers concerning their products that are not in conformity or that present a serious risk

1. Manufacturers who consider or have reason to believe that their vehicle, system, component or separate technical unit that has been placed on the market or entered into service is not in conformity with this Regulation or the delegated and implementing acts adopted pursuant to this Regulation shall immediately take the corrective measures necessary to bring that vehicle, system, component or separate technical unit into conformity, to withdraw it or to recall it, as appropriate.

The manufacturer shall immediately inform the approval authority which granted the approval, giving details, in particular, of the non-conformity and of any corrective measures taken.

2. Where the vehicle, system, component, separate technical unit, part or equipment presents a serious risk, manufacturers shall immediately inform the approval and market surveillance authorities of the Member States in which the vehicle, system, component, separate technical unit, part or equipment was made available on the market or had entered into service to that effect, giving details, in particular, of the non-conformity and any corrective measures taken.

3. Manufacturers shall keep the information package referred to in Article 29(10) and in addition the vehicle manufacturer shall keep a copy of the certificates of conformity referred to in Article 38 at the disposal of the approval authorities for a period of 10 years after the placing on the market of a vehicle and for a period of five years after the placing on the market for a system, component or separate technical unit.

4. Manufacturers shall, following a reasoned request from a national authority, provide that authority through the approval authority with a copy of the EU type-approval certificate or the authorisation referred to in Article 51(1) demonstrating conformity of the vehicle, system, component or separate technical unit, in a language which can be easily understood by that authority. Manufacturers shall cooperate with the national authority on any action taken in accordance with Article 20 of Regulation (EC) No 765/2008 to eliminate the risks posed by their vehicles, systems, components or separate technical units which have been placed on the market, registered or entered into service.

Article 11
Obligations of manufacturer’s representatives concerning market surveillance

The manufacturer's representative for market surveillance shall perform the tasks specified in the mandate received from the manufacturer. That mandate shall allow a representative to do at least the following:

(a) have access to the information folder referred to in Article 27 and the certificates of conformity referred to in Article 38 so that they can be placed at the disposal of the approval authorities for a period of 10 years after the placing on the market of a vehicle and for a period of five years after the placing on the market for a system, component or separate technical unit;

(b) following a reasoned request from an approval authority, provide that authority with all the information and documentation necessary to demonstrate the conformity of production of a vehicle, system, component or separate technical unit;

(c) cooperate with the approval or market surveillance authorities, at their request, on any action taken to eliminate the serious risk posed by vehicles, systems, components, separate technical units, parts or equipment covered by their mandate.
Article 12

Obligations of importers

1. Importers shall place on the market only compliant vehicles, systems, components or separate technical units which have either received EU type-approval or which fulfil the requirements for national approval, or parts or equipment entirely subject to the requirements of Regulation (EC) No 765/2008.

2. Before placing on the market a type-approved vehicle, system, component or separate technical unit, importers shall ensure that there is an information package complying with Article 29(10), and that the system, component or separate technical unit bears the required type-approval mark and complies with Article 9(8). In the case of a vehicle, the importer shall verify that the vehicle is accompanied by the required certificate of conformity.

3. Where importers consider or have reason to believe that a vehicle, system, component or separate technical unit, part or equipment is not in conformity with the requirements of this Regulation, and in particular that it does not correspond to its type-approval, they shall not place on the market, allow to enter into service or register the vehicle, system, component or separate technical unit until it has been brought into conformity. Furthermore, where they consider or have reason to believe that the vehicle, system, component, separate technical unit, part or equipment presents a serious risk, they shall inform the manufacturer and the market surveillance authorities. For type-approved vehicles, systems, components and separate technical units they shall also inform the approval authority that has granted the approval to that effect.

4. Importers shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the vehicle, system, component, separate technical unit, part or equipment, or, where this is not possible on its packaging or in a document accompanying the system, component, separate technical unit, part or equipment.

5. Importers shall ensure that the vehicle, system, component or separate technical unit is accompanied by instructions and information, as required in accordance with Article 55, in the official language or languages of the Member States concerned.

6. Importers shall ensure that, while a vehicle, system, component or separate technical unit is under their responsibility, storage or transport conditions do not jeopardise its compliance with the requirements set out in this Regulation.

7. When deemed appropriate with regard to the serious risks presented by a vehicle, system, component, separate technical

Article 13

Obligations of importers concerning their products that are not in conformity or that present a serious risk

1. Importers who consider or have reason to believe that a vehicle, system, component or separate technical unit which they have placed on the market is not in conformity with this Regulation shall immediately take the corrective measures necessary to bring that vehicle, system, component or separate technical unit into conformity, to withdraw it or to recall it, as appropriate.

2. Where a vehicle, system, component, separate technical unit, part or equipment presents a serious risk, importers shall immediately inform the manufacturer and the approval and market surveillance authorities of the Member States in which they have placed it on the market. The importer shall also inform them of any action taken and give details, in particular, of the serious risk and any corrective measures taken by the manufacturer.

3. Importers shall, for a period of 10 years after the placing on the market of the vehicle and for a period of five years as from the placing on the market for a system, component or separate technical unit, keep a copy of the certificate of conformity at the disposal of the approval and market surveillance authorities and ensure that the information package as referred to in Article 29(10) can be made available to those authorities, upon request.

4. Importers shall, following a reasoned request from a national authority, provide it with all the information and documentation necessary to demonstrate the conformity of a vehicle, system, component or separate technical unit in a language which can be easily understood by that authority. Importers shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by a vehicle, system, component, separate technical unit, part or equipment which they have placed on the market.

Article 14

Obligations of distributors

1. When making a vehicle, system, component, separate technical unit, part or equipment available on the market, distributors shall act with due care in relation to the requirements of this Regulation.
2. Before making available on the market, registration or entry into service of a vehicle, system, component or separate technical unit, distributors shall verify that the vehicle, system, component or separate technical unit bears the required statutory marking or type-approval mark, that it is accompanied by the required documents and by instructions and safety information in the official language or languages of the Member State in which the vehicle, system, component or separate technical unit is to be made available on the market, and that the importer and the manufacturer have complied with the requirements set out in Article 12(2) and (4) and Article 39(1) and (2).

3. Distributors shall ensure that, while a vehicle, system, component or separate technical unit is not in conformity with the requirements set out in this Regulation, they shall not make available on the market, register or enter into service the vehicle, system, component or separate technical unit until it has been brought into conformity.

2. Distributors who consider or have reason to believe that a vehicle, system, component or separate technical unit which they have made available on the market or registered or for which they are responsible for the entry into service, is not in conformity with this Regulation, shall inform the manufacturer or the manufacturer’s representative to ensure that the corrective measures necessary to bring that vehicle, system, component or separate technical unit into conformity or to recall it, if appropriate, are taken in accordance with Article 10(1) or Article 13(1).

3. Where the vehicle, system, component, separate technical unit, part or equipment presents a serious risk, distributors shall immediately inform the manufacturer, the importer and the approval and market surveillance authorities of the Member States in which they are responsible for the entry into service, is not in conformity with this Regulation, shall inform the manufacturer or the manufacturer’s representative to ensure that the corrective measures necessary to bring that vehicle, system, component or separate technical unit into conformity or to recall it, if appropriate, are taken in accordance with Article 10(1) or Article 13(1).

4. Distributors shall, following a reasoned request from a national authority, ensure that the manufacturer provide the national authority with the information specified in Article 10(4) or that the importer provide the national authority with the information specified in Article 13(3). They shall cooperate with that authority, at its request, on any action taken in accordance with Article 20 of Regulation (EC) No 765/2008 to eliminate the risks posed by the vehicle, system, component, separate technical unit, part or equipment which they have made available on the market.

Article 16
Cases in which obligations of manufacturers apply to importers and distributors
An importer or distributor shall be considered a manufacturer for the purposes of this Regulation and shall be subject to the obligations of the manufacturer under Articles 9 to 11, where the importer or distributor makes available on the market, registers or is responsible for the entry into service of a vehicle, system, component or separate technical unit under its name or trademark or modifies a vehicle, system, component or separate technical unit in such a way that compliance with the applicable requirements may be affected.

Article 17
Identification of economic operators
Economic operators shall, on request, identify the following to the approval authorities and market surveillance authorities, for a period of 10 years for a vehicle and for a period of five years for a system, component, separate technical unit, part or equipment:

(a) any economic operator who has supplied them with a vehicle, system, component, separate technical unit, part or equipment;

(b) any economic operator to whom they have supplied a vehicle, system, component, separate technical unit, part or equipment.

CHAPTER III
SUBSTANTIVE REQUIREMENTS

Article 18
General substantive requirements
1. L-category vehicles and systems, components and separate technical units intended for such vehicles shall comply with the requirements listed in Annexes II to VIII applicable to the relevant vehicle (sub-)categories.

2. L-category vehicles or their systems, components or separate technical units, whose electromagnetic compatibility is covered by the delegated acts referred to in paragraph 3 of this Article regarding vehicle construction and the implementing acts adopted pursuant to this Regulation, shall not be subject to Directive 2004/108/EC of the European Parliament and of the Council of 13 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility (1).

3. In order to complete the L-category vehicle type-approval requirements laid down in this Regulation, the Commission shall adopt delegated acts in accordance with Article 75 concerning the detailed technical requirements and test procedures as summarised in Annex II (A), (B) and (C), thereby ensuring a high level of safety and environmental protection as defined in the relevant provisions of this Regulation. The first such delegated acts shall be adopted by 31 December 2014.

**Article 19**

**Prohibition of defeat devices**

The use of defeat devices that reduce the effectiveness of safety, electromagnetic compatibility, the on-board diagnostics system, sound abatement or pollutant emission abatement systems shall be prohibited. An element of design shall not be considered a defeat device if any of the following conditions is met:

(a) the need for the device is justified in terms of protecting the engine against damage or accident and ensuring safe operation of the vehicle;

(b) the device does not function beyond the requirements of engine starting;

(c) the operating conditions are included to a substantial extent in the test procedures for verifying if the vehicle complies with this Regulation and with the delegated and implementing acts adopted pursuant to this Regulation.

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**Article 20**

**Measures for manufacturers regarding modifications to the powertrain of vehicles**

1. Vehicle manufacturers shall equip L-category vehicles with the exception of subcategories L3e-A3 and L4e-A3, with designated features to prevent tampering of a vehicle’s powertrain, by means of a series of technical requirements and specifications with the aim:

(a) to prevent modifications that may prejudice safety, in particular by increasing vehicle performance through tampering with the powertrain in order to increase the maximum torque and/or power and/or maximum design vehicle speed which have been duly established during the type-approval procedure as followed by the manufacturer of the vehicle; and/or

(b) to prevent damage to the environment.

2. The Commission shall adopt delegated acts in accordance with Article 75 concerning the specific requirements regarding the measures referred to in paragraph 1 and in order to facilitate compliance with paragraph 4. The first such delegated acts shall be adopted by 31 December 2014.

3. After a modification of the powertrain, a vehicle shall comply with the technical requirements of the initial vehicle category and subcategory, or, if applicable, the new vehicle category and subcategory, which were in force when the original vehicle was placed on the market, registered or entered into service, including the latest amendments to the requirements.

Where the vehicle manufacturer designs the powertrain of a vehicle type in such a way as to allow for its modification so that a vehicle no longer conforms to the approved type, but would correspond to an additional variant or version, the vehicle manufacturer shall include the relevant information for each variant or version so created in the application and each variant or version shall be explicitly type-approved. If the modified vehicle falls into a new category or subcategory, application shall be made for a new type-approval.

4. Without prejudice to paragraph 1, in order to avoid modifications or adjustments with adverse effects on the functional safety or on the environmental performance of the vehicle, the manufacturer shall endeavour, through the use of best engineering practice, to prevent such modifications or adjustments from being technically possible, unless such modifications or adjustments are explicitly declared and contained in the information folder and thus covered by the type-approval.

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**Article 21**

**General requirements of on-board diagnostic systems**

1. L-category vehicles shall be equipped with an OBD system which complies with the functional requirements and test procedures as laid down in the delegated acts adopted pursuant to paragraph 5 and as from the application dates as set out in Annex IV.

2. From the dates set out in point 1.8.1 of Annex IV, vehicle (sub-)categories L3e, L4e, L5e-A, L6e-A and L7e-A shall be equipped with an OBD stage 1 system which monitors for any electric circuit and electronics failure of the emission control system and reports those failures which result in the emission thresholds as laid down in Annex VI (B1) being exceeded.

3. From the dates set out in point 1.8.2 of Annex IV, vehicle (sub-)categories L3e to L7e shall be equipped with an OBD stage I system which monitors for any electric circuit and electronics failure of the emission control system and which is triggered when the emission thresholds as laid down in Annex VI (B2) are being exceeded. OBD stage I systems for these vehicle (sub-)categories shall also report the triggering of any operating mode which significantly reduces engine torque.

4. From the dates set out in point 1.8.3 of Annex IV and subject to Article 23(5), vehicle (sub-)categories L3e, L5e-A L6e-A and L7e-A shall in addition be equipped with an OBD stage II system which monitors and reports emission control system failures and degradation which results in the OBD emission thresholds as laid down in Annex VI (B2) being exceeded.

5. In order to harmonise the OBD system reporting of functional safety or emission control system faults and facilitate effective and efficient repair of a vehicle, the Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the detailed technical requirements related to on-board diagnostics, including functional OBD requirements and test procedures for the subjects listed in paragraphs 1 to 4 and as referred to in Annex II (O) 11 and test type VIII referred to in Annex V.
**Article 22**

**Requirements for the functional safety of vehicles**

1. Manufacturers shall ensure that vehicles are designed, constructed and assembled so as to minimise the risk of injury to the vehicle occupants and to other road users.

2. The manufacturer shall ensure that the functional safety of the vehicle shall endure throughout the normal life of the vehicle if used under normal conditions and serviced in accordance with the manufacturer’s recommendations. The manufacturer shall provide a statement in the information folder confirming that the endurance of the systems, parts and equipment critical for functional safety is ensured through appropriate testing and use of good engineering practice.

3. Manufacturers shall ensure that vehicles, systems, components and separate technical units comply with the relevant requirements set out in Annexes II and VIII and comply with the test procedures and performance requirements as laid down in a delegated act adopted pursuant to paragraph 5.

4. Components of vehicles, whose hazards of an electrical nature are covered by the delegated or implementing acts adopted pursuant to this Regulation, shall not be subject to Directive 2006/95/EC of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (1).

5. In order to ensure that a high level of functional safety is attained, the Commission shall adopt delegated acts in accordance with Article 75 on the specific requirements listed in Annex II (B) regarding the functional safety of vehicles and where applicable, base itself on the enhanced functional safety requirements laid down in Annex VIII. The first such delegated acts shall be adopted by 31 December 2014.

6. The Commission shall adopt in a second step by 31 December 2020 a delegated act in accordance with Article 75, in order to harmonise the normal life requirements and tests to ensure vehicle structure integrity as listed in Annex II (B) 17.

7. The Commission may adopt implementing acts in order to lay down a template for the manufacturer’s statement. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2).


**Article 23**

**Requirements for environmental performance**

1. Manufacturers shall ensure that vehicles are designed, constructed and assembled so as to minimise the impact on the environment. Manufacturers shall ensure that type-approved vehicles meet the environmental performance requirements as set out in Annexes II, V and VI and within the durability mileage as set out in Annex VII.

2. Manufacturers shall ensure that vehicles, systems, components and separate technical units comply with the test procedures and test requirements as set out in Annex V within the application dates set out in Annex IV to be laid down in a delegated act adopted pursuant to paragraph 12 of this Article.

3. Manufacturers shall ensure that type-approval requirements for verifying durability requirements are met. At the choice of the manufacturer one of the following durability test procedures shall be used to provide evidence to the approval authority that the environmental performance of a type-approved vehicle is durable:

   (a) actual durability testing with full mileage accumulation:

   The test vehicles shall physically accumulate the full distance set out in Annex VII (A) and shall be tested in accordance with the procedure laid down in test type V as set out in the delegated act adopted pursuant to paragraph 12 of this Article. The emission test results up to and including the full distance set out in Annex VII (A) shall be lower than the environmental limits set out in Annex VI (A);

   (b) actual durability testing with partial mileage accumulation:

   The test vehicles shall physically accumulate a minimum of 50% of the full distance set out in Annex VII (A) and shall be tested in accordance with the procedure laid down in test type V as set out in the delegated act adopted pursuant to paragraph 12 of this Article. As specified in that act, the test results shall be extrapolated up to the full distance set out in Annex VII (A). Both the test results and the extrapolated results shall be lower than the environmental limits set out in Annex VI (A);

   (c) mathematical durability procedure:

   For each emission constituent, the product of the multiplication of the deterioration factor set out in Annex VII (B) and the environmental test result of a vehicle which has accumulated more than 100 km after it was first started at the end of the production line shall be lower than the environmental limit set out in Annex VI (A).
4. By 1 January 2016, the Commission shall carry out a comprehensive environmental effect study. The study shall evaluate the air quality and the share of pollutants contributed by L-category vehicles and shall cover the requirements of test types I, IV, V, VII and VIII listed in Annex V. It shall collate and evaluate the latest scientific data, scientific research findings, modelling and cost efficiency with a view to establishing definitive policy measures by confirmation and final establishment of the Euro 5 enforcement laid down in Annex IV and the Euro 5 environmental requirements laid down in Annex V, in Annex VI (A2), (B2) and (C2) and in Annex VII concerning Euro 5 durability mileages and deterioration factors.

5. Based on the findings referred to in paragraph 4, the Commission shall by 31 December 2016 present to the European Parliament and the Council a report on the following:

(a) the enforcement dates of the Euro 5 level referred to in Annex IV;

(b) the Euro 5 emission limits referred to in Annex VI (A2) and the OBD thresholds in Annex VI (B2);

(c) that all new types of vehicles in (sub-)categories L3e, L5e, L6e-A and L7e-A shall, in addition to OBD stage I, also be equipped with OBD stage II at the Euro 5 level;

(d) the durability mileages for the Euro 5 level referred to in Annex VII (A) and the deterioration factors for the Euro 5 level referred to in Annex VII (B).

The Commission shall make any appropriate legislative proposals in the light of that report.

6. Basing itself on the results of the environmental effect study, the Commission shall adopt a delegated act in accordance with Article 75 determining which of the (sub-)categories L1e-A, L1e-B, L2e, L5e-B, L6e-B, L7e-B and L7e-C for the Euro 5 level are to be subject to SHED testing or to fuel tank and tubing permeation testing, with the test limits listed in Annex VI (C2).

7. Manufacturers shall ensure that L-category vehicles comply with the applicable test requirements regarding environmental performance for approval and extensions as laid down in Annex V (A).

8. With regards to test type I, the relevant emission limit for L3e-AxEx (Enduro, x = 1, 2 or 3) and L3e-AxTx (Trial, x = 1, 2 or 3) motorcycles shall be the sum of L2 (THC) and L3 (NOx) of Annex VI (A). The emission test results (NOx + THC) shall be smaller than or equal to this limit (L2 + L3).

9. Vehicles of category L4e shall meet the environmental requirements laid down in Annex V for vehicles of category L3e, whereby for test types I, IV, VII and VIII of Annex V either the complete assembly of the base powered vehicle is tested with the sidecar being fitted or only the base powered vehicle without the side car being fitted as appropriate.

10. Manufacturers shall ensure that all replacement pollution control devices placed on the market or at the entry into service in the Union, are type-approved in accordance with this Regulation.

11. The requirements referred to in paragraphs 1 to 10 shall apply to vehicles, systems, components and separate technical units in accordance with Annex II.

12. In order to ensure a high level of environmental protection, the Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the detailed technical specifications on environmental requirements for the subjects referred to in paragraphs 1, 2, 3, 6 and 7 of this Article including test procedures.

**Article 24**

**Additional environmental requirements with regards to greenhouse gas emissions, fuel consumption and electric energy consumption and electric range**

1. CO₂ (carbon dioxide) emissions shall be determined in the applicable laboratory emission test cycle by the manufacturer and reported by the manufacturer to the approval authority. Fuel consumption and/or electric energy consumption and electric range shall be either calculated based on the type-approval emission laboratory test results or measured, witnessed by the technical service and reported to the approval authority.

2. The CO₂ measurement result, the calculated or measured fuel consumption, electric energy consumption and electric range shall be included in the information folder as specified in the implementing act referred to in Article 27(4), and the relevant information shall also be indicated on the certificate of conformity.

In addition to the indication on the certificate of conformity, the manufacturers shall ensure that the CO₂ emission, fuel consumption, electric energy consumption and electric range data are provided to the buyer of the vehicle at the time of purchase of a new vehicle, in a format which they consider appropriate.
3. The Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning test type VII test procedure requirements regarding CO₂ emission measurement, fuel consumption, electric energy consumption and electric range calculation and measurement methods.

CHAPTER IV
EU TYPE-APPROVAL PROCEDURES

Article 25
Procedures for EU type-approval

1. When applying for a whole-vehicle type-approval, the manufacturer may choose one of the following procedures:

(a) step-by-step type-approval;

(b) single-step type-approval;

(c) mixed type-approval.

In addition, the manufacturer of vehicle categories laid down in paragraph 5 may choose multi-stage type-approval.

Only the single-step type-approval procedure is applicable for the type-approval of systems, components or separate technical units.

2. Step-by-step type-approval shall consist of the step-by-step collection of the whole set of EU type-approval certificates for the systems, components and separate technical units forming part of the vehicle, and which leads, at the final stage, to the whole-vehicle type-approval.

3. Single-step type-approval shall consist of the approval of a vehicle as a whole by means of a single operation.

4. Mixed type-approval is a step-by-step type-approval procedure for which one or more system approvals are achieved during the final stage of the approval of the whole vehicle, without it being necessary to issue the EU type-approval certificates for those systems.

5. In a multi-stage type-approval procedure, one or more approval authorities certify that, depending on the state of completion, an incomplete or completed type of vehicle satisfies the relevant administrative provisions and technical requirements of this Regulation.

Multi-stage type-approval shall be granted in respect of a type of incomplete or completed vehicle which conforms to the particulars in the information folder provided for in Article 27 and which meets the technical requirements laid down in the relevant acts listed in Annex II, having regard to the state of completion of the vehicle.

6. The type-approval for the final stage of completion shall be granted only after the approval authority has verified that the vehicle type-approved at the final stage meets at that time all applicable technical requirements. That shall include a documentary check of all requirements covered by a type-approval for an incomplete vehicle granted in the course of a multistage procedure, even where granted for a different (sub-)category of vehicle.

The multi-stage approval referred to in the second subparagraph of paragraph 1 shall apply only to vehicles of sub-categories L2e -U, L4e, L5e-B, L6e-BU and L7e-CU.

7. The choice of approval procedure shall not affect the applicable substantive requirements with which the approved vehicle type has to comply at the time of issuing of the whole-vehicle type-approval.

8. The Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning detailed arrangements with regard to type-approval procedures. The first such delegated acts shall be adopted by 31 December 2014.

Article 26
Application for type-approval

1. The manufacturer shall submit the application for type-approval to the approval authority.

2. Only one application may be submitted in respect of a particular type of vehicle, system, component or separate technical unit and it may be submitted in only one Member State.

3. A separate application shall be submitted for each type to be approved.

Article 27
Information folder

1. The applicant shall provide the approval authority with an information folder.

2. The information folder shall include the following:

(a) an information document;

(b) all data, drawings, photographs and other information;

(c) for vehicles, an indication of the procedure(s) chosen in accordance with Article 25(1);

(d) any additional information requested by the approval authority in the context of the application procedure.

3. The information folder may be supplied on paper or in an electronic format that is accepted by the technical service and by the approval authority.
4. The Commission shall lay down templates for the information document and for the information folder by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

Article 28
Specific requirements for information to be provided in the application for type-approval under different procedures

1. An application for step-by-step type-approval shall be accompanied by an information folder in accordance with Article 27 and by the complete set of type-approval certificates required pursuant to each of the applicable acts listed in Annex II.

In the case of the type-approval of a system, component or separate technical unit, pursuant to the applicable acts listed in Annex II, the approval authority shall have access to the related information folder until such time as the approval is either issued or refused.

2. An application for single-step type-approval shall be accompanied by an information folder provided for in Article 27 containing the relevant information in accordance with the implementing acts adopted pursuant to this Regulation, in relation to those applicable acts.

3. In the case of a mixed type-approval procedure, the information folder shall be accompanied by one or more type-approval certificates required pursuant to each of the applicable acts listed in Annex II and shall include, in so far as no type-approval certificate is presented, the relevant information in accordance with the implementing acts adopted pursuant to this Regulation, in relation to those applicable acts.

4. Without prejudice to paragraphs 1, 2 and 3, the following information shall be supplied for the purposes of multi-stage type-approval:

(a) in the first stage, those parts of the information folder and the EU type-approval certificates which are relevant to the state of completion of the base vehicle;

(b) in the second and subsequent stages, those parts of the information folder and the EU type-approval certificates which are relevant to the current stage of construction, together with a copy of the EU type-approval certificate for the vehicle issued at the preceding stage of construction and full details of any changes or additions that the manufacturer has made to the vehicle.

The information specified in points (a) and (b) of the first subparagraph of this paragraph may be supplied in accordance with paragraph 3.

5. The approval authority may, by reasoned request, require the manufacturer to supply any additional information needed to enable a decision to be taken on which tests are required or to facilitate the execution of those tests.

CHAPTER V
CONDUCT OF EU TYPE-APPROVAL PROCEDURES

Article 29
General provisions

1. Approval authorities shall grant an EU type-approval only after verifying the conformity of production arrangements referred to in Article 33 and the compliance of the type of vehicle, system, component or separate technical unit with the applicable requirements.

2. EU type-approvals shall be granted in accordance with this Chapter.

3. If an approval authority finds that a type of vehicle, system, component or separate technical unit, though conforming to the required provisions, presents a serious risk to safety or may seriously harm the environment or public health, it may refuse to grant EU type-approval. In that case, it shall immediately send to the approval authorities of the other Member States and the Commission a detailed file explaining the reasons for its decision and setting out the evidence for its findings.

4. EU type-approval certificates shall be numbered in accordance with a harmonised system laid down by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

5. The approval authority shall, within one month of issuing the EU type-approval certificate, send to the approval authorities of the other Member States a copy of the EU vehicle type-approval certificate, together with the attachments, for each type of vehicle which it has approved by means of a common secure electronic exchange system. The copy may also take the form of a secure electronic file.

6. The approval authority shall without delay inform the approval authorities of the other Member States of its refusal or withdrawal of any vehicle approval, together with the reasons for its decision.

7. At three-monthly intervals, the approval authority shall send to the approval authorities of the other Member States a list of the EU type-approvals it has granted, amended, refused to grant or withdrawn for systems, components or separate technical units during the preceding period.
8. If so requested by an approval authority of another Member State, the approval authority which has granted an EU type-approval shall, within one month of receiving that request, send to the former a copy of the requested EU type-approval certificate, together with the attachments by means of a common secure electronic exchange system. The copy may also take the form of a secure electronic file.

9. If so requested by the Commission, the approval authority shall submit the information referred to in paragraphs 5 to 8 to the Commission as well.

10. The approval authority shall put together an information package consisting of the information folder accompanied by the test reports and all other documents added by the technical service or by the approval authority to the information folder in the course of carrying out their functions. The information package shall contain an index listing its contents, suitably numbered or otherwise marked so as to identify clearly all the pages and the format of each document such as to present a record of the successive steps in the management of the EU type-approval, in particular the dates of revisions and updating. The approval authority shall keep information contained in the information package available for a period of 10 years after the end of validity of the approval concerned.

**Article 30**

**Specific provisions concerning the EU type-approval certificate**

1. The EU type-approval certificate shall contain, as attachments, the following:

(a) the information package referred to in Article 29(10);

(b) the test results;

(c) the name(s) and specimen(s) of the signature(s) of the person(s) authorised to sign certificates of conformity and a statement of their position in the company;

(d) in the case of an EU whole-vehicle type-approval, a filled-out specimen of the certificate of conformity.

2. The EU type-approval certificate shall be issued on the basis of the template laid down by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

3. In respect of each type of vehicle, the approval authority shall:

(a) complete all the relevant sections of the EU type-approval certificate, including the test results sheet appended thereto;

(b) compile the index to the information package;

(c) issue the completed certificate, together with its attachments, to the applicant without delay.

The Commission shall lay down the template for the test results sheet referred to in point (a) by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

4. In the case of an EU type-approval for which, in accordance with Article 40, restrictions have been imposed as to its validity, or certain provisions of this Regulation or the delegated and implementing acts adopted pursuant to this Regulation have been waived, the EU type-approval certificate shall specify those restrictions or waivers.

5. Where the manufacturer chooses the mixed type-approval procedure, the approval authority shall complete the information package with the references to the test reports, established by the implementing acts referred to in Article 32(1), for which no EU type-approval certificate is available.

6. Where the manufacturer chooses the single-step type-approval procedure, the approval authority shall establish a list of applicable requirements or acts and append that list to the EU type-approval certificate. The Commission shall adopt the template for such a list by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

**Article 31**

**Specific provisions concerning systems, components or separate technical units**

1. EU type-approval shall be granted in respect of a system which conforms to the particulars in the information folder and which meets the technical requirements laid down in the relevant acts listed in Annex II.

2. EU type-approval for a component or separate technical unit shall be granted in respect of a component or separate technical unit that conforms to the particulars in the information folder and which meets the technical requirements laid down in the relevant acts listed in Annex II.

3. Where components or separate technical units, whether or not intended for repair, servicing or maintenance, are also covered by a system type-approval with respect to a vehicle, no additional component or separate technical unit approval shall be required unless provided for under the relevant acts listed in Annex II.
4. Where a component or separate technical unit fulfils its function or offers a specific feature only in conjunction with other parts of the vehicle, thereby making it possible to verify compliance with the requirements only when the component or separate technical unit is operating in conjunction with those other vehicle parts, the scope of the EU type-approval of the component or the separate technical unit shall be restricted accordingly.

In such cases, the EU type-approval certificate shall specify any restriction on the use of the component or separate technical unit and shall indicate the special conditions for its mounting.

Where such a component or separate technical unit is fitted by the vehicle manufacturer, compliance with any applicable restrictions on use or conditions for mounting shall be verified at the time when the vehicle is approved.

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**Article 32**

**Tests required for EU type-approval**

1. Compliance with the technical prescriptions laid down in this Regulation and in the acts listed in Annex II shall be demonstrated by means of appropriate tests performed by designated technical services.

The test procedures referred to in the first subparagraph and the specific equipment and tools prescribed to perform those tests shall be those laid down in the relevant acts listed in Annex II.

The format of the test reports shall comply with the general requirements as laid down by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

2. The manufacturer shall make available to the approval authority as many vehicles, components or separate technical units as are required under the relevant acts listed in Annex II for the performance of the required tests.

3. The required tests shall be performed on vehicles, components and separate technical units which are representative of the type to be approved.

However, the manufacturer may select, in agreement with the approval authority, a vehicle, system, component or separate technical unit which, while not representative of the type to be approved, combines a number of the most unfavourable features with regard to the required level of performance. Virtual testing methods may be used to aid decision-making during the selection process.

4. Subject to the agreement of the approval authority, virtual testing methods may be used as alternatives to the test procedures referred to in paragraph 1 at the request of the manufacturer with respect to those requirements established in the delegated acts adopted pursuant to paragraph 6.

5. Virtual testing methods shall fulfil the conditions set out in the delegated acts adopted pursuant to paragraph 6.

6. In order to ensure that the results obtained through virtual testing are as meaningful as those obtained through physical testing, the Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the requirements which can be subject to virtual testing and the conditions under which the virtual testing are to be performed. When adopting those delegated acts, the Commission shall take as a basis the requirements and procedures provided for in Annex XVI to Directive 2007/46/EC, as appropriate.

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**Article 33**

**Conformity of production arrangements**

1. An approval authority which grants an EU type-approval shall take the necessary measures to verify, if necessary in cooperation with the approval authorities of the other Member States, that adequate arrangements have been made to ensure that the vehicles, systems, components or separate technical units in production will conform to the approved type.

2. An approval authority which grants a whole-vehicle type-approval shall take the necessary measures to verify that certificates of conformity issued by the manufacturer conform to Article 38. To that end, the approval authority shall verify that a sufficient number of samples of certificates of conformity conform to Article 38 and that the manufacturer has made adequate arrangements to ensure that the data in the certificates of conformity are correct.

3. An approval authority which has granted an EU type-approval shall take the necessary measures in relation to that approval to verify, if necessary in cooperation with the approval authorities of the other Member States, that the arrangements referred to in paragraphs 1 and 2 continue to be adequate so that vehicles, systems, components or separate technical units in production will continue to conform to the approved type and certificates of conformity continue to comply with Article 38.

4. In order to verify that a vehicle, system, component or separate technical unit conforms to the approved type, the approval authority which has granted the EU type-approval may carry out any of the checks or tests required for EU type-approval, on samples taken at the premises of the manufacturer, including production facilities.
5. When an approval authority which has granted an EU type-approval establishes that the arrangements referred to in paragraphs 1 and 2 are not being applied, deviate significantly from the arrangements and control plans agreed, have ceased to be applied or are no longer considered to be adequate, even though production is continued, it shall take the necessary measures to ensure that the procedure for conformity of production is followed correctly or shall withdraw the type-approval.

6. The Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the detailed arrangements with regard to conformity of production. The first such delegated acts shall be adopted by 31 December 2014.

CHAPTER VI
AMENDMENTS TO EU TYPE-APPROVALS

Article 34
General provisions
1. The manufacturer shall inform without delay the approval authority that granted the EU type-approval of any change in the particulars recorded in the information package. That approval authority shall decide which of the procedures laid down in Article 35 is to be followed.

Where necessary, the approval authority may decide, after consulting the manufacturer, that a new EU type-approval is to be granted.

2. An application for the amendment of an EU type-approval shall be submitted exclusively to the approval authority that granted the original EU type-approval.

3. If the approval authority finds that, for the purposes of making an amendment, inspections or tests need to be repeated, it shall inform the manufacturer accordingly.

The procedures referred to in Article 35 shall apply only if, on the basis of those inspections or tests, the approval authority concludes that the requirements for EU type-approval continue to be fulfilled.

Article 35
Revisions and extensions of EU type-approvals
1. If particulars recorded in the information package have changed, without requiring inspections or tests to be repeated, the amendment shall be designated a 'revision'.

In such cases, the approval authority shall issue the revised pages of the information package as necessary, marking each revised page to show clearly the nature of the change and the date of re-issue. A consolidated, updated version of the information package, accompanied by a detailed description of the changes, shall be deemed to meet that requirement.

2. The amendment shall be designated an 'extension' when particulars recorded in the information package have changed and any of the following occurs:

   (a) further inspections or tests are required;

   (b) any information on the EU type-approval certificate, with the exception of its attachments, has changed;

   (c) new requirements under any act listed in Annex II become applicable to the approved vehicle type or to the approved system, component or separate technical unit.

In the event of an extension, the approval authority shall issue an updated EU type-approval certificate denoted by an extension number, incremented in accordance with the number of successive extensions already granted. That approval certificate shall clearly show the reason for the extension and the date of re-issue.

3. Whenever amended pages or a consolidated, updated version are issued, the index to the information package attached to the approval certificate shall be amended accordingly to show the date of the most recent extension or revision, or the date of the most recent consolidation of the updated version.

4. No amendment to the type-approval of a vehicle shall be required if the new requirements referred to in point (c) of paragraph 2 are, from a technical point of view, irrelevant to that type of vehicle or concern categories of vehicle other than the category to which it belongs.

Article 36
Issue and notification of amendments
1. In the case of an extension, all relevant sections of the EU type-approval certificate, the attachments thereto, and the index to the information package shall be updated. The updated certificate and its attachments shall be issued to the applicant without delay.

2. In the case of a revision, the revised documents or the consolidated, updated version, as appropriate, including the revised index to the information package, shall be issued by the approval authority to the applicant without delay.

3. The approval authority shall notify any amendment made to EU type-approvals to the approval authorities of the other Member States in accordance with the procedures set out in Article 29.
CHAPTER VII
VALIDITY OF EU TYPE-APPROVAL

Article 37

Termination of validity

1. EU type-approvals shall be issued for an unlimited duration.

2. An EU type-approval of a vehicle shall become invalid in any of the following cases:

   (a) new requirements applicable to the approved vehicle type become mandatory for the making available on the market, registration or entry into service of vehicles, and it is not possible to update the type-approval accordingly;

   (b) production of the approved vehicle is definitively discontinued voluntarily;

   (c) the validity of the approval expires by virtue of a restriction in accordance with Article 40(6);

   (d) the approval has been withdrawn in accordance with Article 33(5), Article 49(1) or Article 52(4).

3. Where only one variant within a type or one version within a variant becomes invalid, the EU type-approval of the vehicle in question shall lose validity only in so far as the particular variant or version is concerned.

4. When production of a particular type of vehicle is definitively discontinued, the manufacturer shall notify the approval authority that granted the EU type-approval for that vehicle.

   Within one month of receiving the notification referred to in the first subparagraph, the approval authority which granted the EU type-approval for the vehicle shall inform the approval authorities of the other Member States accordingly.

5. Without prejudice to paragraph 4, in cases where an EU type-approval of a vehicle is due to become invalid, the manufacturer shall notify the approval authority that granted the EU type-approval.

The approval authority that granted the EU type-approval shall without delay communicate all relevant information to the approval authorities of the other Member States so as to enable the application, where appropriate, of Article 44.

The communication referred to in the second subparagraph shall specify, in particular, the date of production and the vehicle identification number of the last vehicle produced.

CHAPTER VIII
CERTIFICATE OF CONFORMITY AND MARKINGS

Article 38

Certificate of conformity

1. The manufacturer, in its capacity as the holder of a vehicle type-approval, shall deliver a certificate of conformity as a paper document to accompany each vehicle, whether complete, incomplete or completed, which is manufactured in conformity with the approved vehicle type.

   Such a certificate shall be delivered free of charge to the buyer together with the vehicle. Its delivery may not be made dependent on an explicit request or the submission of additional information to the manufacturer.

   For a period of 10 years after the production date of the vehicle the vehicle manufacturer shall, at the request of the vehicle owner, issue a duplicate of the certificate of conformity against a payment not exceeding the cost of issuing it. The word 'duplicate' shall be clearly visible on the face of any duplicate certificate.

2. The manufacturer shall use the template for the certificate of conformity adopted by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The certificate of conformity shall be designed to prevent forgery. To that end, the implementing acts shall provide that the paper used in the certificate shall be protected by several security printing features. The first such implementing acts shall be adopted by 31 December 2014.

3. The certificate of conformity shall be drawn up in at least one of the official languages of the Union. Any Member State may request the certificate of conformity to be translated into its own official language or languages.

4. The person(s) authorised to sign certificates of conformity shall be in the manufacturer's organisation and shall be duly authorised by the management to fully engage the legal responsibility of the manufacturer with respect to the design and the construction or to the conformity of the production of the vehicle.

5. The certificate of conformity shall be completed in its entirety and shall not contain restrictions as regards the use of the vehicle other than those provided for in this Regulation or any of the delegated acts adopted pursuant to this Regulation.

6. In the case of an incomplete or completed vehicle, the manufacturer shall fill in only those items of the certificate of conformity which have been added or changed at the current stage of approval and, if applicable, shall attach to the certificate all certificates of conformity delivered at the previous stages.
7. The certificate of conformity shall, for vehicles approved in accordance with Article 40(2), display in its title the phrase ‘For complete/completed vehicles, type-approved in application of Article 40(4) of Regulation (EU) No 168/2013 of the European Parliament and of the Council of 15 January 2013 on the approval and market surveillance of two- or three-wheel vehicles and quadricycles (provisional approval)’.

8. The certificate of conformity, as set out in the implementing acts referred to in paragraph 2, shall, for vehicles type-approved in accordance with Article 42, display in its title the phrase ‘For complete/completed vehicles type-approved in small series’, and in close proximity thereto the year of production followed by a sequential number, between 1 and the limit indicated in the table in Annex III, denoting, in respect of each year of production, the position of that vehicle within the production allocated for that year.

9. Without prejudice to paragraph 1, the manufacturer may transmit the certificate of conformity by electronic means to the registration authority of any Member State.

Article 39
Statutory plate with the appropriate marking of vehicles and type-approval mark of components or separate technical units

1. The manufacturer of a vehicle shall affix to each vehicle manufactured in conformity with the approved type a statutory plate with the appropriate marking required by the relevant implementing act adopted pursuant to paragraph 3.

2. The manufacturer of a component or separate technical unit, whether or not it is part of a system, shall affix to each component or separate technical unit manufactured in conformity with the approved type the type-approval mark required by the relevant implementing act adopted pursuant to this Regulation or the relevant UNECE regulation.

Where no such type-approval mark is required, the manufacturer shall affix at least the trade name or trade mark of the manufacturer, the type number or an identification number.

3. The statutory plate and EU type-approval mark shall be in accordance with the model set out by the Commission by means of implementing acts. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2). The first such implementing acts shall be adopted by 31 December 2014.

CHAPTER IX
EXEMPTIONS FOR NEW TECHNOLOGIES OR NEW CONCEPTS

Article 40

Exemptions for new technologies or new concepts

1. The manufacturer may apply for an EU type-approval in respect of a type of vehicle, system, component or separate technical unit that incorporates new technologies or concepts which are incompatible with one or more acts listed in Annex II.

2. The approval authority shall grant the EU type-approval referred to in paragraph 1 where all of the following conditions are met:

(a) the application states the reasons why the technologies or concepts in question make the system, component or separate technical unit incompatible with one or more acts listed in Annex II;

(b) the application describes the safety and environmental implications of the new technology and the measures taken in order to ensure at least an equivalent level of safety and environmental protection as that provided by the requirements from which exemption is sought;

(c) test descriptions and results are presented which prove that the condition in point (b) is met.

3. The granting of such an EU type-approval exempting new technologies or new concepts shall be subject to authorisation by the Commission. That authorisation shall be given by means of an implementing act. That implementing act shall be adopted in accordance with the examination procedure referred to in Article 73(2).

4. Pending the decision on authorisation by the Commission, the approval authority may already issue the EU type-approval, but it shall be provisional, valid only in the territory of that Member State, in respect of a type of vehicle covered by the exemption sought. The approval authority shall inform the Commission and the other Member States thereof without delay by means of a file containing the information referred to in paragraph 2.

The provisional nature and the limited territorial validity shall be apparent from the heading of the type-approval certificate and the heading of the certificate of conformity. The Commission may adopt implementing acts in order to provide for harmonised templates for the type-approval certificate and the certificate of conformity for the purposes of this paragraph. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2).

5. Other approval authorities may decide to accept in writing the provisional approval referred to in paragraph 4 within their territory.
6. Where appropriate, the authorisation by the Commission referred to in paragraph 3 shall also specify whether it is subject to any restrictions. In all cases, the type-approval shall be valid for at least 36 months.

7. If the Commission decides to refuse authorisation, the approval authority shall immediately give notice to the holder of the provisional type-approval referred to in paragraph 4 that the provisional approval will be revoked six months after the date of the Commission’s refusal.

However, vehicles manufactured in conformity with the provisional approval before it ceases to be valid may be placed on the market, registered or entered into service in any Member State that accepted the provisional approval.

**Article 41**

**Subsequent adaptation of delegated and implementing acts**

1. Where the Commission authorises the granting of an exemption pursuant to Article 40, it shall immediately take the necessary steps to adapt the delegated or implementing acts concerned to technological developments.

Where the exemption under Article 40 relates to a UNECE regulation, the Commission shall propose an amendment to the relevant UNECE regulation in accordance with the procedure applicable under the Revised 1958 Agreement.

2. As soon as the relevant acts have been amended, any restriction in the Commission decision authorising the exemption shall be lifted.

If the necessary steps to adapt the delegated or implementing acts have not been taken, the Commission may, at the request of the Member State which granted the approval, authorise, by means of a decision in the form of an implementing act adopted in accordance with the examination procedure referred to in Article 73(2), the Member State to extend the type-approval.

**CHAPTER X**

**VEHICLES PRODUCED IN SMALL SERIES**

**Article 42**

**National type-approval of small series**

1. The manufacturer may apply for a national type-approval of small series of a type of vehicle within the quantitative annual limits set out in Annex III. These limits shall apply to the making available on the market, registration or entry into service of vehicles of the approved type on the market of each Member State in a given year.

2. For the type of vehicles referred to in paragraph 1, Member States may waive one or more of the substantive requirements laid down in one or more of the delegated acts listed in Annex II, provided that they lay down relevant alternative requirements.

‘Alternative requirements’ means administrative provisions and technical requirements which aim to ensure a level of functional safety, environmental protection and occupational safety which is equivalent to the greatest extent practicable to the level provided for by one or more of the delegated acts listed in Annex II.

For the type of vehicles referred to in paragraph 1, Member States may waive one or more of the administrative provisions of this Regulation or of the implementing acts adopted pursuant to this Regulation.

A Member State shall only waive the provisions referred to in this paragraph if it has reasonable grounds for doing so.

3. For the national type-approval of vehicles under this Article, systems, components or separate technical units which are type-approved in accordance with the acts listed in Annex II shall be accepted.

4. The type-approval certificate for vehicles type-approved in accordance with this Article shall be drafted in accordance with the template referred to in Article 30(2), but shall not bear the heading ‘EU vehicle type-approval certificate’ and shall specify the content of the waivers granted pursuant to paragraph 2. Type-approval certificates shall be numbered in accordance with the harmonised system referred to in Article 29(4).

5. The type-approval certificate shall specify the nature of the waivers granted pursuant to the first and third subparagraphs of paragraph 2.

6. The validity of a national type-approval of small series shall be restricted to the territory of the Member State whose approval authority granted the approval.

7. However, at the request of the manufacturer, a copy of the type-approval certificate and its attachments shall be sent by registered mail or by electronic mail to the approval authorities of the Member States designated by the manufacturer.

8. Within three months of receipt of the request referred to in paragraph 7, the approval authorities of the Member States designated by the manufacturer shall decide whether or not they accept the type-approval. They shall formally communicate their decision to the approval authority which granted the national type-approval of small series.

9. The approval authorities of the Member States shall accept the national type-approval unless they have reasonable grounds to believe that the national technical requirements in accordance with which the vehicle was approved are not equivalent to their own.
10. At the request of an applicant who wishes to place on the market or register a vehicle with national type-approval of small series in another Member State, the approval authority that granted the national type-approval of small series shall provide the national authority of the other Member State with a copy of the type-approval certificate including the information package. Paragraphs 8 and 9 shall apply.

CHAPTER XI
MAKING AVAILABLE ON THE MARKET, REGISTRATION OR ENTRY INTO SERVICE

Article 43
Making available on the market, registration or entry into service of vehicles

Without prejudice to Articles 46 and 47, vehicles for which EU whole-vehicle type-approval is mandatory or for which the manufacturer has obtained such type-approval under this Regulation shall only be made available on the market, registered or entered into service if they are accompanied by a valid certificate of conformity issued in accordance with Article 38.

Where such vehicles are incomplete, making available on the market or entry into service of such vehicles is permitted, but the authorities responsible for vehicle registration of the Member States may refuse to allow the registration and use on the road of such vehicles.

Article 44
Making available on the market, registration or entry into service of end-of-series vehicles

1. Subject to the end-of-series limits and time limit specified in paragraphs 2 and 4, vehicles conforming to a type of vehicle whose EU type-approval has become invalid pursuant to Article 37 may be made available on the market, registered or entered into service.

The first subparagraph shall apply only to vehicles within the territory of the Union which were covered by a valid EU type-approval at the time of their production, but which had neither been made available on the market, registered nor entered into service before that EU type-approval lost its validity.

2. Paragraph 1 shall apply, in the case of complete vehicles, for a period of 24 months from the date on which the EU type-approval became invalid and, in the case of completed vehicles, for a period of 30 months from that date.

3. A manufacturer who wishes to benefit from paragraph 1 shall submit a request to the national authority of each Member State where the vehicles in question are to be made available on the market, registered or entered into service. That request shall specify any technical or economic reasons preventing those vehicles from complying with the new type-approval requirements.

The national authority concerned shall decide, within three months of receiving the request, whether and in what number to permit the registration of those vehicles within their territory.

4. The amount of end-of-series vehicles shall not exceed 10% of the number of vehicles registered in the two preceding years or 100 vehicles per Member State, whichever is higher.

5. A special entry qualifying the vehicles as 'end-of-series' shall be made on the certificate of conformity of the vehicles put into service under this procedure.

6. Member States shall ensure that the number of vehicles to be made available on the market, registered or entered into service under the procedure set out in this Article is effectively monitored.

7. This Article shall apply only to discontinuation due to termination of validity of the type-approval in the case referred to in point (a) of Article 37(2).

Article 45
Making available on the market or entry into service of components and separate technical units

1. Components or separate technical units may only be made available on the market or entered into service if they comply with the requirements of the relevant acts listed in Annex II and are properly marked in accordance with Article 39.

2. Paragraph 1 shall not apply in the case of components or separate technical units which are specifically constructed or designed for new vehicles not covered by this Regulation.

3. By way of derogation from paragraph 1, Member States may permit the making available on the market or entry into service of components or separate technical units which have been exempted from one or more provisions of this Regulation under Article 40 or are intended for mounting on vehicles covered by approvals granted under Article 42 that concern the component or separate technical unit in question.

4. By way of derogation from paragraph 1, and unless otherwise provided for in this Regulation or in one of the delegated acts adopted pursuant to this Regulation, Member States may permit the making available on the market or entry into service of components or separate technical units which are intended for mounting on vehicles which, when made available on the market or entered into service, were not required to be type-approved by this Regulation or by Directive 2002/24/EC.
CHAPTER XII
SAFEGUARD CLAUSES

Article 46

Procedure for dealing with vehicles, systems, components or separate technical units presenting a serious risk at national level

1. Where the market surveillance authorities of one Member State have taken action pursuant to Article 20 of Regulation (EC) No 765/2008, or where they have sufficient reason to believe that a vehicle, system, component or separate technical unit covered by this Regulation presents a serious risk to the health or safety of persons or to other aspects of the protection of public interests covered by this Regulation, the approval authority that granted the approval shall carry out an evaluation in relation to the vehicle, system, component or separate technical unit concerned covering all the requirements laid down in this Regulation. The relevant economic operators shall cooperate fully with the approval and/or market surveillance authorities.

Where, in the course of that evaluation, the approval authority that granted the approval finds that the vehicle, system, component or separate technical unit does not comply with the requirements laid down in this Regulation, it shall without delay require the relevant economic operator to take all appropriate corrective action to bring the vehicle, system, component or separate technical unit into compliance with those requirements, to withdraw the vehicle, system, component or separate technical unit from the market, or to recall it within a reasonable period, commensurate with the nature of the risk.

The information provided shall include all available details, in particular the data necessary for the identification of the non-compliant vehicle, system, component or separate technical unit, its origin, the nature of the non-conformity alleged and the risk involved, the nature and duration of the national measures taken, and the arguments put forward by the relevant economic operator. In particular, the approval authorities shall indicate whether the non-conformity is due to either of the following:

(a) failure of the vehicle, system, component or separate technical unit to meet requirements relating to the health or safety of persons, the protection of the environment or to other aspects of the protection of public interests covered by this Regulation;

(b) shortcomings in the relevant acts listed in Annex II.

2. Where the approval authorities consider that non-conformity is not restricted to their national territory, they shall inform the Commission and the other Member States of the results of the evaluation and the action required of the economic operator.

3. The economic operator shall ensure that all appropriate corrective action is taken in respect of all non-compliant vehicles, systems, components or separate technical units that it has placed on the market, registered or is responsible for its entry into service in the Union.

4. Where the economic operator does not take adequate corrective action within the period referred to in the second subparagraph of paragraph 1, the national authorities shall take all appropriate measures to prohibit or restrict the making available on the market, registration or entry into service of non-compliant vehicles, systems, components or separate technical units on their national market, to withdraw them from that market or to recall them.

5. The national authorities shall, without delay, inform the Commission and the other Member States of the measures provided for in paragraph 4.

6. Member States shall within one month inform the Commission and the other Member States of any measures adopted and of any additional information at their disposal relating to the non-conformity of the vehicle, system, component or separate technical unit concerned, and, in the event of disagreement with the notified national measure, of their objections.

7. Where, within one month of receipt of the information referred to in paragraph 6 of this Article, an objection has been raised by either another Member State or the Commission in respect of a measure taken by a Member State, that measure shall be evaluated by the Commission in accordance with Article 47.

8. Member States shall ensure that appropriate restrictive measures are taken in respect of the vehicle, system, component or separate technical unit concerned, such as withdrawal of the vehicle, system, component or separate technical unit from their market, without delay.

Article 47

Union safeguard procedure

1. Where, during the procedure set out in Article 46(3) and (4), objections are raised against a measure taken by a Member State, or where the Commission considers a national measure to be contrary to the Union legislation, the Commission shall without delay evaluate the national measure after consulting Member States and the relevant economic operator or operators. On the basis of the results of that evaluation, the Commission shall decide, in accordance with the examination procedure referred to in Article 73(2), whether the national measure is considered justified or not.

The Commission shall communicate its decision to all Member States and to the relevant economic operator or operators.

2. If the national measure is considered justified by the Commission, all Member States shall take the measures necessary to ensure that the non-compliant vehicle, system, component or separate technical unit is withdrawn from their market, and shall inform the Commission accordingly. If the national measure is considered unjustified, the Member State concerned shall withdraw or adapt the measure, in accordance with the decision referred to in paragraph 1.
3. Where the national measure is considered justified and is attributed to shortcomings in this Regulation or in delegated or implementing acts adopted pursuant to this Regulation, the Commission shall propose appropriate measures as follows:

(a) where delegated or implementing acts adopted pursuant to this Regulation are concerned, the Commission shall propose the necessary amendments to the act concerned;

(b) where UNECE regulations are concerned, the Commission shall propose the necessary draft amendments to the relevant UNECE regulations in accordance with the procedure applicable under the Revised 1958 Agreement.

Article 48

Compliant vehicles, systems, components or separate technical units that present a serious risk

1. Where, having performed an evaluation under Article 46(1), a Member State finds that vehicles, systems, components or separate technical units, although they comply with the applicable requirements or are properly marked, present a serious risk to safety or may seriously harm the environment or public health, it shall require the relevant economic operator to take all appropriate measures to ensure that the vehicle, system, component or separate technical unit concerned, when placed on the market, registered or after its entry into service, no longer presents that risk, to withdraw the vehicle, system, component or separate technical unit from the market or to recall it within a reasonable period, commensurate with the nature of the risk. The Member State may refuse to register such vehicles until the vehicle manufacturer has taken all appropriate measures.

2. For a vehicle, system, component or separate technical unit as referred to in paragraph 1, the economic operator shall ensure that corrective action is taken in respect of all such vehicles, systems, components or separate technical units placed on the market, registered or entered into service in the Union.

3. The Member State referred to in paragraph 1 shall within one month inform the Commission and the other Member States of all available details, in particular the data necessary for the identification of the vehicle, system, component or separate technical unit concerned, the origin and the supply chain of the vehicle, system, component or separate technical unit, the nature of the risk involved and the nature and duration of the national measures taken.

4. The Commission shall, without delay, consult the Member States and the relevant economic operator or operators and, in particular, the approval authority that granted the type-approval, and shall evaluate the national measure taken. On the basis of that evaluation, the Commission shall decide whether the national measure referred to in paragraph 1 is considered justified or not, and where necessary, propose appropriate measures.

5. The Commission shall address its decision to all Member States and shall immediately communicate it to them and the relevant economic operator or operators.

Article 49

Vehicles, systems, components or separate technical units not in conformity with the approved type

1. Where new vehicles, systems, components or separate technical units accompanied by a certificate of conformity or bearing an approval mark do not conform to the approved type, the approval authority which granted the EU type-approval shall take the necessary measures, including the withdrawal of type-approval, to ensure that vehicles, systems, components or separate technical units in production are brought into conformity with the approved type.

2. For the purposes of paragraph 1, deviations from the particulars in the EU type-approval certificate or the information package shall be deemed to constitute failure to conform to the approved type.

3. If an approval authority demonstrates that new vehicles, components or separate technical units accompanied by a certificate of conformity or bearing an approval mark issued in another Member State do not conform to the approved type, it may ask the approval authority which granted the EU type-approval to verify that vehicles, systems, components or separate technical units in production continue to conform to the approved type. On receipt of such a request, the approval authority which granted the EU type-approval shall take the requisite action as soon as possible and at the latest within three months of the date of the request.

4. The approval authority shall request the approval authority which granted the EU type-approval for a system, component, separate technical unit or incomplete vehicle to take the necessary action to ensure that vehicles in production are brought back into conformity with the approved type in the following cases:

(a) for an EU vehicle type-approval, where the non-conformity of a vehicle is attributable exclusively to the non-conformity of a system, component or separate technical unit;

(b) for a multi-stage type-approval, where the non-conformity of a completed vehicle is attributable exclusively to the non-conformity of a system, component or separate technical unit that forms part of the incomplete vehicle or to the non-conformity of the incomplete vehicle itself.

5. On receipt of such a request, the approval authority concerned shall take the necessary action, if necessary in conjunction with the approval authority making the request, as soon as possible and at the latest within three months of the date of the request.
6. Where non-conformity is established, the approval authority of the Member State that granted the EU type-approval for the system, component or separate technical unit or for the incomplete vehicle shall take the measures set out in paragraph 1.

The approval authorities shall inform each other within one month of any withdrawal of EU type-approval and of the reasons therefor.

7. If the approval authority that granted the EU type-approval disputes the non-conformity notified to it, the Member States concerned shall endeavour to settle the dispute. The Commission shall be kept informed and, where necessary, shall hold appropriate consultations with a view to reaching a settlement.

**Article 50**

**Placing on the market and entry into service of parts or equipment that may pose a serious risk to the correct functioning of essential systems**

1. Parts or equipment that may pose a serious risk to the correct functioning of systems that are essential for the safety of the vehicle or for its environmental performance shall not be placed on the market, registered or enter into service and shall be prohibited, unless they have been authorised by an approval authority in accordance with Article 51(1) and (4).

2. In order to ensure the uniform application of paragraph 1, the Commission may adopt implementing acts to draw up a list of such parts or equipment on the basis of available information, and in particular information communicated by the Member States, regarding:

   (a) the seriousness of the risk to the safety or environmental performance of vehicles fitted with the parts or equipment in question;

   (b) the possible effect on consumers and after-market manufacturers of the imposition under this Article of a possible authorisation requirement for parts or equipment.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2).

3. Paragraph 1 shall not apply to original parts or equipment and to parts or equipment that are type-approved in accordance with any of the acts listed in Annex II, except where the approval relates to aspects other than those covered in paragraph 1.

Paragraph 1 shall not apply to parts or equipment exclusively produced for racing vehicles not intended for use on public roads. If parts or equipment included in a list established by an implementing act referred to in paragraph 2 have a dual use for racing and on the road, these parts or equipment may not be made available to the general public for use in on-road vehicles unless they comply with the requirements of this Article. Where appropriate, the Commission shall adopt provisions for identifying the parts or equipment referred to in this paragraph.

4. The Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the requirements which the parts and equipment referred to in paragraph 1 of this Article shall fulfil.

These requirements may be based on the acts listed in Annex II or may consist of a comparison of the parts or equipment with the environmental or safety performance of the original vehicle, or of any of its parts, as appropriate. In either case the requirements shall ensure that the parts or equipment do not impair the functioning of those systems that are essential for the safety of the vehicle or its environmental performance.

**Article 51**

**Parts or equipment that may pose a serious risk to the correct functioning of essential systems — related requirements**

1. For the purposes of Article 50(1), the manufacturer of parts or equipment shall submit to the approval authority an application accompanied by a test report drafted by a designated technical service which certifies that the parts or equipment for which authorisation is sought comply with the requirements referred to in Article 50(4). The manufacturer may submit only one application per type of part to only one approval authority.

If so requested by the competent authority of another Member State, the approval authority which has given the authorisation shall, within one month of receiving that request, send to the former a copy of the requested authorisation certificate together with the attachments by means of a common secure electronic exchange system. The copy may also take the form of a secure electronic file.

2. The application shall include details of the manufacturer of parts or equipment, the type, identification and part numbers of the parts or equipment, the vehicle manufacturer’s name, type of vehicle and, if appropriate, year of construction or any other information permitting the identification of the vehicle to which the parts or equipment are to be fitted.

When the approval authority is satisfied, taking account of the test report and other evidence, that the parts or equipment in question comply with the requirements referred to in Article 50(4), it shall authorise the parts or equipment to be placed on the market and to be entered into service subject to the second subparagraph of paragraph 4 of this Article. The approval authority shall issue a certificate to the manufacturer without delay.

3. The Commission may adopt implementing acts in order to lay down a template and numbering system for the certificate referred to in the third subparagraph of paragraph 2 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2).
4. The manufacturer shall inform without delay the approval authority that gave the authorisation of any change affecting the conditions under which it was issued. That approval authority shall decide whether the authorisation has to be reviewed or reissued and whether further tests are necessary.

The manufacturer shall be responsible for ensuring that the parts or equipment are produced and continue to be produced under the conditions under which the authorisation was issued.

5. Before delivering any authorisation, the approval authority shall verify the existence of satisfactory arrangements and procedures for ensuring effective control of the conformity of production.

Where the approval authority finds that the conditions for issuing the authorisation are no longer fulfilled, it shall request the manufacturer to take the necessary measures to ensure that the parts or equipment are brought back into conformity. If necessary, it shall withdraw the authorisation.

6. Approval authorities from different Member States shall bring any disagreement in relation to the authorisation referred to in the second subparagraph of paragraph 2 to the attention of the Commission. The Commission shall take the appropriate measures in order to resolve the disagreement, including, where necessary, requiring the withdrawal of the authorisation, after having consulted the approval authorities.

7. Until the list referred to in Article 50(2) has been established, Member States may maintain national provisions dealing with parts or equipment which may affect the correct functioning of systems essential for the safety of the vehicle or its environmental performance.

Article 52

Recall of vehicles, systems, components or separate technical units

1. Where a manufacturer who has been granted an EU whole-vehicle type-approval is obliged, in accordance with Regulation (EC) No 765/2008, to recall vehicles placed on the market, registered or for which the manufacturer was responsible for the entry into service, because a system, component or separate technical unit fitted to the vehicle presents a serious risk to safety, public health or environmental protection, whether or not duly approved in accordance with this Regulation, or because a part not subject to any specific requirements under type-approval legislation presents a serious risk to safety, public health or environmental protection, whether or not duly approved in accordance with this Regulation, the manufacturer shall immediately inform the approval authority that granted the approval.

3. The manufacturer shall propose to the approval authority a set of appropriate remedies to neutralise the serious risk referred to in paragraphs 1 and 2. The approval authority shall communicate the proposed remedies to the approval authorities of the other Member States without delay.

The approval authorities shall ensure that the remedies are effectively implemented in their respective Member States.

4. If the remedies are considered to be insufficient or not implemented quickly enough by the approval authority concerned, it shall inform the approval authority that granted the EU type-approval without delay.

The approval authority that granted the EU type-approval shall then inform the manufacturer. If the manufacturer does not propose and implement effective corrective measures, the approval authority which granted the EU type-approval shall take all protective measures required, including the withdrawal of the EU type-approval. In the case of withdrawal of the EU type-approval, the approval authority shall within one month of such withdrawal notify the manufacturer, the approval authorities of the other Member States and the Commission by registered letter or equivalent electronic means.

Article 53

Notification of decisions and remedies available

1. All decisions taken pursuant to this Regulation and all decisions refusing or withdrawing EU type-approval, refusing registration, prohibiting or restricting the placing on the market, registration or entry into service of a vehicle or requiring withdrawal of a vehicle from the market shall state in detail the reasons on which they are based.

2. Any such decision shall be notified to the party concerned, who shall, at the same time, be informed of the remedies available to it under the laws in force in the Member State concerned and of the time limits allowed for the exercise of such remedies.

CHAPTER XIII

INTERNATIONAL REGULATIONS

Article 54

UNECE regulations required for EU type-approval

1. UNECE regulations or amendments thereto which the Union has voted in favour of or to which the Union has acceded and which are listed in this Regulation or in the delegated acts adopted pursuant to this Regulation shall be part of the requirements for the EU type-approval of a vehicle.
2. The approval authorities of the Member States shall accept approvals granted in accordance with the UNECE regulations referred to in paragraph 1 and, where applicable, the relevant approval marks, in place of the corresponding approvals and approval marks granted in accordance with this Regulation and the delegated acts adopted pursuant to this Regulation.

3. Where the Union has voted in favour of a UNECE regulation or amendments thereto for the purpose of EU vehicle type-approval, the Commission shall adopt a delegated act in accordance with Article 75 in order to make the UNECE regulation or amendments thereto compulsory and to amend this Regulation or to amend the delegated acts adopted pursuant to this Regulation, as appropriate.

That delegated act shall specify the dates of compulsory application of the UNECE regulation or amendments thereto and shall include transitional provisions where appropriate.

The Commission shall adopt separate delegated acts indicating the mandatory application of UNECE regulations.

CHAPTER XIV
PROVISION OF TECHNICAL INFORMATION

Article 55
Information intended for users
1. The manufacturer may not supply any technical information related to the particulars provided for in this Regulation, or in the delegated or implementing acts adopted pursuant to this Regulation, which diverges from the particulars approved by the approval authority.

2. Where a delegated or implementing act adopted pursuant to this Regulation so provides, the manufacturer shall make available to users all relevant information and necessary instructions describing any special conditions or restrictions linked to the use of a vehicle, a system, a component or a separate technical unit.

3. The information referred to in paragraph 2 shall be supplied in the official language or languages of the Member State where the vehicle is to be placed on the market, registered or is to be entered into service. It shall be provided, after acceptance by the approval authority, in the owner’s manual.

Article 56
Information intended for manufacturers of components or separate technical units
1. The vehicle manufacturer may impose a binding agreement on the manufacturers of components or separate technical units to protect the confidentiality of any information which is not in the public domain, including information related to intellectual property rights.

2. The manufacturer of components or separate technical units, in its capacity as the holder of an EU type-approval certificate which, in accordance with Article 31(4), includes restrictions on use or special mounting conditions or both, shall provide all the detailed information thereon to the vehicle manufacturer.

Where a delegated act adopted pursuant to this Regulation so provides, the manufacturer of components or separate technical units shall provide, together with the components or separate technical units produced, instructions regarding restrictions on use or special mounting conditions or both.

CHAPTER XV
ACCESS TO REPAIR AND MAINTENANCE INFORMATION

Article 57
Manufacturers’ obligations
1. Manufacturers shall provide unrestricted access to vehicle repair and maintenance information to independent operators through websites using a standardised format in a readily accessible and prompt manner. In particular, this access shall be granted in a manner which is non-discriminatory compared to the provision given or access granted to authorised dealers and repairers. This obligation shall not apply if a vehicle has been approved as a small series vehicle.

2. Until the Commission has adopted a common standard, the information referred to in paragraph 1 shall be submitted in a consistent manner that can be processed by independent operators with reasonable effort.

Manufacturers shall also make training material available to independent operators and authorised dealers and repairers.

3. The information referred to in paragraph 1 shall include as a minimum all of the following:

(a) an unequivocal vehicle identification number;

(b) service handbooks including repair and maintenance records and service schedules;

(c) technical manuals and technical service bulletins;

(d) component and diagnosis information (such as minimum and maximum theoretical values for measurements);

(e) wiring diagrams;
(f) diagnostic trouble codes, including manufacturer-specific codes;

(g) the software identification and calibration verification numbers applicable to a vehicle type;

(h) information concerning, and delivered by means of, proprietary tools and equipment;

(i) data record information and two-directional monitoring and test data;

(j) work units.

4. Authorised dealers or repairers within the distribution system of a given vehicle manufacturer shall be regarded as independent operators for the purposes of this Regulation to the extent that they provide repair or maintenance services for vehicles in respect of which they are not members of the vehicle manufacturer’s distribution system.

5. The vehicle repair and maintenance information shall always be available, except as required for maintenance purposes of the information system.

6. For the purposes of manufacture and servicing of OBD-compatible replacement or service parts and diagnostic tools and test equipment, manufacturers shall provide the relevant OBD and vehicle repair and maintenance information on a non-discriminatory basis to any interested manufacturer or repairer of component, diagnostic tool or test equipment.

7. For the purposes of design and manufacture of automotive equipment for alternative-fuel vehicles, manufacturers shall provide the relevant OBD and vehicle repair and maintenance information on a non-discriminatory basis to any interested manufacturer, installer or repairer of equipment for alternative-fuel vehicles.

8. When applying for EU type-approval, the manufacturer shall provide the approval authority with proof of compliance with this Regulation relating to the information required under this Article. In the event that such information is not available, or does not conform to this Regulation and the delegated and implementing acts adopted pursuant to this Regulation, when applying for EU type-approval, the manufacturer shall provide it within six months from the date of type-approval.

The Commission may adopt implementing acts in order to lay down a template of a certificate on access to vehicle OBD and vehicle repair and maintenance information providing such proof of compliance to the approval authority. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 73(2).

9. If such proof of compliance is not provided within the period referred to in the second subparagraph of paragraph 8, the approval authority shall take appropriate measures to ensure compliance.

10. The manufacturer shall make subsequent amendments and supplements to vehicle repair and maintenance information available on its websites at the same time they are made available to authorised repairers.

11. Where repair and maintenance records of a vehicle are kept in a central database of the vehicle manufacturer or on its behalf, independent repairers shall have access to such records free of charge and shall be able to enter information on repair and maintenance which they have performed.

12. The Commission shall be empowered to adopt delegated acts in accordance with Article 75 laying down the details of the requirements with regard to access to repair and maintenance information, in particular technical specifications relating to the way in which vehicle repair and maintenance information shall be provided.

**Article 58**

Obligations with regard to several type-approval holders

1. In the event of step-by-step type-approval or of multi-stage type-approval, the manufacturer responsible for the respective type-approval shall also be responsible for communicating repair information relating to the particular system, component or separate technical unit or to the particular stage to both the final manufacturer and independent operators.

2. The final manufacturer shall be responsible for providing information about the whole vehicle to independent operators.

**Article 59**

Fees for access to vehicle repair and maintenance information

1. Manufacturers may charge reasonable and proportionate fees for access to vehicle repair and maintenance information covered by this Regulation. A fee shall not be reasonable or proportionate if it discourages access by failing to take into account the extent to which the independent operator uses it.

2. Manufacturers shall make available vehicle repair and maintenance information on a daily, monthly, and yearly basis, with fees for access to such information varying in accordance with the respective periods of time for which access is granted.
Article 60
Forum on Access to Vehicle Information

The scope of application of the activities carried out by the Forum on Access to Vehicle Information established in accordance with Article 13(9) of Commission Regulation (EC) No 692/2008 of 18 July 2008 implementing and amending Regulation (EC) No 715/2007 of the European Parliament and of the Council on type-approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information (1) shall be extended to the vehicles covered by this Regulation.

On the basis of evidence of deliberate or unintentional misuse of vehicle OBD and vehicle repair and maintenance information, the Forum referred to in the first paragraph shall advise the Commission on measures to prevent such misuse of information.

CHAPTER XVI
DESIGNATION AND NOTIFICATION OF TECHNICAL SERVICES

Article 61
Requirements relating to technical services

1. Designating approval authorities shall ensure that before they designate a technical service pursuant to Article 63, that technical service meets the requirements laid down in paragraphs 2 to 9 of this Article.

2. Without prejudice to Article 64(1), a technical service shall be established under the national law of a Member State and have legal personality.

3. A technical service shall be a third-party body independent of the process of design, manufacturing, supply or maintenance of the vehicle, system, component or separate technical unit it assesses.

A body belonging to a business association or professional federation representing undertakings involved in the design, manufacturing, provision, assembly, use or maintenance of vehicles, systems, components or separate technical units which it assesses, tests or inspects may, on condition that its independence of judgment or integrity in relation to the assessment activities, especially such pressures or inducements emanating from persons or groups of persons with an interest in the results of those activities,

4. A technical service, its top-level management and the personnel responsible for carrying out the categories of activities for which they are designated in accordance with Article 63(1) shall not be the designer, manufacturer, supplier, or maintainer of the vehicles, systems, components or separate technical units which they assess, nor represent parties engaged in those activities. This shall not preclude the use of assessed vehicles, systems, components or separate technical units referred to in paragraph 3 of this Article that are necessary for the operation of the technical service or the use of such vehicles, systems, components or separate technical units for personal purposes.

A technical service shall ensure that the activities of its subsidiaries or subcontractors do not affect the confidentiality, objectivity or impartiality of the categories of activities for which it has been designated.

5. A technical service and its personnel shall carry out the categories of activities for which it has been designated with the highest degree of professional integrity and the requisite technical competence in the specific field and shall be free from all pressures and inducements, particularly financial, which might influence their judgment or the results of their assessment activities, especially such pressures or inducements emanating from persons or groups of persons with an interest in the results of those activities.

6. A technical service shall be capable of carrying out all the categories of activities for which it has been designated in accordance with Article 63(1), by demonstrating to the satisfaction of its designating approval authority, that it has:

(a) personnel with appropriate skills, specific technical knowledge and vocational training as well as sufficient and appropriate experience to perform the task;

(b) descriptions of the procedures relevant for the categories of activities for which it is seeking to be designated, ensuring the transparency and reproducibility of those procedures;

(c) procedures for the performance of the categories of activities for which it is seeking to be designated which take due account of the degree of complexity of the technology of the vehicle, system, component or separate technical unit in question, and the mass or serial nature of the production process; and

(d) means necessary to perform in an appropriate manner the tasks connected with the categories of activities for which it is seeking to be designated and that it has access to all necessary equipment or facilities.

In addition, it shall demonstrate to the designating approval authority its compliance with the standards laid down in the delegated acts adopted pursuant to Article 65 which are relevant for the categories of activities for which it is designated.

7. The impartiality of the technical services, their top-level management and the assessment personnel shall be guaranteed. They shall not engage in any activity that may conflict with their independence of judgment or integrity in relation to the categories of activities for which they are designated.

8. Technical services shall take out liability insurance related to their activities unless liability is assumed by the Member State in accordance with national law, or the Member State itself is directly responsible for the conformity assessment.

9. The personnel of a technical service shall observe professional secrecy with regard to all information obtained in carrying out their tasks under this Regulation or any provision of national law giving effect to it, except in relation to the designating approval authority or where required by Union or national law. Proprietary rights shall be protected.

**Article 62**

**Subsidiaries of and subcontracting by technical services**

1. Technical services may subcontract some of their activities for which they have been designated in accordance with Article 63(1) or have those activities carried out by a subsidiary only with the agreement of their designating approval authority.

2. Where a technical service subcontracts specific tasks connected with the categories of activities for which it has been designated or has recourse to a subsidiary, it shall ensure that the subcontractor or the subsidiary meet the requirements set out in Article 61 and shall inform the designating approval authority accordingly.

3. Technical services shall take full responsibility for the tasks performed by any of their subcontractors or subsidiaries, wherever these are established.

4. Technical services shall keep at the disposal of the designating approval authority the relevant documents concerning the assessment of the qualifications of the subcontractor or the subsidiary and the tasks performed by them.

**Article 63**

**Designation of technical services**

1. Technical services shall be designated for one or more of the following categories of activities, depending on their field of competence:

(a) category A: technical services which carry out in their own facilities the tests referred to in this Regulation and in the acts listed in Annex II;

(b) category B: technical services which supervise the tests referred to in this Regulation and in the acts listed in Annex II, where such tests are performed in the manufacturer’s facilities or in the facilities of a third party;

(c) category C: technical services which assess and monitor on a regular basis the manufacturer’s procedures for controlling conformity of production;

(d) category D: technical services which supervise or perform tests or inspections for the surveillance of conformity of production.

2. An approval authority may be designated as a technical service for one or more of the activities referred to in paragraph 1.

3. Technical services of a third country, other than those designated in accordance with Article 64, may be notified for the purposes of Article 67, but only if such an acceptance of technical services is provided for by a bilateral agreement between the Union and the third country concerned. This shall not prevent a technical service established under the national law of a Member State in accordance with Article 61(2) from establishing subsidiaries in third countries, provided that the subsidiaries are directly managed and controlled by the designated technical service.

**Article 64**

**Accredited in-house technical services of the manufacturer**

1. An accredited in-house technical service of a manufacturer may be designated only for category A activities with regard to technical requirements for which self-testing is allowed by a delegated act adopted pursuant to this Regulation. That technical service shall constitute a separate and distinct part of the undertaking and shall not be involved in the design, manufacturing, supply or maintenance of the vehicles, systems, components or separate technical units it assesses.

2. An accredited in-house technical service shall meet the following requirements:

   (a) in addition to being designated by the approval authority of a Member State it shall be accredited by a national accreditation body as defined in point 11 of Article 2 of Regulation (EC) No 765/2008 and in accordance with the standards and procedure referred to in Article 65 of this Regulation;

   (b) the accredited in-house technical service and its personnel shall be organisationally identifiable and have reporting methods within the undertaking of which they form part which ensure their impartiality and demonstrate it to the relevant national accreditation body;

   (c) neither the accredited in-house technical service nor its personnel shall engage in any activity that might conflict with their independence of judgment or integrity in relation to the categories of activities for which they have been designated;

   (d) the accredited in-house technical service shall supply its services exclusively to the undertaking of which it forms part.

3. An accredited in-house technical service need not be notified to the Commission for the purposes of Article 67, but information concerning its accreditation shall be given by the undertaking to which it forms part or by the national accreditation body to the designating approval authority at the request of that authority.
**Article 65**

**Procedures for performance standards and assessment of technical services**

In order to ensure that technical services meet the same high level of performance standards in all Member States, the Commission shall be empowered to adopt delegated acts in accordance with Article 75 concerning the standards with which the technical services have to comply and the procedure for their assessment in accordance with Article 66 and their accreditation in accordance with Article 64.

**Article 66**

**Assessment of the skills of technical services**

1. The designating approval authority shall draw up an assessment report demonstrating that the candidate technical service has been assessed for its compliance with the requirements of this Regulation and the delegated acts adopted pursuant to this Regulation. That report may include a certificate of accreditation issued by an accreditation body.

2. The assessment on which the report referred to in paragraph 1 is based shall be conducted in accordance with the provisions laid down in a delegated act adopted pursuant to Article 65. The assessment report shall be reviewed at least every three years.

3. The assessment report shall be communicated to the Commission upon request. In such cases, and where the assessment is not based on an accreditation certificate issued by a national accreditation body attesting that the technical service fulfils the requirements of this Regulation, the designating approval authority shall provide the Commission with documentary evidence which attests the technical service’s competence and the arrangements in place to ensure that the technical service is monitored regularly by the designating approval authority and satisfies the requirements of this Regulation and the delegated acts adopted pursuant to this Regulation.

The approval authority that intends to be designated as a technical service in accordance with Article 63(2) shall document compliance through an assessment conducted by auditors independent of the activity being assessed. Such auditors may be from the same organisation provided that they are managed separately from personnel undertaking the assessed activity.

4. An accredited in-house technical service shall comply with the relevant provisions of this Article.

**Article 67**

**Procedures for notification**

1. Member States shall notify to the Commission the name, the address including electronic address, the responsible persons and the category of activities with respect to each technical service they have designated, as well as any subsequent modifications to those designations. The notification shall state for which subjects listed in Annex II the technical services have been designated.

2. A technical service may conduct the activities referred to in Article 63(1) on behalf of the designating approval authority responsible for the type-approval only if it has been notified beforehand to the Commission in accordance with paragraph 1 of this Article.

3. The same technical service may be designated by several designating approval authorities and notified by the Member States of these designating approval authorities, irrespective of the category or categories of activities it will conduct in accordance with Article 63(1).

4. The Commission shall be notified of any subsequent relevant changes to the designation.

5. Where a specific organisation or competent body carrying out an activity not included in those referred to in Article 63(1) needs to be designated in application of an act listed in Annex II, the notification shall be made in accordance with this Article.

6. The Commission shall publish on its website a list and details of the technical services notified in accordance with this Article.

**Article 68**

**Changes to designations**

1. Where a designating approval authority has ascertained or has been informed that a technical service designated by it no longer meets the requirements laid down in this Regulation, or that it is failing to fulfil its obligations, the designating approval authority shall restrict, suspend or withdraw the designation as appropriate, depending on the seriousness of the failure to meet those requirements or fulfil those obligations. The Member State that has notified this technical service shall immediately inform the Commission accordingly. The Commission shall modify the information published referred to in Article 67(6) accordingly.

2. In the event of restriction, suspension or withdrawal of the designation, or where the technical service has ceased its activity, the designating approval authority shall take appropriate steps to ensure that the files of that technical service are either processed by another technical service or kept available for the designating approval authority or for the market surveillance authorities at their request.

**Article 69**

**Challenge to the competence of technical services**

1. The Commission shall investigate all cases where it has doubts, or doubt is brought to its attention, regarding the competence of a technical service or the continued fulfilment by a technical service of the requirements and responsibilities to which it is subject.

2. The Member State of the designating approval authority shall provide the Commission, on request, with all information relating to the basis for the designation or the maintenance of the designation of the technical service concerned.
3. The Commission shall ensure that all sensitive information obtained in the course of its investigations is treated confidentially.

4. Where the Commission ascertains that a technical service does not meet or no longer meets the requirements for its designation, it shall inform the Member State of the designating approval authority accordingly, with a view to establishing, in cooperation with that Member State, the corrective measures necessary, and shall request that Member State to take those corrective measures, including the withdrawal of the designation if necessary.

**Article 70**

**Operational obligations of technical services**

1. Technical services shall carry out the categories of activities for which they have been designated on behalf of the designating approval authority and in accordance with the assessment and test procedures provided for in this Regulation and the acts listed in Annex II.

Technical services shall supervise or shall themselves carry out the tests required for approval or inspections as set out in this Regulation or in one of the acts listed in Annex II, except where alternative procedures are permitted. The technical services shall not conduct tests, assessments or inspections for which they have not been duly designated by their approval authority.

2. Technical services shall at all times:

   (a) allow their designating approval authority to witness the technical service during the conformity assessment as appropriate; and

   (b) without prejudice to Article 61(9) and Article 71, provide their designating approval authority such information on their categories of activities falling under the scope of this Regulation as may be requested.

3. Where a technical service finds that requirements laid down in this Regulation have not been met by a manufacturer, it shall report this to the designating approval authority with a view for the designating approval authority requiring the manufacturer to take appropriate corrective measures and subsequently not to issue a type-approval certificate unless the appropriate corrective measures have been taken to the satisfaction of the approval authority.

4. Where, in the course of monitoring conformity of production following the issue of a type-approval certificate, a technical service acting on behalf of the designating approval authority finds that a vehicle, system, component or separate technical unit no longer complies with this Regulation, it shall report this to the designating approval authority. The approval authority shall take the appropriate measures as provided for in Article 33.
(h) the template for the certificate of conformity referred to in Article 38(2);

(i) the model for the EU type-approval mark referred to in Article 39(3);

(j) the authorisations to grant EU type-approvals exempting new technologies or new concepts referred to in Article 40(3);

(k) the templates for the type-approval certificate and the certificate of conformity as regards new technologies or new concepts referred to in Article 40(4);

(l) the authorisations to Member States to extend the type-approval referred to in Article 41(2);

(m) the list of parts and equipment as referred to in Article 50(2);

(n) the template and the numbering system for the certificate referred to in Article 51(3) as well as all aspects relating to the procedure of authorisation referred to in that Article;

(o) the template for the certificate providing proof of compliance to the approval authority as referred to in Article 57(8).

Article 73
Committee procedure

1. The Commission shall be assisted by the Technical Committee — Motor Vehicles established by Article 40 of Directive 2007/46/EC. That committee is a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Where the committee delivers no opinion, the Commission shall not adopt the draft implementing act and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

Article 74
Amendment of the Annexes

Without prejudice to the other provisions of this Regulation relating to the amendment of its Annexes, the Commission shall also be empowered to adopt delegated acts in accordance with Article 75, concerning the amendments to:

(i) Annex II (B) and (C) as regards the introduction of additional functional safety and vehicle construction requirements for subcategory L7e-A heavy on-road quads;

(ii) Annexes II and V in order to introduce regulatory act references and corrigenda;

(iii) Annex V (B) in order to change the applicable reference fuels;

(iv) Annex VI (C) and (D) in order to take account of the results of the study referred to in Article 23(4) and adoption of UNECE regulations.

Article 75
Exercise of the delegation

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 18(3), Article 20(2), Article 21(5), Article 22(5) and (6), Article 23(6) and (12), Article 24(3), Article 25(8), Article 32(6), Article 33(6), Article 50(4), Article 54(3), Article 57(12), Article 65 and Article 74 shall be conferred on the Commission for a period of five years from 22 March 2013.

3. The delegation of power referred to in Article 18(3), Article 20(2), Article 21(5), Article 22(5) and (6), Article 23(6) and (12), Article 24(3), Article 25(8), Article 32(6), Article 33(6), Article 50(4), Article 54(3), Article 57(12), Article 65 and Article 74 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

4. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

5. A delegated act adopted pursuant to Article 18(3), Article 20(2), Article 21(5), Article 22(5) and (6), Article 23(6) and (12), Article 24(3), Article 25(8), Article 32(6), Article 33(6), Article 50(4), Article 54(3), Article 57(12), Article 65 and Article 74 shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or the Council.
CHAPTER XVIII

FINAL PROVISIONS

Article 76

Penalties

1. Member States shall provide for penalties for infringement by economic operators of this Regulation and the delegated or implementing acts adopted pursuant to this Regulation. They shall take all measures necessary to ensure that the penalties are implemented. The penalties provided for shall be effective, proportionate and dissuasive. Member States shall notify those provisions to the Commission by 23 March 2015 and shall notify the Commission without delay of any subsequent amendment affecting them.

2. The types of infringements which are subject to a penalty shall include:

(a) making false declarations during approval procedures or procedures leading to a recall;

(b) falsifying test results for type-approval;

(c) withholding data or technical specifications which could lead to recall, refusal or withdrawal of type-approval;

(d) use of defeat devices;

(e) refusal to provide access to information;

(f) economic operators making available on the market vehicles, systems, components or separate technical units subject to approval without such approval or falsifying documents or markings with that intention.

Article 77

Transitional provisions

1. Without prejudice to other provisions of this Regulation, this Regulation shall not invalidate any EU type-approval granted to vehicles or to systems, components or separate technical units before 1 January 2016.

2. Save where provided otherwise, EU type-approvals granted to vehicles, systems, components or separate technical units under the acts referred to under Article 81(1) shall remain valid until the dates specified in Annex IV for existing types of vehicles.

3. By way of derogation from this Regulation, new vehicle types of categories L1e, L2e and L6e or new systems, components or separate technical units intended for such vehicle types shall continue to be type-approved under Directive 2002/24/EC until 31 December 2016.

4. Approval authorities shall continue to grant extension of approvals to the vehicles, systems, components or separate technical units referred to in paragraph 1 in accordance with Directive 2002/24/EC and any of the directives listed in Article 81(1). However, such approvals shall not be used for the purposes of obtaining a whole-vehicle type-approval under this Regulation.

5. By way of derogation from Directive 2002/24/EC, type-approval shall also be granted for vehicles which comply with this Regulation and the delegated acts adopted pursuant to this Regulation on environmental and propulsion requirements as referred to in Annex II (A) by 31 December 2013.

In such a case, national authorities shall not prohibit, restrict or impede the registration, placing on the market or entry into service of vehicles complying with the approved type.

Article 78

Report

1. By 31 December 2020, Member States shall inform the Commission of the application of the type-approval procedures laid down in this Regulation.

2. On the basis of the information supplied under paragraph 1, the Commission shall present a report to the European Parliament and the Council on the application of this Regulation by 31 December 2021. In particular, the report shall consider whether, on the basis of experience gained with the application of this Regulation, it would be appropriate to provide in Chapter X also for EU type-approval of small series. If it considers necessary, the Commission shall present a proposal to this effect.

Article 79

Review on advanced braking systems

1. By 31 December 2019, the Commission shall submit a report to the European Parliament and to the Council.

2. That report shall examine the mandatory fitting of an anti-lock brake system and a supplemental combined brake system at the choice of the manufacturer to L3e-A1 subcategory motorcycles. It shall be based on an assessment of the technical feasibility of such a requirement, a cost-effectiveness analysis, a road accident analysis and a consultation of relevant stakeholders. It shall furthermore take into account existing related European and international standards.

3. For the purpose of the report provided for in paragraph 2, Member States shall provide to the Commission by 31 December 2017 statistics on road accidents of the motorcycles in question for the preceding four years which are based on the vehicle classification as laid down in Annex I and the type of advanced brake system fitted.
4. On the basis of the results of the report, the Commission shall consider presenting a legislative proposal on the mandatory fitting of advanced brake system to the vehicle subcategories in question.

Article 80

Review on individual vehicles approvals

1. By 31 December 2022, the Commission shall submit a report to the European Parliament and to the Council regarding the subjects referred to in paragraph 3.

2. The report shall be based on a consultation of relevant stakeholders and shall take into account existing related European and international standards.

3. By 31 December 2021 the Member States shall report to the Commission on:

   (a) the number of individual approvals granted to L-category vehicles before their first registration per year by the national authorities of that Member State since 1 January 2016;

   (b) the national criteria upon which such approvals were based in so far as these criteria deviated from the requirements obligatory for EU type-approval.

4. The report shall be accompanied, where appropriate, by legislative proposals, and shall examine the inclusion of individual approvals in this Regulation on the basis of harmonised requirements.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Strasbourg, 15 January 2013.

For the European Parliament
The President
M. SCHULZ

For the Council
The President
L. CREIGHTON
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### ANNEX I

#### Vehicle classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Category name</th>
<th>Common classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-L7e</td>
<td>All L-category vehicles</td>
<td>(1) length ≤ 4 000 mm or ≤ 3 000 mm for a L6e-B vehicle or ≤ 3 700 mm for a L7e-C vehicle, and (2) width ≤ 2 000 mm, or ≤ 1 000 mm for a L1e vehicle, or ≤ 1 500 mm for a L6e-B or a L7e-C vehicle and (3) height ≤ 2 500 mm and</td>
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<thead>
<tr>
<th>Category</th>
<th>Category name</th>
<th>Common classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e</td>
<td>Light two-wheel powered vehicle</td>
<td>(4) two wheels and powered by a propulsion as listed under Article 4(3) and (5) engine capacity ≤ 50 cm³ if a PI internal combustion engine forms part of the vehicle's propulsion configuration and (6) maximum design vehicle speed ≤ 45 km/h and (7) maximum continuous rated or net power (1) ≤ 4 000 W and (8) maximum mass = technically permissible mass declared by the manufacturer and</td>
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</tbody>
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<thead>
<tr>
<th>Sub-categories</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td>(9) cycles designed to pedal equipped with an auxiliary propulsion with the primary aim to aid pedalling and (10) output of auxiliary propulsion is cut off at a vehicle speed ≤ 25 km/h and (11) maximum continuous rated or net power (1) ≤ 1 000 W and (12) a powered three- or four-wheel cycle complying with supplemental specific sub-classification criteria (9) to (11) is classified as being technically equivalent to a two-wheel L1e-A vehicle.</td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped</td>
<td>(9) any other vehicle of the L1e category that cannot be classified according to the criteria (9) to (12) of a L1e-A vehicle.</td>
</tr>
<tr>
<td>Category</td>
<td>Category name</td>
<td>Common classification criteria</td>
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</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td>(4) three wheels and powered by a propulsion as listed under Article 4(3) and</td>
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<tr>
<td></td>
<td></td>
<td>(5) engine capacity ≤ 50 cm³ if a PI internal combustion engine or engine capacity ≤ 500 cm³ if a CI combustion engine forms part of the vehicle's propulsion configuration and</td>
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<td>(6) maximum design vehicle speed ≤ 45 km/h and</td>
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<td></td>
<td></td>
<td>(7) maximum continuous rated or net power (1) ≤ 4 000 W and</td>
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<td></td>
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<td>(8) mass in running order ≤ 270 kg and</td>
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<td></td>
<td>(9) equipped with a maximum of two seating positions, including the seating position for the driver and</td>
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<td></td>
<td>(10) L2e vehicle other than those complying with the specific classification criteria for a L2e-U vehicle.</td>
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</table>

<table>
<thead>
<tr>
<th>Sub-categories</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2e-P</td>
<td>Three-wheel moped for passenger transport</td>
<td>(10) exclusively designed for the carriage of goods with an open or enclosed, virtually even and horizontal loading bed that meets the following criteria:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a) ( \text{length} \times \text{width} \geq 0.3 \times \text{Length}<em>{\text{vehicle}} \times \text{Width}</em>{\text{vehicle}} ) or</td>
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<tr>
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<td>(b) an equivalent loading bed area as defined above in order to install machines and/or equipment and</td>
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<td></td>
<td>(c) designed with a loading bed area which is clearly separated by a rigid partition from the area reserved for the vehicle occupants and</td>
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<td></td>
<td>(d) the loading bed area shall be able to carry a minimum volume represented by a 600 mm cube.</td>
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<tr>
<td>Category</td>
<td>Category name</td>
<td>Common classification criteria</td>
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</tr>
<tr>
<td>L3e (5)</td>
<td>Two-wheel motorcycle</td>
<td>(4) two wheels and powered by propulsion as listed under Article 4(3) and (5) maximum mass = technically permissible mass declared by the manufacturer and (6) two-wheel vehicle that cannot be classified as category L1e.</td>
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<tr>
<td></td>
<td><strong>Sub-categories</strong></td>
<td></td>
</tr>
<tr>
<td>L3e-A1</td>
<td>Low-performance motorcycle</td>
<td>(7) engine capacity ≤ 125 cm³ and (8) maximum continuous rated or net power ( ^{(1)} ) ≤ 11 kW and (9) power ( ^{(1)} )/weight ratio ≤ 0,1 kW/kg.</td>
</tr>
<tr>
<td>L3e-A2</td>
<td>Medium-performance motorcycle</td>
<td>(7) maximum continuous rated or net power ( ^{(1)} ) ≤ 35 kW and (8) power ( ^{(1)} )/weight ratio ≤ 0,2 kW/kg and (9) not derived from a vehicle equipped with an engine of more than double its power ( ^{(1)} ) and (10) L3e vehicle that cannot be classified under supplemental sub-classification criteria (7), (8) and (9) of a L3e-A1 vehicle.</td>
</tr>
<tr>
<td>L3e-A3</td>
<td>High-performance motorcycle</td>
<td>(7) any other L3e vehicle that cannot be classified according to the classification criteria of a L3e-A1 or L3e-A2 vehicle.</td>
</tr>
<tr>
<td>Sub-sub-categories</td>
<td>Sub-Subcategory name</td>
<td>Sub-Sub-classification criteria in addition to the sub-classification criteria of L3e-A1, L3e-A2 or L3e-A3 vehicles</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| L3e-AxE (x = 1, 2 or 3) | Enduro motorcycles | (a) seat height ≥ 900 mm and  
(b) ground clearance ≥ 310 mm and  
(c) overall gear ratio in highest gear (primary gear ratio × secondary gear ratio in the highest speed × final drive ratio) ≥ 6.0 and  
(d) mass in running order plus the mass of the propulsion battery in case of electric or hybrid electric propulsion ≤ 140 kg and  
(e) no seating position for a passenger. |
| L3e-AxT (x = 1, 2 or 3) | Trial motorcycles | (a) seat height ≤ 700 mm and  
(b) ground clearance ≥ 280 mm and  
(c) fuel tank capacity ≤ 4 litres and  
(d) overall gear ratio in highest gear (primary gear ratio × secondary gear ratio in the highest speed × final drive ratio) ≥ 7.5 and  
(e) mass in running order ≤ 100 kg and  
(f) no seating position for a passenger. |

<table>
<thead>
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</thead>
</table>
| L4e      | Two-wheel motorcycle with side-car | (4) base powered vehicle complying with the classification and subclassification criteria for a L3e vehicle and  
(5) base powered vehicle equipped with one side-car and  
(6) with a maximum of four seating positions including the driver on the motorcycle with side car and  
(7) a maximum of two seating positions for passengers in the side car and  
(8) maximum mass = technically permissible mass declared by the manufacturer. |
<table>
<thead>
<tr>
<th>Category</th>
<th>Category name</th>
<th>Common classification criteria</th>
</tr>
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</table>
| L5e      | Powered tricycle | (4) three wheels and powered by a propulsion as listed under Article 4(3) and  
|          |                | (5) mass in running order ≤ 1 000 kg and  
|          |                | (6) three-wheel vehicle that cannot be classified as a L2e vehicle and |
|          |                |                                |

Sub-categories

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
</table>
| L5e-A        | Tricycle         | (7) L5e vehicle other than those complying with the specific classification criteria for a L5e-B vehicle and  
|              |                  | (8) with a maximum of five seating positions, including the seating position of the driver. |
| L5e-B        | Commercial tricycle | (7) designed as a utility vehicle and characterised by an enclosed driving and passenger compartment accessible by maximum three sides and  
|              |                  | (8) equipped with a maximum of two seating positions, including the seating position for the driver and  
|              |                  | (9) exclusively designed for the carriage of goods with an open or enclosed, virtually even and horizontal loading bed that meets the following criteria:  
|              |                  | (a) length_{loading bed} × width_{loading bed} ≥ 0,3 × Length_{vehicle} × Width_{vehicle}  
|              |                  | (b) an equivalent loading bed area as defined above designed to install machines and/or equipment and  
|              |                  | (c) designed with a loading bed area which is clearly separated by a rigid partition from the area reserved for the vehicle occupants and  
<p>|              |                  | (d) the loading bed area shall be able to carry a minimum volume represented by a 600 mm cube. |</p>
<table>
<thead>
<tr>
<th>Category</th>
<th>Category name</th>
<th>Common classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L6e</td>
<td>Light quadricycle</td>
<td>(4) four wheels and powered by a propulsion as listed under Article 4(3) and (5) maximum design vehicle speed ≤ 45 km/h and (6) the mass in running order ≤ 425 kg and (7) engine capacity ≤ 50 cm³ if a PI engine or engine capacity ≤ 500 cm³ if a CI engine forms part of the vehicle's propulsion configuration and (8) equipped with a maximum of two seating positions, including the seating position for the driver and</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-categories</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td>(9) L6e vehicle not complying with the specific classification criteria for a L6e-B vehicle and (10) maximum continuous rated or net power ((^1)) ≤ 4 000 W.</td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadri-mobile</td>
<td>(9) enclosed driving and passenger compartment accessible by maximum three sides and (10) maximum continuous rated or net power ((^1)) ≤ 6 000 W and</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Sub-sub-categories</th>
<th>Sub-subcategory name</th>
<th>Sub-sub-classification criteria in addition to the sub-classification criteria of a L6e-B vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L6e-BP</td>
<td>Light quadri-mobile for passenger transport</td>
<td>(11) L6e-B vehicle mainly designed for passenger transport and (12) L6e-B vehicle other than those complying with the specific classification criterion for a L6e-BU vehicle.</td>
</tr>
<tr>
<td>L6e-BU</td>
<td>Light quadri-mobile for utility purposes</td>
<td>(11) exclusively designed for the carriage of goods with an open or enclosed, virtually even and horizontal loading bed that meets the following criteria: (a) ( \text{length}<em>{\text{loading bed}} \times \text{width}</em>{\text{loading bed}} \geq 0.3 \times \text{Length}<em>{\text{vehicle}} \times \text{Width}</em>{\text{vehicle}} ) or (b) an equivalent loading bed area as defined above in order to install machines and/or equipment and (c) designed with a loading bed area which is clearly separated by a rigid partition from the area reserved for the vehicle occupants and (d) the loading bed area shall be able to carry a minimum volume represented by a 600 mm cube.</td>
</tr>
<tr>
<td>Category</td>
<td>Category name</td>
<td>Common classification criteria</td>
</tr>
<tr>
<td>----------</td>
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</tr>
</tbody>
</table>
| L7e      | Heavy quadricycle   | (4) four wheels and powered by a propulsion as listed under Article 4(3) and (5) mass in running order:  
|          |                     |   (a) ≤ 450 kg for transport of passengers;  
|          |                     |   (b) ≤ 600 kg for transport of goods.  
|          |                     | and (6) L7e vehicle that cannot be classified as a L6e vehicle and                                                                                                          |

<table>
<thead>
<tr>
<th>Sub-categories</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td>(7) L7e vehicle not complying with the specific classification criteria for a L7e-B or a L7e-C vehicle and (8) vehicle designed for the transport of passengers only and (9) maximum continuous rated or net power (^1) ≤ 15 kW and</td>
</tr>
</tbody>
</table>

<table>
<thead>
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<th>Sub-Sub categories</th>
<th>Sub-Sub category name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7e-A1</td>
<td>A1 heavy on-road quad</td>
<td>(10) maximum two straddle seating positions, including the seating position for the rider and (11) handlebar to steer.</td>
</tr>
<tr>
<td>L7e-A2</td>
<td>A2 heavy on-road quad</td>
<td>(10) L7e-A vehicle not complying with the specific classification criteria for a L7e-A1 vehicle and (11) maximum two non-straddle seating positions, including the seating position for the driver.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Subcategory name</th>
<th>Supplemental sub-classification criteria</th>
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</thead>
<tbody>
<tr>
<td>L7e-B</td>
<td>Heavy all terrain quad</td>
<td>(7) L7e vehicle not complying with the specific classification criteria for a L7e-C vehicle and (8) ground clearance ≥180 mm and</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-Sub categories</th>
<th>Sub-Sub category name</th>
<th>Supplemental sub-classification criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7e-B1</td>
<td>All terrain quad</td>
<td>(9) maximum two straddle seating positions, including the seating position for the rider and (10) equipped with a handlebar to steer and (11) maximum design vehicle speed ≤ 90 km/h and (12) wheelbase to ground clearance ratio ≤ 6.</td>
</tr>
<tr>
<td>L7e-B2</td>
<td>Side-by-side buggy</td>
<td>(9) L7e-B vehicle other than a L7e-B1 vehicle and (10) maximum three non-straddle seats of which two positioned side-by-side, including the seating position for the driver and (11) maximum continuous rated or net power (^1) ≤ 15 kW and (12) wheelbase to ground clearance ratio ≤ 8.</td>
</tr>
<tr>
<td>Sub-category</td>
<td>Subcategory name</td>
<td>Supplemental sub-classification criteria</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadri-mobile</td>
<td>(7) L7e vehicle not complying with the specific classification criteria for a L7e-B vehicle and (8) maximum continuous rated or net power (1) ≤ 15 kW and (9) maximum design vehicle speed ≤ 90 km/h and (10) enclosed driving and passenger compartment accessible via maximum three sides and</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sub-sub-categories</th>
<th>Sub-subcategory name</th>
<th>Sub-sub-classification criteria in addition to the sub-classification criteria of a L7e-C vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L7e-CP</td>
<td>Heavy quadri-mobile for passenger transport</td>
<td>(11) L7e-C vehicle not complying with the specific classification criteria for a L7e-CU vehicle and (12) maximum four non-straddle seats, including the seating position for the driver.</td>
</tr>
<tr>
<td>L7e-CU</td>
<td>Heavy quadri-mobile for utility purposes</td>
<td>(11) exclusively designed for the carriage of goods with an open or enclosed, virtually even and horizontal loading bed that meets the following criteria: (a) ( \text{length}<em>{\text{loading bed}} \times \text{width}</em>{\text{loading bed}} \geq 0,3 \times \text{Length}<em>{\text{vehicle}} \times \text{Width}</em>{\text{vehicle}} ) or (b) an equivalent loading bed area as defined above designed to install machines and/or equipment and (c) designed with a loading bed area which is clearly separated by a rigid partition from the area reserved for the vehicle occupants and (d) the loading bed area shall be able to carry a minimum volume represented by a 600 mm cube and (12) maximum two non-straddle seats, including the seating position for the driver.</td>
</tr>
</tbody>
</table>

NB: refer to the end of Annex VIII for an overview of the notes to the Annexes.
Exhaustive list of requirements for the purposes of EU vehicle type-approval (1)

<table>
<thead>
<tr>
<th>No</th>
<th>Article</th>
<th>Subject</th>
<th>Regulatory act reference</th>
<th>Vehicle Categories</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td>L1e-A  L1e-B  L2e  L3e  L4e  L5e-A  L5e-B  L6e-A  L6e-B  L7e-A  L7e-B  L7e-C</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>environmental test procedures related to exhaust emissions, evaporative emissions, greenhouse gas emissions, fuel consumption and reference fuels</td>
<td>X  X  X  X  X  X  X  X  X  X  X  X</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>23 &amp; 24</td>
<td>maximum design vehicle speed, maximum torque, maximum continuous total engine power of propulsion</td>
<td>X  X  X  X  X  X  X  X  X  X  X  X</td>
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<tr>
<td>3</td>
<td></td>
<td>test procedures related to sound</td>
<td>X  X  X  X  X  X  X  X  X  X  X  X</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Article</td>
<td>Subject</td>
<td>Regulatory act reference</td>
<td>Vehicle Categories</td>
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<td>En 2.3.2013 Official Journal of the European Union L 60/103</td>
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<td>VEHICLE FUNCTIONAL SAFETY REQUIREMENTS</td>
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<td>audible warning devices</td>
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<td>2</td>
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<td>braking, including anti-lock and combined brake systems</td>
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<tr>
<td>3</td>
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<td>electrical safety</td>
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<tr>
<td>4</td>
<td></td>
<td>manufacturer declaration requirements regarding endurance testing of functional safety systems, parts and equipment</td>
<td>X X X X X X X X X X X X X X X</td>
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<tr>
<td>5</td>
<td></td>
<td>front and rear protective structures</td>
<td>IF IF IF IF IF IF IF IF IF</td>
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<tr>
<td>6</td>
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<td>glazing, windscreen wipers and washers, defrosting and demisting devices</td>
<td>IF IF IF IF IF X IF X IF X</td>
<td></td>
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<tr>
<td>7</td>
<td></td>
<td>driver-operated controls including identification of controls, tell-tales and indicators</td>
<td>X X X X X X X X X X X X X X X</td>
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<tr>
<td>8</td>
<td></td>
<td>installation of lighting and light signalling devices, including automatic switching-on of lighting</td>
<td>X X X X X X X X X X X X X X X</td>
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<tr>
<td>9</td>
<td></td>
<td>rearward visibility</td>
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<td>rollover protective structure (ROPS)</td>
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<tr>
<td>11</td>
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<td>safety belt anchorages and safety belts</td>
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<td>seating position (saddles and seats)</td>
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<td>steer-ability, cornering properties and turn-ability</td>
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<td>installation of tyres</td>
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<td>vehicle maximum speed limitation plate and location on vehicle</td>
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<td>vehicle occupant protection, including interior fittings, head restraint and vehicle doors</td>
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<table>
<thead>
<tr>
<th>No</th>
<th>Article</th>
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<th>Vehicle Categories</th>
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<td>maximum continuous rated or net power and/or vehicle speed limitation by design</td>
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<tr>
<td>No</td>
<td>Article</td>
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<td>Vehicle Categories</td>
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<td>VEHICLE CONSTRUCTION AND GENERAL TYPE-APPROVAL REQUIREMENTS</td>
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<td>performance standards and assessment of technical services</td>
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</table>

NB: refer to the end of Annex VIII for an overview of the notes to the Annexes.
### ANNEX III

#### Limits for small series

<table>
<thead>
<tr>
<th>Vehicle (Sub-)category</th>
<th>Vehicle (Sub-)category name</th>
<th>Small series (units for each type made available on the market, registered and entered into service per year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td></td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped</td>
<td>50</td>
</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td></td>
</tr>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycle</td>
<td>75</td>
</tr>
<tr>
<td>L4e</td>
<td>Two-wheel motorcycle with side-car</td>
<td>150</td>
</tr>
<tr>
<td>L5e-A</td>
<td>Tricycle</td>
<td>75</td>
</tr>
<tr>
<td>L5e-B</td>
<td>Commercial tricycle</td>
<td>150</td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td>30</td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadri-mobile</td>
<td>150</td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td>30</td>
</tr>
<tr>
<td>L7e-B</td>
<td>Heavy all terrain quad</td>
<td>50</td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadri-mobile</td>
<td>150</td>
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</tbody>
</table>
## ANNEX IV

Timetable for the application of this Regulation in respect of type-approval

<table>
<thead>
<tr>
<th>Point</th>
<th>Description</th>
<th>(Sub-)category</th>
<th>New types of vehicles obligatory</th>
<th>Existing types of vehicles obligatory</th>
<th>Last date of registration of compliant vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Application of delegated act on environmental and propulsion performance requirements, items as listed in Annex II (A)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1.1.</td>
<td>Test type I, tailpipe emission test after cold start</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
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<td>1.1.1.</td>
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</tr>
<tr>
<td>1.1.1.4.</td>
<td>Test type I, revised WMTC based test cycle</td>
<td>L1e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
<td>—</td>
</tr>
<tr>
<td>1.1.2.</td>
<td>Test type I, tailpipe emission limits</td>
<td>—</td>
<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>1.1.2.3.</td>
<td>Euro 5: Annex VI A2</td>
<td>L1e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
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</tr>
<tr>
<td>1.2.</td>
<td>Test type II, emissions test at (increased) idle/free acceleration</td>
<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>1.2.1.</td>
<td>Test type II, emissions test at (increased) idle/free acceleration</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
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</tr>
<tr>
<td>1.2.2.</td>
<td>Test type II, emissions test at (increased) idle/free acceleration</td>
<td>L3e, L4e, L5e-A, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
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</tr>
<tr>
<td>1.3.</td>
<td>Test type III, zero crankcase gas emissions</td>
<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>1.3.1.</td>
<td>Test type III, zero crankcase gas emissions</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
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<tr>
<td>1.3.2.</td>
<td>Test type III, zero crankcase gas emissions</td>
<td>L3e, L4e, L5e-A, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
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</tr>
<tr>
<td>1.4.</td>
<td>Test type IV, evaporative emissions</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1.4.1.</td>
<td>Fuel tank permeability test</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2017</td>
<td>—</td>
</tr>
<tr>
<td>Point</td>
<td>Description</td>
<td>(Sub-)category</td>
<td>New types of vehicles obligatory</td>
<td>Existing types of vehicles obligatory</td>
<td>Last date of registration of compliant vehicles</td>
</tr>
<tr>
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<tr>
<td>1.4.2</td>
<td>Fuel tank permeability test</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2016</td>
<td></td>
</tr>
<tr>
<td>1.4.3</td>
<td>SHED test procedure</td>
<td>L3e, L4e, L5e-A, L7e-A</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td></td>
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<tr>
<td>1.4.4</td>
<td>SHED test procedure</td>
<td>L6e-A</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
<td></td>
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<tr>
<td>1.4.7</td>
<td>SHED test or fuel permeation test, pending study results referred to in Article 23(4) and (5)</td>
<td>L1e-A, L1e-B, L2e, L5e-B, L6e-B, L7e-B, L7e-C</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
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<td>1.4.8</td>
<td>SHED test limits, Annex VI (C2), pending study results referred to in Article 23(4) and (5)</td>
<td>L1e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
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<td>1.5</td>
<td>Test type V, durability testing (3)</td>
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</tr>
<tr>
<td>1.5.1</td>
<td>Euro 4 durability mileage, Annexes VII (A) and (B)</td>
<td>L1c, L2c, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
<td>31.12.2020</td>
</tr>
<tr>
<td>1.5.2</td>
<td>Euro 4 durability mileage, Annexes VII (A) and (B)</td>
<td>L3c, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td>31.12.2020</td>
</tr>
<tr>
<td>1.5.3</td>
<td>Euro 5, durability mileage, Annexes VII (A) and (B)</td>
<td>L1e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
<td></td>
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<tr>
<td>1.6</td>
<td>A test type VI has not been attributed</td>
<td>—</td>
<td>—</td>
<td>—</td>
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</tr>
<tr>
<td>1.7</td>
<td>Test type VII, greenhouse gas emissions/fuel or energy consumption determination and reporting</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>1.7.1</td>
<td>Test type VII, greenhouse gas emissions/fuel or energy consumption determination and reporting</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
<td></td>
</tr>
<tr>
<td>1.7.2</td>
<td>Test type VII, greenhouse gas emissions/fuel or energy consumption determination and reporting</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>Test type VIII, OBD environmental test</td>
<td>—</td>
<td>—</td>
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</tr>
</tbody>
</table>

OBD stage I environmental test procedure (test type VIII) | OBD stage I environmental test thresholds, Annex VI (B1) | — | — | — | — |
<table>
<thead>
<tr>
<th>Point</th>
<th>Description</th>
<th>Sub-category</th>
<th>New types of vehicles obligatory</th>
<th>Existing types of vehicles obligatory</th>
<th>Last date of registration of compliant vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8.2.</td>
<td>OBD stage I functional requirements</td>
<td>L3e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBD stage I environmental test procedure (test type VIII)</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>OBD stage I environmental test thresholds, Annex VI (B2)</td>
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<tr>
<td>1.8.3.</td>
<td>OBD stage II functional requirements, pending Article 23(4) and (5)</td>
<td>L3e, L5e-A, L6e-A, L7e-A</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBD stage II environmental test procedures (test type VIII), pending Article 23(4) and (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OBD stage II environmental test thresholds, Annex VI (B2), pending Article 23(4) and (5)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1.9.</td>
<td>Test type IX, sound level (³)</td>
<td></td>
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</tr>
<tr>
<td>1.9.2.</td>
<td>Sound level test procedure and limit values (³), Annex VI (D)</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td>31.12.2020</td>
</tr>
<tr>
<td>1.9.3.</td>
<td>UNECE regulations Nos 9, 41, 63, 92 and limits of Annex VI (D)</td>
<td>L1e-L7e</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1.9.4.</td>
<td>UNECE regulations Nos 9, 41, 63, 92 and associated new limit values proposed by the Commission</td>
<td>L1e-L7e</td>
<td>1.1.2020</td>
<td>1.1.2021</td>
<td></td>
</tr>
<tr>
<td>1.10.</td>
<td>Propulsion performance tests and requirements regarding maximum design vehicle speed, maximum torque, maximum continuous rated or net power and maximum peak power</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.10.1.</td>
<td>Propulsion performance tests and requirements</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
<td></td>
</tr>
<tr>
<td>1.10.2.</td>
<td>Propulsion performance tests and requirements</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td></td>
</tr>
<tr>
<td>Point</td>
<td>Description</td>
<td>(Sub-)category</td>
<td>New types of vehicles obligatory</td>
<td>Existing types of vehicles obligatory</td>
<td>Last date of registration of compliant vehicles</td>
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<tr>
<td>2.</td>
<td>Application of delegated act on vehicle functional safety requirements, items as listed in Annex II (B) (3)</td>
<td></td>
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<td></td>
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<tr>
<td>2.1.</td>
<td>Application of delegated act on vehicle functional safety requirements, items as listed in Annex II (B) (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.</td>
<td>Application of delegated act on vehicle functional safety requirements, items as listed in Annex II (B) (3)</td>
<td></td>
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</tr>
<tr>
<td>2.3.</td>
<td>Annex VIII, enhanced safety features (3)</td>
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<tr>
<td>2.3.2.</td>
<td>Safe cornering device (differential or equivalent)</td>
<td>L1e-L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td></td>
</tr>
<tr>
<td>2.3.3.</td>
<td>Advanced Brake Systems, obligatory fitting</td>
<td>L3e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td>—</td>
</tr>
<tr>
<td>Point</td>
<td>Description</td>
<td>(Sub-)category</td>
<td>New types of vehicles obligatory</td>
<td>Existing types of vehicles obligatory</td>
<td>Last date of registration of compliant vehicles</td>
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<tr>
<td>3.</td>
<td>Application of delegated act on vehicle construction requirements, items as listed in Annex II (C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.</td>
<td>Application of delegated act on vehicle construction requirements, items as listed in Annex II (C)</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
<td></td>
</tr>
<tr>
<td>3.2.</td>
<td>Application of delegated act on vehicle construction requirements, items as listed in Annex II (C)</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
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</tr>
<tr>
<td>Point</td>
<td>Description</td>
<td>(Sub-)category</td>
<td>New types of vehicles obligatory</td>
<td>Existing types of vehicles obligatory</td>
<td>Last date of registration of compliant vehicles</td>
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<td>4.</td>
<td>Application of implementing act on administrative requirements</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4.1.</td>
<td>Application of implementing act on administrative requirements</td>
<td>L1e, L2e, L6e</td>
<td>1.1.2017</td>
<td>1.1.2018</td>
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</tr>
<tr>
<td>4.2.</td>
<td>Application of implementing act on administrative requirements</td>
<td>L3e, L4e, L5e, L7e</td>
<td>1.1.2016</td>
<td>1.1.2017</td>
<td></td>
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</tbody>
</table>

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.
### ANNEX V

#### (A) Environmental tests and requirements

L-category vehicles may be type-approved only if they comply with the following environmental requirements:

<table>
<thead>
<tr>
<th>Test type</th>
<th>Description</th>
<th>Requirements: limit values</th>
<th>Subclassification criteria in addition to Article 2 and Annex I</th>
<th>Requirements: test procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Tailpipe emissions after cold start</td>
<td>Annex VI (A)</td>
<td>UNECE global technical regulation No 2, Chapter 6.3. L-category vehicles equipped with a combustion engine having a displacement &lt; 50 cm³ and travelling with ( v_{\text{max}} &lt; 50 \text{ km/h} ) shall be attributed to class I vehicles.</td>
<td></td>
</tr>
</tbody>
</table>
| II        | — PI or Hybrid (\(^5\)) equipped with PI: emissions at idling and increased idling speed  
           — CI or Hybrid with CI engine: free acceleration test | Directive 2009/40/EC (\(^6\)) | | |
<p>| III       | Emissions of crankcase gases | Zero emission, closed crankcase. Crankcase emissions shall not be discharged directly into the ambient atmosphere from any vehicle throughout its useful life. | | |
| IV        | Evaporative emissions | Annex VI (C) | | |
| V         | Durability of pollution control devices | Annexes VI and VII | | |
| VI        | A test-type VI has not been attributed | Not applicable | Not applicable | |
| VII       | ( \text{CO}<em>2 ) emissions, fuel and/or electric energy consumption and electric range | Measurement and reporting, no limit value for type-approval purposes | UNECE global technical regulation No 2, Chapter 6.3. L-category vehicles equipped with a combustion engine having a displacement &lt; 50 cm³ and travelling with ( v</em>{\text{max}} &lt; 50 \text{ km/h} ) shall be attributed to class I vehicles. | |
| VIII      | OBD environmental tests | Annex VI (B) | UNECE global technical regulation No 2, Chapter 6.3. L-category vehicles equipped with a combustion engine having a displacement &lt; 50 cm³ and travelling with ( v_{\text{max}} &lt; 50 \text{ km/h} ) shall be attributed to class I vehicles. | |
| IX        | Sound level | Annex VI (D) | When UNECE regulations Nos 9, 41, 63 or 92 replace the EU proprietary requirements set out in the delegated act on environmental and propulsion performance requirements, the (sub-)classification criteria laid down in those UNECE regulations (Annex 6) shall be selected with reference to test type IX sound level tests. | |</p>
<table>
<thead>
<tr>
<th></th>
<th>Vehicle with PI engines including hybrids</th>
<th>Flex-fuel</th>
<th>Flex-fuel Mono-fuel</th>
<th>Pure electric vehicle or vehicle propelled with compressed air (CA)</th>
<th>Hydrogen Fuel cell vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mono-fuel (20)</td>
<td>Bi-fuel</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Petrol (E5) (19)</td>
<td>Petrol (E5)</td>
<td>Petrol (E5)</td>
<td>Diesel (B5)</td>
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<tr>
<td></td>
<td>LPG</td>
<td>LPG</td>
<td>Ethanol (E85)</td>
<td>H₂NG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NG/Biogas (both fuels)</td>
<td>H₂</td>
<td>H₂</td>
<td>Biodiesel</td>
<td></td>
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<tr>
<td>Type I test (19)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (B5 only)</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
</tr>
<tr>
<td>Type II test (19),</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (B5 only)</td>
<td>Yes</td>
</tr>
<tr>
<td>including smoke opacity for CI only</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
</tr>
<tr>
<td>Type III test (19)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (B5 only)</td>
<td>No</td>
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<tr>
<td></td>
<td>No</td>
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<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
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<tr>
<td>Type IV test (19)</td>
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<td>No/Yes for CA</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
</tr>
<tr>
<td>Type V test (19)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (B5 only)</td>
<td>No</td>
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<tr>
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<td>No</td>
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<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
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<tr>
<td>Type VII test (19)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (B5 only)</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No/Yes for CA</td>
<td>No</td>
</tr>
</tbody>
</table>

(19) EN L 60/114 Official Journal of the European Union 2.3.2013
| Type VIII test | Yes | Yes | Yes | Yes | Yes (petrol only) | Yes (petrol only) | Yes (petrol only) | Yes (NG/biometane only) | Yes (B5 only) | Yes | No | No |
| Type IX test | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | No |

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.
### ANNEX VI

Pollutant emission limit values, OBD thresholds and sound-level limit values for type-approval and conformity of production

(A) Tailpipe emission limits after cold start

(A1) Euro 4

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>Propulsion class</th>
<th>Euro level</th>
<th>Mass of carbon monoxide (CO)</th>
<th>Mass of total hydrocarbons (THC)</th>
<th>Mass of oxides of nitrogen (NOₓ)</th>
<th>Mass of particulate matter (PM)</th>
<th>Test cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td>PI/CI/Hybrid</td>
<td>Euro 4</td>
<td>560</td>
<td>100</td>
<td>70</td>
<td></td>
<td>ECE R47</td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped</td>
<td>PI/CI/Hybrid</td>
<td>Euro 4</td>
<td>1 000</td>
<td>630</td>
<td>170</td>
<td></td>
<td>ECE R47</td>
</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td>PI/CI/Hybrid</td>
<td>Euro 4</td>
<td>1 900</td>
<td>730</td>
<td>170</td>
<td></td>
<td>ECE R47</td>
</tr>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycles with and without side-car</td>
<td>PI/PI Hybrid, v_max &lt; 130 km/h</td>
<td>Euro 4</td>
<td>1 140</td>
<td>380</td>
<td>70</td>
<td>—</td>
<td>WMTC, stage 2</td>
</tr>
<tr>
<td>L5e-A</td>
<td>Tricycle</td>
<td>PI/PI Hybrid, v_max &gt; 130 km/h</td>
<td>Euro 4</td>
<td>1 140</td>
<td>170</td>
<td>90</td>
<td>—</td>
<td>WMTC, stage 2</td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td>CI/CI Hybrid</td>
<td>Euro 4</td>
<td>1 000</td>
<td>100</td>
<td>300</td>
<td>80 (8)</td>
<td>WMTC, stage 2</td>
</tr>
<tr>
<td>L5e-B</td>
<td>Commercial tricycle</td>
<td>PI/PI Hybrid</td>
<td>Euro 4</td>
<td>2 000</td>
<td>550</td>
<td>250</td>
<td></td>
<td>ECE R40</td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td>PI/PI Hybrid</td>
<td>Euro 4</td>
<td>1 900</td>
<td>730</td>
<td>170</td>
<td></td>
<td>ECE R47</td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadrimal Safety</td>
<td>CI/CI Hybrid</td>
<td>Euro 4</td>
<td>1 000</td>
<td>100</td>
<td>550</td>
<td>80 (8)</td>
<td>ECE R47</td>
</tr>
<tr>
<td>L7e-B</td>
<td>Heavy all terrain quad</td>
<td>PI/PI Hybrid</td>
<td>Euro 4</td>
<td>2 000</td>
<td>550</td>
<td>250</td>
<td></td>
<td>ECE R40</td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadrimal Safety</td>
<td>CI/CI Hybrid</td>
<td>Euro 4</td>
<td>1 000</td>
<td>100</td>
<td>550</td>
<td>80 (8)</td>
<td>ECE R40</td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td>PI/CI/Hybrid</td>
<td>Euro 5</td>
<td>500</td>
<td>100</td>
<td>68</td>
<td>60</td>
<td>4.5 (9)</td>
</tr>
<tr>
<td>L1e-B-L7e</td>
<td>All other L-category vehicles</td>
<td>PI/PI Hybrid</td>
<td>Euro 5</td>
<td>1000</td>
<td>100</td>
<td>68</td>
<td>60</td>
<td>4.5 (9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI/CI Hybrid</td>
<td></td>
<td>500</td>
<td>100</td>
<td>68</td>
<td>90</td>
<td>4.5</td>
</tr>
</tbody>
</table>
### (B) On-board diagnostics emission thresholds

#### (B1) Euro 4, OBD stage I

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>Propulsion class</th>
<th>Euro level</th>
<th>Mass of carbon monoxide ((CO))</th>
<th>Mass of total hydrocarbons ((THC))</th>
<th>Mass of oxides of nitrogen ((NO_x))</th>
<th>Test cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L6e-A</td>
<td>On-road light quad</td>
<td>PI, CI or Hybrid</td>
<td>Euro 4</td>
<td>3 610</td>
<td>2 690</td>
<td>850</td>
<td>ECE R47</td>
</tr>
<tr>
<td>L3e (5)</td>
<td>Two-wheel motorcycle with and without side-car</td>
<td>PI/PI Hybrid (v_{\text{max}} &lt; 130\ km/h)</td>
<td>Euro 4</td>
<td>2 170</td>
<td>1 400</td>
<td>350</td>
<td>WMTC, stage 2</td>
</tr>
<tr>
<td>L4e (5)</td>
<td>Tricycle</td>
<td>PI/PI Hybrid (v_{\text{max}} \geq 130\ km/h)</td>
<td>Euro 4</td>
<td>2 170</td>
<td>630</td>
<td>450</td>
<td>WMTC, stage 2</td>
</tr>
<tr>
<td>L5e-A</td>
<td>Heavy on-road quad</td>
<td>CI/CI Hybrid</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### (B2) Euro 5, OBD stage I and OBD stage II (6)

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>Propulsion class</th>
<th>Euro level</th>
<th>Mass of carbon monoxide ((CO))</th>
<th>Mass of Non-methane hydrocarbons ((NMHC))</th>
<th>Mass of oxides of nitrogen ((NO_x))</th>
<th>Mass of particulate matter ((PM))</th>
<th>Test cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3e-L7e (6)</td>
<td>All L category vehicles except category L1e and L2e</td>
<td>PI/PI Hybrid</td>
<td>Euro 5</td>
<td>1 900</td>
<td>250</td>
<td>300</td>
<td>50</td>
<td>Revised WMTC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CI/CI Hybrid</td>
<td>Euro 5</td>
<td>1 900</td>
<td>320</td>
<td>540</td>
<td>50</td>
<td>Revised WMTC</td>
</tr>
</tbody>
</table>
(C) Evaporative emission limits

(C1) Euro 4

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>Propulsion class</th>
<th>Euro level</th>
<th>Mass of total hydrocarbons (THC) (mg/test)</th>
<th>Test cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycle (1) with and without side-car</td>
<td>PI (1)</td>
<td>Euro 4</td>
<td>2 000</td>
<td>SHED</td>
</tr>
<tr>
<td>L4e (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5e-A</td>
<td>Tricycle</td>
<td>PI (1)</td>
<td>Euro 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td>PI (1)</td>
<td>Euro 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td>PI (1)</td>
<td>Euro 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Class</td>
<td>Vehicle category name</td>
<td>Propulsion Class</td>
<td>Euro level</td>
<td>Permeation test (mg/m²/day)</td>
<td>Mass of total hydrocarbons (THC) in SHED test (mg/test)</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------</td>
<td>------------------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td>PI (11)</td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L3e L4e (7)</td>
<td>Two-wheel motorcycle with and without side-car</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L5e-A</td>
<td>Tricycle</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L5e-B</td>
<td>Commercial tricycle</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadri-mobile</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L7e-B</td>
<td>All terrain quad</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadri-mobile</td>
<td></td>
<td>Euro 5</td>
<td>1 500</td>
<td>1 500</td>
</tr>
<tr>
<td>Vehicle category</td>
<td>Vehicle category name</td>
<td>Euro 4 sound level (dB(A))</td>
<td>Euro 4 test procedure</td>
<td>Euro 5 sound level (dB(A))</td>
<td>Euro 5 test procedure</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------</td>
<td>-----------------------------</td>
<td>-----------------------</td>
<td>-----------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td>63 (14)</td>
<td>Delegated act/UNECE regulation No 63</td>
<td>UNECE regulation No 63</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped v&lt;sub&gt;max&lt;/sub&gt; ≤ 25 km/h</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two-wheel moped v&lt;sub&gt;max&lt;/sub&gt; ≤ 45 km/h</td>
<td>71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td>76</td>
<td>Delegated act/UNECE regulation No 9</td>
<td>UNECE regulation No 9</td>
<td></td>
</tr>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycle  Engine capacity ≤ 80 cm&lt;sup&gt;3&lt;/sup&gt;</td>
<td>75</td>
<td>Delegated act/UNECE regulation No 41</td>
<td>UNECE regulation No 41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two-wheel motorcycle 80 cm&lt;sup&gt;3&lt;/sup&gt; &lt; Engine capacity ≤ 175 cm&lt;sup&gt;3&lt;/sup&gt;</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two-wheel motorcycle Engine capacity &gt; 175 cm&lt;sup&gt;3&lt;/sup&gt;</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L4e</td>
<td>Two-wheel motorcycle with side-car</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5e-A</td>
<td>Tricycle</td>
<td>80</td>
<td>Delegated act/UNECE regulation No 9</td>
<td>UNECE regulation No 9</td>
<td></td>
</tr>
<tr>
<td>L5e-B</td>
<td>Commercial tricycle</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td>80</td>
<td>Delegated act/UNECE regulation No 63</td>
<td>UNECE regulation No 63</td>
<td></td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadrimobile</td>
<td>80</td>
<td>Delegated act/UNECE regulation No 9</td>
<td>UNECE regulation No 9</td>
<td></td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L7e-B</td>
<td>Heavy all terrain quad</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadrimobile</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.
## ANNEX VII

### Durability of pollution control devices

#### (A) Durability mileage of L-category vehicles

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>Euro 4 durability mileage (km) and Euro 5 durability mileage (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-A</td>
<td>Powered cycle</td>
<td></td>
</tr>
<tr>
<td>L3e-AxT (x = 1, 2 or 3)</td>
<td>Two-wheel Trial motorcycle</td>
<td>5 500</td>
</tr>
<tr>
<td>L1e-B</td>
<td>Two-wheel moped</td>
<td></td>
</tr>
<tr>
<td>L2e</td>
<td>Three-wheel moped</td>
<td></td>
</tr>
<tr>
<td>L3e-AxT (x = 1, 2 or 3)</td>
<td>Two-wheel Enduro motorcycle</td>
<td>11 000</td>
</tr>
<tr>
<td>L6e-A</td>
<td>Light on-road quad</td>
<td></td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy all terrain quad</td>
<td></td>
</tr>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycle, with and without side-car</td>
<td></td>
</tr>
<tr>
<td>L4e (7) (v&lt;sub&gt;max&lt;/sub&gt; &lt; 130 km/h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L5e</td>
<td>Tricycle</td>
<td>20 000</td>
</tr>
<tr>
<td>L6e-B</td>
<td>Light quadri-mobile</td>
<td></td>
</tr>
<tr>
<td>L7e-C</td>
<td>Heavy quadri-mobile</td>
<td></td>
</tr>
<tr>
<td>L3e</td>
<td>Two-wheel motorcycle, with and without side-car</td>
<td></td>
</tr>
<tr>
<td>L4e (7) (v&lt;sub&gt;max&lt;/sub&gt; ≥ 130 km/h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L7e-A</td>
<td>Heavy on-road quad</td>
<td></td>
</tr>
</tbody>
</table>

#### (B) Deterioration Factors (DF)

<table>
<thead>
<tr>
<th>Vehicle category</th>
<th>Vehicle category name</th>
<th>CO</th>
<th>HC</th>
<th>NO&lt;sub&gt;x&lt;/sub&gt;</th>
<th>PM</th>
<th>CO</th>
<th>THC</th>
<th>NMHC</th>
<th>NO&lt;sub&gt;x&lt;/sub&gt;</th>
<th>PM (17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1e-L7e</td>
<td>All</td>
<td>1,3</td>
<td>1,2</td>
<td>1,2</td>
<td>1,1</td>
<td>1,3</td>
<td>1,3</td>
<td>1,1</td>
<td>1,3</td>
<td>1,1</td>
</tr>
</tbody>
</table>

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.
## Enhanced functional safety requirements

<table>
<thead>
<tr>
<th>Topic</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory fitting of advanced brake systems</td>
<td>(a) new motorcycles (^{(22)}) of the L3e-A1 subcategory which are made available on the market, registered and entering into service are to be equipped with either an anti-lock or a combined brake system or both types of advanced brake systems, at the choice of the vehicle manufacturer;</td>
</tr>
<tr>
<td></td>
<td>(b) new motorcycles of subcategories L3e-A2 and L3e-A3 which are made available on the market, registered and entering into service to be equipped with an anti-lock brake system.</td>
</tr>
<tr>
<td>Exemption:</td>
<td>L3e-AxE ((x = 1, 2 \text{ or } 3, \text{two-wheel Enduro motorcycles})) and L3e-AxT ((x = 1, 2 \text{ or } 3, \text{two-wheel Trial motorcycles})) are exempted from the obligatory fitting of advanced brake systems.</td>
</tr>
<tr>
<td>Safe cornering on hard-surfaced roads</td>
<td>L-category vehicles are to be constructed such that each of the wheels can rotate at different speeds at all times in order to allow safe cornering on hard-surfaced roads. If a vehicle is equipped with a lockable differential, it must be designed to be normally unlocked.</td>
</tr>
<tr>
<td>Improvement of vehicle and rider visibility by automatic switching-on of lighting</td>
<td>In order to improve their visibility, L-category vehicles are to be equipped with the following:</td>
</tr>
<tr>
<td></td>
<td>(a) for L1e vehicles: lighting and light-signalling devices in compliance with UNECE regulation No 74 Rev. 2, which requires the lighting system to be turned on automatically;</td>
</tr>
<tr>
<td></td>
<td>(b) for L3e vehicles: at the choice of the vehicle manufacturer, either lighting and light-signalling devices in compliance with UNECE regulation No 53 Rev. 2 and its amendments 1 and 2, or dedicated day-time running lights (DRL) complying with UNECE regulation No 87 Rev. 2 and its amendments 1 and 2;</td>
</tr>
<tr>
<td></td>
<td>(c) for all other subcategories of L-category vehicles: a lighting system automatically turning on or at the choice of the manufacturer, dedicated day-time running lights that automatically switch on(^{(23)}).</td>
</tr>
<tr>
<td>Topic</td>
<td>Requirements</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
</tr>
<tr>
<td>(Annex II (B) 3) Electrical Safety</td>
<td>Vehicles of category L, with respect to the electric power train when equipped with one or more traction motor(s) operated by electric power and not permanently connected to the grid, as well as their high voltage components and systems which are galvanically connected to the high voltage bus of the electric power train, shall be designed so as to avoid any risk to electrical safety, in using relevant requirements of UNECE regulation No 100 and ISO 13063.</td>
</tr>
<tr>
<td>(Annex II (B) 4) Requirements on manufacturer declaration requirements regarding endurance testing of functional safety critical systems, parts and equipment</td>
<td>The vehicle manufacturer shall declare that vehicles produced in conformity with Article 22(2), shall be able to withstand normal use as intended for at least the distance travelled as specified below, within five years after first registration. The distance shall be 1,5 times the distance as specified in Annex VII in direct relation to the vehicle category in question and the emission stage (i.e. Euro level) according to which the vehicle is to be type-approved, however, the required distance shall not exceed 60 000 km for any vehicle category.</td>
</tr>
<tr>
<td>(Annex II (B) 5) Requirements on front and rear protective structures</td>
<td>Vehicles of category L, with respect to their front and rear structures, shall be designed to avoid pointed or sharp parts or projections which are directed outwards and which are likely to catch on or significantly increase the severity of injuries or chance of lacerations to vulnerable road users in case of a collision. This is applicable both for front and rear structure of the vehicle.</td>
</tr>
<tr>
<td>(Annex II (B) 10) Safety belt anchorages and safety belts</td>
<td>Mandatory requirements for safety belt anchorages and the installation of safety belts on vehicles of categories L2e, L5e, L6e and L7e fitted with bodywork.</td>
</tr>
<tr>
<td>(Annex II (B) 15) Requirements concerning vehicle occupant protection including interior fittings and vehicle doors</td>
<td>Vehicles of category L2e, L5e, L6e and L7e which are fitted with bodywork shall be designed to avoid any pointed or sharp parts or projections which are likely to significantly increase the severity of injuries to the driver and the passengers. Vehicles fitted with doors shall be designed to ensure that these doors are constructed with relevant latches and hinges.</td>
</tr>
<tr>
<td>(Annex II (B) 17) Requirements on vehicle structure integrity</td>
<td>The vehicle manufacturer shall declare that in case of a recall due to a serious safety risk, specific analysis of vehicle structures, components and/or parts by means of engineering calculations, virtual testing methods and/or structural testing will be made available immediately to the approval authority and the Commission upon request. Vehicle type-approval shall not be granted if there is reason to doubt that the vehicle manufacturer is able to provide such analysis.</td>
</tr>
</tbody>
</table>

NB: refer to the end of Annex VIII for an overview of the notes to the annexes.
Explanatory notes to Annexes I to VIII

(1) The power limits in Annex I are based on maximum continuous rated power for electric propelled vehicles and maximum net power for vehicles propelled with a combustion engine. The weight of a vehicle is considered equal to its mass in running order.

(2) Sub-classification of an L3e vehicle according to whether it has a design vehicle speed of less than or equal to 130 km/h or more than 130 km/h is independent of its sub-classification into the propulsion performance classes L3e-A1 (although not likely to achieve 130 km/h), L3e-A2 or L3e-A3.

(3) 'X' means that this Regulation sets mandatory requirements with regard to the subject and category concerned; the detailed requirements are laid down in the referenced articles and document references in this table.

'IF' means ‘if fitted’. If the system, component or separate technical unit referred to in the table is fitted on the vehicle, because it is mandatory only for some of the vehicles falling into this category, it shall fulfil the requirements laid down in the delegated and implementing acts. Equally, if the vehicle manufacturer chooses to equip the vehicle with the system, component or separate technical unit on a voluntary basis, it shall fulfil the requirements laid down in the delegated and implementing acts.

Where a field of the table remains empty it means that this Regulation does not set requirements with regard to the subject and category concerned.

(4) Refer to Article 23(4) and (5).

(5) If the (hybrid) engine(s) is/are equipped with a stop/start feature, the manufacturer must ensure that the combustion engine is running in idle and at increased idle speed. The vehicle must be able to run the free acceleration test for propulsion including a CI engine.


(7) Only the base two-wheel motorcycle to which the side-car is fitted must meet the appropriate emission limits.

(8) CI only, also if e.g. a hybrid concept includes a CI engine.

(9) Applicable to petrol direct injection (DI) engines only.

(10) The environmental effect study in Article 23(4) and (5) will also report on the feasibility for L-category vehicles other than L3e, L5e-A and L7e-A to be emission-tested in a revised WMTC.

(11) PI engines running on petrol, petrol blends or ethanol.

(12) The cost-effectiveness of evaporative emission control will be assessed in the environmental effect study to be carried out for the Commission, as referred to in Article 23(4) and (5). A possible cost-effective evaporative fuel tank and fuel supply permeation testing will be assessed in this study as an alternative to the SHED test for the sub category vehicles which were not subject yet to evaporative emission testing, refer to Article 23(4) and (5).

(13) \( v_{\text{max}} \geq 130 \text{ km/h} \).

(14) Until the Union accedes to UNECE regulations Nos 9, 41, 63 and 92 and adopts those regulations in UNECE WP29 and in the Union, including the associated equivalent sound limits for the Euro 4 step (e.g. as set out in Annex 6 to UNECE regulation No 41 for L3e and L4e motorcycles), L-category vehicles shall comply with the limits as listed in Annex VI (D). When the UNECE regulations Nos 9, 41, 63 and 92 are adopted by the Union, these become mandatory including equivalent sound limits to the limits listed in Annex VI (D) and replace the testing procedures in the delegated act on environmental and propulsion performance requirements.

(15) The TBD Euro 5 sound limits are to be modified in a separate act adopted in accordance with the ordinary legislative procedure laid down in Article 294 of the Treaty on the Functioning of the European Union.

(16) A delegated act adopted pursuant to this Regulation contains the sound test procedures and will be replaced by UNECE regulations Nos 9, 41, 63 and 92.

(17) Only for PI DI and CI engines.

(18) Also applicable for hybrid vehicles.

(19) Refer to Annex V for the test type description, the references to the limit values and test procedures for test type I to IX.
(20) For electric/hybrid electric propelled vehicles only sound requirements for silent vehicles.

(21) Refer to Annex IV for the application dates of the enhanced safety requirements.

(22) Category L4e vehicles (motorcycles with side-car) are excluded from requirements (a) and (b) on the mandatory fitting of advanced brake systems.

(23) To allow a combustion engine to start running, the lighting system may be turned off during the engine cranking period for a consecutive period of less than or equal to 10 s.
### ANNEX IX

**Correlation table**
*(referred to in Article 81)*

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