



Proposal for a European Parliament and Council Regulation on the approval and market surveillance of two- or three-wheel vehicles and quadricycles – COM(2010) 542 final

ETRA Comments and Amendments for the benefit of electric cycles and light electric vehicles

Introduction

ETRA is the European professional association for independent bicycle, moped and motorcycle retailers.

ETRA's aim is to group these retailers in Europe and to defend and further their interests. ETRA represents some 5,000 companies (SMEs), which employ approximately 11,500 people in Belgium, the Czech Republic, Denmark, France, Germany, the Netherlands and the United Kingdom.

Furthermore, ETRA has 24 associated members. These are international companies/organisations active in the two-wheel sector, who believe in ETRA's work and who have therefore chosen to support that work through their membership. Our membership list is here: <http://www.etra-eu.com/members.asp>

ETRA has a firm belief in the future of electric cycles and light electric vehicles in Europe. We believe they offer a huge opportunity to grow the business. Today, 1 out of 8 new bicycles sold in the Netherlands is electric with an average value of € 2,000. We also believe electric cycles and light electric vehicles can contribute in a major way in the field of climate change, decarbonisation of transport, air quality, dependency on fossil fuels, industry restructuring, clean vehicle technologies, job creation as a new source of economic growth and cohesion for the European Union.

Unfortunately, today the market development of electric cycles and light electric vehicles is obstructed by legal constraints. In 2002, Directive 2002/24/EC has only excluded electrically assisted cycles with a maximum continuous rated power of 0.25 kW and assistance up to 25 km/h from a type-approval procedure, which was in essence designed for traditional combustion engine mopeds and motorcycles. Consequently, only these 0.25 kW-25 km/h electrically assisted cycles are now governed by a CE standard in combination with the Machinery and EMC Directive. This regulatory framework proves to be efficient, adequate and cost-effective, ensuring the necessary level of safety for these products. All other electrically assisted cycles and light electric vehicles however are subject to a type-approval procedure, which in essence has been designed for traditional combustion engine mopeds and motorcycles. This regulatory framework proves to be inappropriate, unnecessary, overprotective and cost-inefficient. Consequently, there are hardly any light electric vehicles other than 0.25 kW-25 km/h electrically assisted cycles on the European market.

Because not power but speed is of essence for the safety performance of vehicles, we hereafter present detailed and argued amendments to the Commission's proposal. Our amendments have two major objectives:

1. the exclusion of all pedal assisted cycles with assistance up to 25 km/h and all very light electric vehicles with a weight of ≤ 25 kg and a maximum design speed up to 25 km/h from the type-approval legislation in order to allow for a far more appropriate regulatory framework consisting of the Machinery and EMC Directive, possibly in combination with CEN standardisation;
2. the development of an appropriate procedure for those electrically assisted cycles and light electric vehicles which are not excluded from the regulatory framework governed by the type-approval procedure

Furthermore, we propose a few amendments, which are aimed at defending the interests of the retailers whom we represent.

Comments and Amendments

Whereas:

(7) This Regulation should contain substantive requirements for environmental protection and vehicle functional safety. The main elements of this Regulation are based on the results of an Impact Assessment and analysing different options by listing possible advantages and disadvantages in terms of economic, environmental, safety and societal aspects. Qualitative and quantitative aspects were both included in this analysis. After comparison of the different options and identification of preferred options, they were chosen to form the basis for this Regulation.

Comment:

According to the European Commission's impact assessment, the best option for electric cycles is to refine vehicle categorisation by introducing new subcategories. ETRA strongly disagrees with these conclusions for both electric cycles and innovative light electric vehicles. ETRA is convinced that the recategorisation as proposed by the Commission will result in a high degree of confusion for industry and other stakeholders, incoherent regulations, worse results for noise, emissions and fuel consumption, obstruction of the market development of electric cycles and light electric vehicles, inappropriate safety measures and a change for the worse in efforts to meet the technical requirements as well as the administrative obligations that result from these requirements. The full argumentation behind these statements is in the document "ETRA's Comments on the Impact Assessment of the Proposal for a Regulation of the European Parliament and of the Council on the Approval and Market Surveillance of Two- or Three-Wheel Vehicles and Quadricycles as far as Electrical Cycles are concerned". That document is in Annex I.

(8) The objectives of this Regulation should not be affected by the fitting of certain systems, components or separate technical units after vehicles have been sold, 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 sold, registered or are entering into service.

Comment:

In the case of electric cycles and light electric vehicles, it is essential to limit type-approval of systems, components or separate technical units to an absolute minimum and to make it applicable only to those systems, components or separate technical units which have a real and demonstrable impact on functional safety. A very large number of systems, components or separate technical units in electric cycles and light electric vehicles are also used in similar vehicles, which are excluded from the type-approval procedure. This will result in a high level of confusion in the business. Companies will find themselves confronted with identical components both type-approved and non-type-approved. This situation needs to be avoided as much as possible.

(9) Directive 95/1/EC of the European Parliament and 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 gave the possibility 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, this 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.

Comment:

The Commission abandons the option to limit the power of motorcycles to 74 kW for lack of evidence for the correlation between safety and absolute power limitation. At the same time, the Commission insists on keeping a 0.25 kW limit on vehicles which are also subject to a speed limit of 25 km/h, as a result of which vehicles exceeding this 0.25 kW limit become subject to an inappropriate, unnecessary, overprotective and expensive legislative framework. We believe that for consistency reasons, the same consideration needs to be made for both categories of vehicles. Therefore, electrically assisted cycles should be excluded from this Regulation without a power output limit as we propose in our amendment to Article 2(h).

(11) With the aim of simplifying and accelerating the 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 legislation 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 delegate to the Commission the power to lay down the technical specifications.

Amendment:

(11) With the aim of simplifying and accelerating the 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 legislation 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 delegate to the Commission the power to lay down the technical specifications. **The provisions need to be adjusted to the different types of vehicles.**

Justification:

ETRA believes it is essential not to apply one and the same set of provisions on functional safety and environmental performance to all vehicles covered by the proposed Regulation. As an example, the functional safety and environmental performance of a bicycle powered by an electric motor does not require the same provisions as a combustion engine moped or motorcycle. The Commission has given the initial impetus to such a system without however following it through. This results in unnecessary requirements for cycles with electric motors and for light electric vehicles. In other cases requirements may well be useful but they need to be adapted to cycles with electric motors and light electric vehicles. The system needs to be developed in a consistent and coherent way. Therefore, we propose the necessary amendments further on in this document as we are dealing with the relevant articles.

(13) 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 sold, registered and entered into service.

Comment:

As for cycles with an electric motor and light electric vehicles the proposed limits are low to the extent that they will prove to be unusable. Therefore, further on in this document, we propose an amendment to article 40.1 with justification for that amendment.

Article 2 (g) vehicles primarily intended for off-road use and designed to travel on unpaved surfaces;

(i) self-balancing machines;

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

Amendment:

Article 2 (i) self-balancing machines **with a maximum design speed of 25 km/h. Like cycles with pedal assistance excluded from the scope of this regulation under Art. 2(h), such machines shall not be considered motor vehicles.**

(j) vehicles not equipped with at least one seating position **with a maximum design speed of 25 km/h. Like cycles with pedal assistance excluded from the scope of this regulation under Art. 2(h), such vehicles shall not be considered motor vehicles.**

Justification:

ETRA fully agrees with the exclusion from the type-approval of the two above-mentioned vehicle categories but believes it would be useful to set a speed limit of 25 km/h. Low speed self balancing machines and other innovative technologies which are functionally and in terms of performance comparable to bicycles or pedal assisted cycles should be treated in the same way and should therefore be excluded from the scope of the regulation. While it is difficult to categorize and bring all innovative technologies currently available or being developed (e.g. Segway, YikeBike and Trikke products), under one roof, it is certain that a maximum design speed of 25 km/h represents a more than reasonable guarantee that that technology will have pedal cycle-like characteristics in terms of performance, mobility function, footprint and interaction with other users of

public space. To ensure European-wide acceptance of such innovative technologies which are clean, intelligent and safe, EU institutions should use this Regulation to indicate explicitly to member states that, like in the case of electrically assisted cycles excluded from the scope of the Regulation, these technologies should be treated like bicycles in terms of access to public space and helmet, lighting and insurance requirements. In the case of the self-balancing Segway PT for instance, numerous independent studies carried out inter alia in Germany, the Netherlands, USA and Canada concluded that this technology is as safe or safer than the bicycle. It is not a coincidence that all the studies used the bicycle as a benchmark to assess the safety of these devices.

We also propose to add of "*Like cycles with pedal assistance excluded from the scope of this regulation under Art. 2(h), such vehicles shall not be considered motor vehicles.*" This provision is meant to harmonise the categorisation of vehicles, which are exempt from type-approval. Today, at least one member state has additional requirements for excluded pedal assisted cycles, resulting in certain cycles, which are excluded from type-approval nonetheless being categorised as motor vehicles (thus requiring registration, insurance and the rider to have a driver's licence). This bizarre disparity can be prevented by means of the proposed addition.

Article 2 (h) cycles with pedal assistance which are equipped with an auxiliary electric motor having a maximum continuous rated power of 0.25 kW, where the output of the motor is cut off when the cyclist stops pedalling and is otherwise progressively reduced and finally cut off as the vehicle reaches a speed of 25 km/h;

Amendment:

Article 2 (h) "*cycles with pedal assistance which are equipped with auxiliary electric propulsion of which the output is cut off as the vehicle reaches a speed of 25 km/h, or sooner, if the cyclist stops pedaling. Such cycles shall not be considered motor vehicles.*"

Justification:

- The term "*auxiliary electric propulsion*" instead of "*an auxiliary electric motor*" will facilitate the development of vehicles with more than one motor. This provision opens a lot more technical possibilities, for instance cargo/transport vehicles or three-wheelers for physically impaired with a small motor providing a very high torque for the riding off phase and a main motor to assist the pedaling.
- Elimination of a specification of a maximum power limit: today, the European electric bicycle market consists for 95% of vehicles with assistance up to 25 km/h and a maximum continuous rated power of 0.25 kW. There are hardly any pedal assisted cycles with a higher maximum continuous rated power on the market because they are subject to the type-approval legislation, which has a prohibitive effect. The majority of companies active in this sector have no prior experience with type-approval. They experience the procedure as extremely complicated both technically and administratively. There are only few technical services available to assist them in the process of type-approval. Furthermore, the current requirements as well as the proposed requirements are not well adapted to these vehicles. Type-approval is not cost-efficient. To put things in perspective, the European market leader for excluded pedal assisted bicycles is estimated to sell around 50,000 units at an average selling price of ± € 2,000. As for pedal assisted cycles with assistance up to 25 km/h and a maximum continuous rated power of 0.25 kW, CEN TC 333 "Cycles" has developed EN 15194, which has been implemented by the member states in 2009. Furthermore, these vehicles have to comply with the Machinery Directive 2006/42/EC and with the EMC Directive 2004/108/EC. The above-mentioned standard and the two Directives cover fundamental provisions on functional safety required for this type of vehicle. This regulating procedure proves to be far more adequate and cost-efficient for pedal assisted cycles than the type-approval procedure. Therefore, ETRA strongly insists that the European institutions create a framework which allows for determining the most appropriate maximum continuous rated power limits and the matching technical requirements in a well-founded way, rather than holding on to the randomly determined 0.25 kW limit both in current legislation and in the Commission's proposal. As stated before, this limit proves to obstruct the market.

The exclusion of cycles with auxiliary electric propulsion up to 25 km/h from the type-approval procedure without specifying a maximum continuous rated power limit will allow CEN in consultation with the relevant industry to set the appropriate limits. Upon that CEN can amend EN 15194 so as to cover vehicles with a higher maximum continuous rated power or if necessary to initiate new standards. Pedal assisted cycles are now appealing to a much broader and more varied public throughout the EU. This development however shows that 0.25 kilowatts is not always sufficient to produce comfortable and safe electric cycles that perform at the required level. The current power limit of 0.25 kilowatts proves to be insufficient, for instance in hilly and mountainous areas, for people suffering from obesity, for three-wheelers developed for physically impaired people, for vehicles developed to transport cargo, ...

For cycles used in the above-mentioned conditions, the possibility to increase the power will have a positive effect on the safety because it will provide the cyclists far more reliability. Since the cyclist can rely on a cycle that in all conditions will perform at the required level, he will also enjoy more safety and comfort.

The increase of the power will have no negative effect on the safety, because safety is almost exclusively linked to the speed, **for which this proposal holds no change**. □

The potential for risk of injury to self and others is directly related to the kinetic energy of the rider-vehicle combination, which is proportional to the mass and the square of the velocity. The method of propulsion (pedalled, electric, or a blend thereof) is irrelevant in determining the kinetic energy and injury potential. The document "Speeding", published as part of Safetynet, supports the argument that accident risk and injury seriousness increase with the square of speed (reference: The EU SafetyNet (2009) Speeding <retrieved 28 Dec 2010> , see:

http://ec.europa.eu/transport/road_safety/specialist/knowledge/pdf/speeding.pdf). SafetyNet is an Integrated Project funded by DG-TREN of the European Commission.

Finally, most member states categorise pedal assisted cycles that are excluded from the type-approval procedure as bicycles. Consequently, riders are allowed to use the vehicles without any additional conditions such as helmets, drivers license, insurance. Vehicles that have to comply with the type-approval are subject to obligations related to helmets, drivers license and insurance, obligations, which have no substantiated foundation for pedal assisted cycles with a speed limit of 25 k/h and deter consumers from buying and using these vehicles. Thus, the exclusion of pedal assisted cycles without specification of a maximum continuous rated power limit from the type-approval will allow for a larger range of vehicles to be used without unnecessary preconditions, which in turn will boost the market.

- **Deletion of "progressively reduced and finally"**: the companies and organisations supporting ETRA's position unanimously agree that this requirement has no use. Since the requirement is not further specified, the industry does not know how to comply with it. The characteristic line of the motor management is a complex combination of pedaling frequency, actual speed and pedaling power. The essential requirement in the definition to ensure safe use of the vehicle is that the motor is cut off at 25 km/h. The requirement of progressive reduction has no bearing whatsoever on the safe use of the vehicle. This is the reason why we propose to delete the above-mentioned words.
- **Addition of "such cycles shall not be considered motor vehicles"**: this provision is meant to harmonise the categorisation of vehicles, which are exempt from type-approval. Today, at least one member state has additional requirements for excluded pedal assisted cycles, resulting in certain cycles which are excluded from type-approval nonetheless being categorised as motor vehicles (thus requiring registration, insurance and the rider to have a driver's licence). This bizarre disparity can be prevented by means of the proposed addition.

Amendment:

New article 2(k) "Vehicles equipped with an electric motor, a maximum design speed of \leq 25 km/h and an unladen mass of \leq 25 kg. Such vehicles shall not be considered motor vehicles.

Justification:

As explained in the justification for our previous amendment, the potential risk of injury to self and others is directly related to the kinetic energy of the rider-vehicle combination, which is proportional to the weight (mass) and the square of the velocity.

Consequently, the above-mentioned very light electric vehicles would present the same or less potential risk of injury than a bicycle or electrically assisted cycle in the case of an accident. Based on their weight and speed, these vehicles would naturally blend with bicycles and electrically assisted cycle traffic on bike paths and roads.

Assuming a rider weight of 70kg, a vehicle of its maximum allowed weight of 25kg and moving at its maximum speed of 25 km/h, the rider-vehicle combination would present a kinetic energy of 2.29 kilojoules (KJ). If the same rider were on an electrically assisted cycle with a maximum continuous rated power of 0.25 kW and assistance up to 25 km/h, at a speed of 25 km/h, rider and vehicle together would present 5% more kinetic energy than the same rider on the 25 kg very light electric vehicle. By means of muscular power an electrically assisted cycle can be pedalled beyond 25 km/h to a faster speed. If the rider were pedalling at 30 km/h, he and his electrically assisted cycle would present 50% more kinetic energy than the very light electric vehicle. Lightweight conventional bicycles can be pedalled at even higher speeds. So in the case of a 70 kg rider pedalling a 10kg lightweight bicycle at 35 km/h, rider and vehicle would present 65% more kinetic energy than the light electric vehicle. For additional comparison, a 70kg person running at 20 km/hr would produce 1.69 KJ.

In conclusion: vehicles with a weight up to 25 kg and a maximum design speed of 25 km/h would not present a greater risk to its rider and other road users than a conventional bicycle or an electrically assisted cycle.

Allowing them to be ridden under the same conditions, will contribute to reducing congestion and benefit the environment.

Vehicle type and speed	Kinetic Energy in Kilojoules, assuming rider weight 70 kg
Human running without vehicle, 25 km/h	1.69 KJ
Very Lightweight Bicycle or Electric Vehicle, 10kg riding at 25km/h	1.93 KJ
Light Electric Vehicle, 25kg riding at 25km/hr	2.29 KJ
Electrically assisted cycle, 30 kg, assistance up to 25 km/h, maximum power 0.25 kW riding at 25km/h	2.41 KJ
Electrically assisted cycle, 30 kg, assistance up to 25 km/h, maximum power 0.25 kW riding at 30 km/h	3.47 KJ
Very Lightweight Bicycle, 10kg riding at 35km/h	3.78 KJ
Moped (L1Be), 50kg riding at 45 km/h	4.09 KJ

Type-approval has a prohibitive effect on these vehicles. The current requirements as well as the proposed requirements are not well adapted to these vehicles. Exclusion from type-approval would make them subject to the above-mentioned Machinery and EMC Directive, which hold fundamental provisions on functional safety. Furthermore, exclusion would allow CEN, if necessary, to further refine and develop safety requirements through standardisation.

Finally, most member states tend not to submit vehicles that are excluded from the type-approval procedure to additional conditions such as helmets, drivers license, insurance. Thus, the exclusion of very light electric vehicles will allow for a larger range of vehicles to be used without unnecessary preconditions, which in turn will boost the market.

Article 3.40. ‘distributor’ means any natural or legal person in the supply chain, other than the manufacturer or the importer, who sells, registers or is responsible for the entry into service of a vehicle, system, component or separate technical unit on the Union market;

Amendment:

Article 3.40. ‘distributor’ shall mean any natural or legal person in the supply chain, other than the manufacturer or the importer, who makes a vehicle, system, component or separate technical unit available on the market;

Justification:

We do not understand why the definition of ‘distributor’ in the proposed Regulation differs from the definition in decision No 768/2008/EC of 9 July 2008 on a common framework for the marketing of products, whereas overall the proposed Regulation is in line with the New Legislative Framework. We believe that for the benefit of clarity and legal certainty, the definition should be brought in line with the New Legislative Framework. This amendment is also required for a clear and unambiguous interpretation of Article 15.

Amendment:

New article 3.42 ‘making available on the market’ shall mean any supply of a product for distribution, consumption or use on the Community market in the course of a commercial activity, whether in return for payment or free of charge;

Justification:

Following the aligning of the definition of ‘distributor’ in the proposed Regulation to the definition Decision No 768/2008/EC of 9 July 2008 on a common framework for the marketing of products, it is necessary to also introduce the same definition of ‘making available on the market’. As a result, all definitions in the proposed Regulation following on to the definition of ‘economic operator’ will need to be renumbered. This amendment is also required for a clear and unambiguous interpretation of Article 15.

Article 4 (a) Category L1e vehicle (light two-wheel powered vehicle), sub-categorised into:

- (i) **L1Ae vehicle (powered cycle)= according to Annex I**
- (1) two wheels and powered by a propulsion as listed under Article 4(3) and**
 - (2) engine capacity ≤ 50 cm³ if a PI engine forms part of the vehicle's propulsion configuration.**
 - (3) primary aim to aid pedalling and vehicle equipped with an auxiliary propulsion and**
 - (4) maximum design speed ≤ 25 km/h and**
 - (5) output of auxiliary propulsion is progressively reduced and finally cut off as vehicle reaches a speed of 25 km/h and**
 - (6) the auxiliary propulsion has a maximum continuous rated power(1) ≤ 1 kW and**
 - (7) powered three-wheel cycles complying with supplemental specific classification criteria (3), (4), (5) and are classified as being technically equivalent to powered two-wheel cycles.**
- (i) **L1Be vehicle (two-wheel moped)= according to Annex I**
- (1) two wheels and powered by a propulsion as listed under Article 4(3) and**
 - (2) engine capacity ≤ 50 cm³ if a PI engine forms part of the vehicle's propulsion configuration.**
 - (3) maximum design speed ≤ 25 km/h and**
 - (4) maximum continuous rated power(1) ≤ 4 kW.**

Amendment:

Article 4 (a) Category L1e vehicle (light two wheel or **three wheel** powered vehicle), sub-categorised into:

- (ii) **L1Ae vehicle (low performance vehicles)= according to Annex I**
- (1) two wheels or **three wheels** and powered by a propulsion as listed under Article 4(3) and**
 - (2) engine capacity ≤ 50 cm³ if a PI engine forms part of the vehicle's propulsion configuration.**
 - ~~**(3) primary aim to aid pedalling and vehicle equipped with an auxiliary propulsion and**~~
 - ~~**(4) maximum design speed ≤ 25 km/h and**~~
 - ~~**(5) output of auxiliary propulsion is progressively reduced and finally cut off as vehicle reaches a speed of 25 km/h and**~~
 - (6) the auxiliary propulsion has a maximum continuous rated power(1) ≤ 1 kW and**
 - (7) powered three-wheel cycles complying with supplemental specific classification criteria ~~(3)~~, (4), ~~(5)~~ and (6) are classified as being technically equivalent to powered two-wheel cycles.**
- (ii) **L1Be vehicle (two-wheel moped or **powered cycle**)= according to Annex I**
- (1) two wheels and powered by a propulsion as listed under Article 4(3) and**
 - (2) engine capacity ≤ 50 cm³ if a PI engine forms part of the vehicle's propulsion configuration and.**
 - (3) **auxiliary electric propulsion of which the output is cut off as the vehicle reaches a speed of 45 km/h, or sooner, if the cyclist stops pedaling and****
 - (4) maximum design speed ≤ 45 km/h and**
 - (5) maximum continuous rated power ≤ 4 kW.**

Justification:

- If following our amendment to Article 2(h), pedal assisted cycles of which the output is cut off as the vehicle reaches a speed of 25 km/h are excluded from the scope of this Regulation without specification of the power limit, then there is no further need to define category L1Ae in such a way that it does include the above-mentioned pedal assisted cycles.

Instead this category would cover the following types of vehicles:

- cycles equipped with an auxiliary motor that can propel the vehicle itself and an unladen mass of ≥ 25 kg
- a number of new electric vehicles that weigh more than 25 kg and cannot be classified under the current legislation, because that still pertains to traditional mopeds. ETRA's believes that an adapted category for these vehicles in combination with an appropriate type-approval will allow this market to achieve its full potential. It will facilitate the development of the products as well as putting them in the market.
- 25 km/h mopeds both with combustion engine or electric motor

In the current legislation, provisions for the above-mentioned vehicles are not clear. All above-mentioned electric vehicles are governed by a footnote to Annex I of Directive 2002/24/EC, which has not been implemented in a consistent way. This has resulted in a type-approval procedure, which is not optimally adapted to the concerned types of vehicles.

Category L1Ae as proposed in the above amendment will provide legal certainty, whereas improved efficiencies will bring about a reduction of type-approval costs. Hopefully, this clear categorisation will also incite the member states to adopt a much more harmonised approach of peripheral conditions for the use of the vehicles, i.e. helmet obligation, insurance and on which part of the road the vehicles are allowed.

- As for category L1Be, we assume that the maximum design speed of ≤ 25 km/h must be a mistake. We assume the maximum design speed for this category should read ≤ 45 km/h. Our amendment for this category is aimed at creating the possibility to include cycles with an electric motor that assists pedaling up to a speed of 45 km/h. A growing number of consumers show an interest in pedal assisted cycles with higher performances to replace the car for commuting, for utilitarian purposes (for instance pedaled taxis), for sportive use (for instance pedal assisted mountain bikes), etc. The companies and organisations supporting ETRA's position believe that a specific category for these vehicles in combination with an appropriate type-approval will allow this market to achieve its full potential. It will facilitate the development of the products as well as putting them in the market. This category will provide legal certainty, whereas improved efficiencies will bring about a reduction of type-approval costs.

Article 15 Economic operators shall, on request, identify the following to the market surveillance and approval authorities, for a period of 10 years:

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

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

Amendment:

Article 15 Economic operators shall, on request, identify the following to the market surveillance **and approval authorities**, for a period of 10 years:

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

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

For all systems, components, separate technical units, electrically-propelled vehicles in category L1Ae and for vehicles in category L1Be with auxiliary electric propulsion of which the output is cut off as the vehicle reaches a speed of 45 km/h, or sooner if the cyclist stops pedaling, this period shall be 5 years.

Justification:

As argued before, we believe that for reasons of clarity and legal certainty, the proposed Regulation should be as much in line with the New Legislative Framework as possible. Decision No 768/2008/EC of 9 July 2008 on a common framework for the marketing of products only imposes identification to the market surveillance authorities. We see no reason for deviating from this article.

Furthermore, the Decision prescribes the application of a period in proportion to the lifecycle of the product and the level of risk. A period of 10 years is by no means in proportion to the lifecycle of systems, components, technical units nor of light electric vehicles and pedal assisted cycles. For these vehicles, the lifespan is to a large extent determined by the battery. A period of 5 years is therefore far more realistic.

Article 16.1. L-category vehicles and systems, components and separate technical units intended for such vehicles shall comply with the requirements listed in Annex II to VIII.

Amendment:

Article 16.1. L-category vehicles and systems, components and separate technical units intended for such vehicles shall comply with the requirements listed in Annex II to VIII. **All electrically-propelled vehicles and vehicles with auxiliary electric propulsion shall be excluded from the requirements No I.2, I.4 and III.5 of Annex II. The separate Regulations will lay down specific requirements for all electrically-propelled vehicles in category L1Ae and for vehicles in category L1Be with auxiliary electric propulsion of which the output is cut off as the vehicle reaches a speed of 45 km/h, or sooner, if the cyclist stops pedaling. These specific requirements will apply in particular to the subjects No II.1, II.2, II.7, II.8, II.12, II.13, II.17, III.1, III.3, III.7, III.10, III.12 and III.13 in Annex II. All vehicles in category L1Ae and vehicles in category L1Be with auxiliary propulsion of which the output is cut off as the vehicle reaches a speed of 45 km/h, or sooner, if the cyclist stops pedaling shall be excluded from the requirements II.9, II.11, III.8 and III.9.**

Justification:

Requirements for components and characteristics marked with ** in Annex I to the currently applicable Directive 2002/24/EC do not apply to "electrically-propelled vehicles". This has been overlooked in the proposed Regulation. Consequently, electrically-propelled vehicles and vehicles with auxiliary electric propulsion risk to become subject to unnecessary requirements. This is the case for the requirements No I.2

(environmental test procedures related to exhaust emissions, evaporative emissions, greenhouse gas emissions and fuel consumption), I.4 (test procedures related to sound) and III.5 (fuel storage) in Annex II. Furthermore, we believe that electric cycles and light electric vehicles as defined in our above amendment to Article 4(a), require specific provisions for the following subjects in Annex II:

- II.1. audible warning devices
- II.2. braking, including anti-lock and combined brake systems
- II.7 identification of controls, tell-tales and indicators
- II.8 installation of lighting and light signalling devices, including automatic switching of lighting
- II.12 steer-ability, cornering properties and turn-ability
- II.13 tyres
- II.17 vehicle structure integrity
- III.1 anti-tampering measures
- III.3 devices to prevent unauthorised use
- III.7 masses and dimensions
- III.10 rear registration plate space
- III.12 stands
- III.13 statutory marking

Finally, electric cycles and light electric vehicles as defined in our above amendment to Article 4(a) need to be excluded from the following requirements in Annex II, either because these do not feature on the vehicles or because they do not contribute in an essential way to the functional safety of the vehicle:

- II.9 rearward visibility
- II.11 seating position (saddles and seats)
- III.8 on-board diagnostics
- III.9 passenger handholds and footrests, provided the vehicle is not equipped with a passenger seat

Article 18.1. '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 control devices, 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).

2. L-category vehicles shall be equipped with designated measures to prevent tampering of a vehicle's powertrain, to be laid down in a delegated act 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 designed vehicle speed as declared by the manufacturer of a vehicle upon type-approval, and/or**
- (b) to prevent damage to the environment.**

Amendment:

Article 18.1. '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 control devices, 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).

2. L-category vehicles, **except cycles equipped with auxiliary electric propulsion in category L1e**, shall be equipped with designated measures to prevent tampering of a vehicle's powertrain, to be laid down in a delegated act 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 designed vehicle speed as declared by the manufacturer of a vehicle upon type-approval, and/or**
- (b) to prevent damage to the environment.**

Justification:

Cycles equipped with an auxiliary electric motor need to be excluded from this article. The requirement is unnecessary for these vehicles and would create very complicated situations. Any replacement of for instance the chain or the gear system, which is solely related to the bicycle part of the vehicle and has no relationship with the motor and battery, would result in a vehicle that does no longer comply with the type-approval unless identical components are used.

Article 19.1 *Four years after the date referred to in the second subparagraph of Article 82, all new vehicles in subcategories L1Be, L3e, L5e, L6Ae and L7Ae shall be equipped with the first stage of an on-board diagnostic (OBD) system which monitors and reports on electric circuit continuity, shorted and open electric circuits and circuit rationality of the engine and vehicle management systems (OBD I).*

2. *Six years after the date referred to in the second subparagraph of Article 82, all new vehicles in subcategories L6Be and L7Be shall be equipped with OBD I.*

3. *Eight years after the date referred to in the second subparagraph of Article 82, all new vehicles shall be equipped with OBD I.*

4. *Following confirmation in a decision adopted by the Commission in accordance with Article 21(4), eight years after the date referred to in the second subparagraph of Article 82, all new vehicles in (sub-)categories L1Be, L3e, L5e, L6Ae and L7Ae shall in addition also be equipped with the second stage of an on-board diagnostic system (OBD II) which, in addition to OBD I, monitors not only complete failures but also deterioration of systems, components or separate technical units during vehicle life under the condition that its cost-effectiveness is proven in the environmental effect study referred to in article 21(4) and (5).*

Amendment:

Article 19.1 *Four years after the date referred to in the second subparagraph of Article 82, all new vehicles in subcategories L1Be, L3e, L5e, L6Ae and L7Ae shall be equipped with the first stage of an on-board diagnostic (OBD) system which monitors and reports on electric circuit continuity, shorted and open electric circuits and circuit rationality of the engine and vehicle management systems (OBD I). This requirement does not apply to electrically-propelled vehicles and vehicles with auxiliary electric propulsion in subcategory L1Be*

2. *Six years after the date referred to in the second subparagraph of Article 82, all new vehicles in subcategories L6Be and L7Be shall be equipped with OBD I.*

3. *Eight years after the date referred to in the second subparagraph of Article 82, all new vehicles, except subcategory L1Ae, electrically-propelled vehicles and vehicles with auxiliary electric propulsion in subcategory L1BE, shall be equipped with OBD I.*

4. *Following confirmation in a decision adopted by the Commission in accordance with Article 21(4), eight years after the date referred to in the second subparagraph of Article 82, all new vehicles in (sub-)categories L1Be, L3e, L5e, L6Ae and L7Ae shall in addition also be equipped with the second stage of an on-board diagnostic system (OBD II) which, in addition to OBD I, monitors not only complete failures but also deterioration of systems, components or separate technical units during vehicle life under the condition that its cost-effectiveness is proven in the environmental effect study referred to in article 21(4) and (5). This requirement does not apply to electrically-propelled vehicles and vehicles with auxiliary electric propulsion in subcategory L1Be*

Justification:

In Annex II vehicles in subcategory L1Ae are excluded from OBD. Contrary to that, Article 19.3 stipulates that “*eight years after the date referred to in the second subparagraph of Article 82, all new vehicles shall be equipped with OBD I*”. We believe that electric cycles and light electric vehicles as defined in our above amendment to Article 4(a) should be excluded from this requirement.

OBD is meant to identify malfunctioning, diagnostic trouble codes and environmental information. Such a complex system is unnecessary for electric cycles and light electric vehicles. It will not contribute to safety, whilst environmental concerns are not involved. The requirement will force manufacturers to develop systems that will have a considerable impact on the price of the vehicle. Today, there are 2 types of vehicles on the market: with software that helps among other thing to diagnose technical problems and without this software. Both the presence and absence of software are often used as marketing instruments. We believe that the free use of this instrument needs to be safeguarded. Compulsory OBD may well push some manufacturers out of the market, which in turn will result in less competition and higher prices. On the other hand, OBD on these vehicles will not significantly improve the safety and has no environmental benefits. In conclusion: OBD on these vehicles is not in the interest of the consumer.

Article 20.2 *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.*

3. *The requirements referred to in paragraphs 1 and 2 shall apply to vehicles, systems, components and separate technical units insofar as they are declared applicable to the relevant vehicle category by this Regulation.*

Comment:

As for “safe cornering on hard surfaced roads”, we assume that this requirement only applies to three- or four-wheel vehicles because it is not a requirement that can be met by two-wheel vehicles. This should be specified in Annex VIII.

Article 21.6 Fully electric-propelled vehicles and/or vehicles propelled only with pre-compressed air are excluded from the environmental requirements listed in Annex V, test type I to VIII. These vehicles shall comply with the functional requirements of OBD, as laid down in a delegated act in order to repair these vehicles efficiently in case of malfunction.

Amendment:

Article 21.6 Fully electric-propelled vehicles, vehicles with auxiliary electric propulsion and/or vehicles propelled only with pre-compressed air are excluded from the environmental requirements listed in Annex V, test type I to IX, Annex VI and VII. These vehicles, except in category L1e, shall comply with the functional requirements of OBD, as laid down in a delegated act in order to repair these vehicles efficiently in case of malfunction.

Justification:

We propose to add “vehicles with auxiliary electric propulsion” for clarity since electrically assisted cycles are not fully electric-propelled vehicles. To propel these vehicles muscle power is required.

We believe that all electric vehicles should also be excluded from the sound level test, therefore the article needs to specify “test type I to IX “ instead of VIII.

As argued for our amendment to Article 19.3, we believe that OBD for electric vehicles in category L1e is not in the interest of the consumer. Therefore we propose the relevant exclusion.

Article 29.1 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. An 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 separate acts listed in Annex II.

Comment:

Type-approval for electric cycle components may well cause problems because identical components are used on electrically assisted cycles exempted from type-approval under Article 2(h) as well as for conventional bicycles. This will create confusion for the after-market. The distributor will be confronted with the question in which cases he is allowed to sell/use non-type approved components and in which cases he should sell/use type-approved components. Also, it will be difficult to explain to the consumer why two different prices apply to identical products. This is why our amendments to article 16.1 are aimed at limiting type-approval of systems, components or separate technical units to an absolute minimum and to only those systems, components or separate technical units which have a real and demonstrable impact on functional safety. We have also argued this point in our comment to consideration (8).

Article 40.1 The manufacturer may apply for a 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 sale, registration or entry into service of vehicles of the approved type on the Union market in a given year.

For the type-approval of small series the approval authority may, if it has reasonable grounds to do so, waive one or more of the provisions of one or more of the acts listed in Annex II, provided that it specifies alternative requirements.

Comment:

The proposed limits for cycles with an electric motor and light electric vehicles are low to the extent that they will prove to be unusable. The small series measure could be a solution for instance for manufacturers who are developing innovative and/or unusual types of vehicles or trying out new technologies, innovation being a vital element in this industry. A limit of 20 vehicles a year for the whole of the EU makes it impossible for manufacturers to develop a series that will provide a solid basis for final commercial decisions. With 20 vehicles, the manufacturer is not even in a position to test 1 vehicle in every member state. In member states where electromobility is already well developed, it may even be necessary to test more than 1 vehicle.

Furthermore one has to take into account that the cost of type-approval, even in a simplified version, weighs relatively heavier on light electric vehicles than on, for instance combustion engine mopeds and motorcycles. We do not understand why a difference is made for the categories, assigning a low limit to one and a higher to another one. Therefore, we suggest to having one and the same limit of 100 for all categories.

Article 41.4 Application for individual approval shall cover a maximum of 5 vehicles of the same type.

Amendment:

Deletion of the article

Justification:

The reasons for granting an individual approval should be based on the objective procedure set out in the proposed Regulation, not on whether the approval is within a numerical limit which has been determined in a random way. Such a limit would be detrimental to SMEs (especially nascent manufacturers and producers of hand-built specialist vehicles) for whom type-approval is impractical. Therefore, we propose to delete this article.

Article 60.1 Manufacturers shall provide unrestricted access to vehicle repair and maintenance information to independent operators through website using a standardisation format in a readily accessible and prompt manner. In particular, this access shall be granted in manner which is non-discriminatory compared to the access granted to authorised dealers and repairers.

Article 62.1 Manufacturers may charge reasonable and proportionate fees for access to vehicle repair and maintenance information covered by this Regulation. A fee shall not be considered reasonable or proportionate if it discourages access by failing to take into account the extent to which the independent operator uses the information.

2.Manufacturers shall make available vehicle repair and maintenance information on a daily, monthly, and yearly basis, whereby fees for access to such information may vary in accordance with the respective periods of time for which access is granted.

Amendment:

Article 60.1 Manufacturers shall provide unrestricted access to vehicle repair and maintenance information to independent operators through website using a standardisation format in a readily accessible and prompt manner. In particular, this access shall be granted in **the same manner** to both **which is non-discriminatory compared to the access granted to** authorised dealers and repairers **and to independent operators.** **Vehicles must be supplied with all information, special equipment and accessories essential to enable them to be adjusted, maintained and used safely.**

Article 62.1 Deleted

Justification:

In 2007 CEN had approved lift standards called PESSRAL (EN 81-1 and 2) allowing lift manufacturers to place their products on the market without supplying the necessary information and equipment needed to adjust, maintain and repair them. This would have allowed multinationals to sell lifts equipped with special electronic safety devices (PESSRAL = programmable electronic systems in safety-related applications) and get clients to sign exclusive maintenance contracts, thus forcing independent SME maintainers out of the market. In a letter to CEN (see Letter from EC to Chairman of TC10, Doc.LWG.2008.12), the European Commission supported the principle that, for reasons of safety, the software necessary for the maintenance of a product should be supplied with the product in accordance with the Machinery Directive (2006/42/EC). Annex I, section 1.1.2, paragraph e of this Directive states that "*Machinery must be supplied with all the special equipment and accessories essential to enable it to be adjusted, maintained and used safely*". Electrically assisted cycles and light electric vehicles that are excluded from the proposed Regulation, such as pedal assisted bicycles with a maximum continuous rated power of 0.25 kW and assistance up to 25 km/h, do fall under the Machinery Directive. If article 62 of the proposed Regulation is not aligned with the Machinery Directive, this will lead to confusion in the market. Non-type approved vehicles must be supplied with the maintenance equipment, while the equipment needed to safely maintain type-approved vehicles can be subject to contractual conditions. More importantly however, not supplying the equipment (incl. software) necessary for the maintenance endangers the safety of the user. Therefore, we believe the access to vehicle repair and maintenance information should be open to all operators in the same way. This requires deletion of Article 62.1. Furthermore, the proposed Regulation should be aligned with the Machinery Directive. For that purpose, we propose to add a second paragraph to Article 60.1.
