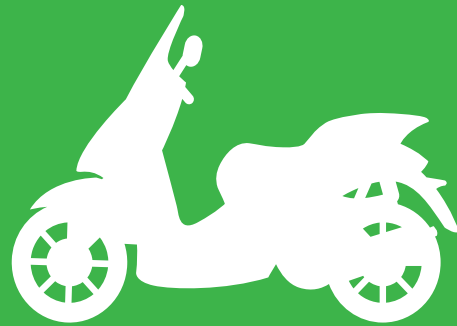


**Response to DG Enterprise**

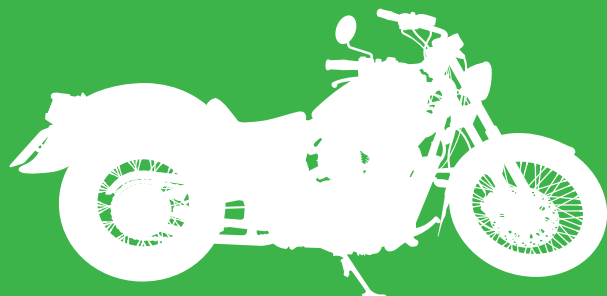
**Regarding Framework  
Regulations for L vehicles**

**Right To Ride Ltd  
Northern Ireland**



**26th January 2010**

**Public Document**



**Trevor Baird  
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**Emissions - Anti Tampering**

## Foreword

From Brussels, specifically the European Commission, proposals have been put forward to regulate emissions and the safety of motorcycles.

The proposal would have three objectives: simplification of the legislation (Better Regulation), new emission standards, and new safety measures. The simplification pillar consists of replacing the framework Directive and its separate Directives by a single framework Regulation. The proposal would repeal 14 Directives. At the same time, new emission and safety measures would be introduced in order to keep the legislation up to date with the latest technology developments.

Therefore, it is envisaged to introduce:

- a) A new package of measures on emissions including durability, measurement of CO<sub>2</sub> emissions, evaporative emissions, as well as new emission limits for motorcycles, mopeds and quadricycles.
- b) New safety measures to reduce road casualties, such as advanced braking systems, anti-tampering measures and specific requirements on quads.

Right to Ride contacted the chairman of the Motorcycle Working Group (MCWG) at DG Enterprise in order to ensure that any outcome would not negatively affect Northern Ireland motorcyclists through changes in legislation as a result of this framework proposal and the subsequent Impact Assessment required by the EU Commission. All the information about this working group can be found on their website link:

[http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg\\_motorcycle/meeting\\_december&v m=detailed&sb=Title](http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg_motorcycle/meeting_december&v m=detailed&sb=Title)

On the 15<sup>th</sup> January a representative of DG Enterprise replied to Right To Ride, requesting our views and recommendations regarding the proposed changes in regulations which include Road worthiness testing (RWT) in all European Union countries and On Board Diagnostics (OBD) to evaluate emissions through RWT; Anti-tampering measures to increase safety and ensure that emissions are within the required limits.

Our response aims to provide DG Enterprise with an analysis and recommendations<sup>2</sup> for the benefit of Northern Ireland motorcyclists, based on the discussions and proposals which have been put forward in the MCWG by industry, governments, retail associations, motorcycle user organisations and other associations etc.

Trevor Baird  
Elaine Hardy  
26<sup>th</sup> January, 2010

*With thanks to:*

Morten Hansen, General Secretary, The Norwegian Motorcycle Union (NMCU), for his suggestions and comments.

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<sup>2</sup> NB: Trevor Baird was MAG UK's regional representative for Northern Ireland between 1997 and 2002; General Secretary of MAG UK between 2002 and 2008. In 2008, as Technical Officer, he represented the International Coalition of motorcyclists (USA, Canada, Europe) at the UNECE in Geneva and represented FEMA at the MCWG. He presented the first response from FEMA on the framework regulation. See link [http://www.fema-online.eu/uploads/documents/vehicle%20aspects/TRLconsultation\\_FEMAanswer.pdf](http://www.fema-online.eu/uploads/documents/vehicle%20aspects/TRLconsultation_FEMAanswer.pdf)

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Right To Ride Ltd is a not for profit company based in Northern Ireland.

This company’s object is to carry on activities, in particular (without limitation) to promote awareness and understanding of training, environmental road safety and security issues relating to the use of those vehicles classed in law as motorcycles, scooters, mopeds, motorcycle combinations and tricycles and to research and investigate solutions to these topics.

## Introduction

Right To Ride has been asked to reply to a request by DG Enterprise (Automotive Industry Unit) to the proposals for changes to the framework regulations in relation to L category vehicles. Specifically:

*“What are Right to Ride’s recommendations to guarantee that after a modification to the type approved vehicle by the end-user the type approval emission limits continue to be respected for the remaining vehicle life after the repair / modification ?”*

*“We would be grateful if Right to Ride could provide us with pragmatic, constructive recommendations to resolve this concern, without the need to tighten the requirements on anti-tampering for all L-category vehicles”.*

We will not comment on ATV vehicles as these fall outside our area of expertise however, we will comment on other proposals including ABS brakes, power limitations and emissions testing as well as anti-tampering in order to clarify our position.

While we intend to focus on PTWs, we would like to include within this definition, especially in relation to modifications and emissions - trikes or three wheeled vehicles<sup>3</sup>.

Throughout the document, we have raised a number of questions in relation to the various presentations and proposals. The reason for doing so is to understand fully the various positions and potential implications for the consumer and the future of motorcycling in general.

## 1. Background

We would like to draw your attention to the CARS 21 report (2006). In its report on a Competitive Regulatory Framework for the European Automotive Industry, the CARS 21 High Level Group made recommendations in relation to better regulation in the Automotive Industry<sup>i</sup> (pages 18-19 – see end note ii).

We have identified what we consider to be the most salient points which we would like to refer to the proposals for changes to the framework regulations for L category vehicles<sup>ii</sup>.

### i) Principles concerning the quality of legislation:

- *Generally, the EU should refrain from adopting technical legislation directly affecting the vehicle construction and functioning outside the type approval framework and at the same time consistency of type approval legislations should be improved.*
- *All automotive legislation should be performance-oriented, technology-neutral, and over-prescriptive regulations should be avoided.*
- *The principle that regulations should only fix objectives in terms of measurable performances, not solutions, should be strictly respected. If there are exceptions, the criteria to accept them should be given.*

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<sup>3</sup> These 3 wheeled vehicles can be either produced by a recognised manufacturer e.g. the MP3 by Piaggio or the Spyder Roadster which is on sale in Great Britain and produced by the Canadian company BRP Inc, (these vehicles have two wheels at the front) as well as small manufacturers producing customised trikes (typically with two wheels at the rear) e.g. Boom Trikes (UK) Ltd (<http://www.boom-trikes.co.uk>) was established in 1999 and has sold over 700 Trikes in the UK to date. All BOOM Classic trikes are car based (VW + Ford), Fighter trikes (Peugeot) and Fun trikes (Piaggio) and are supplied with new fuel-injected engines.

### iii) Principles concerning impact assessments:

- Based on the Commission Impact Assessment Guidelines of 15 June 2005 , the following are the impact assessment elements most relevant to the automotive sector:
  - *a cost-effectiveness analysis of the various policy options proposed to meet the policy objectives. Each measure should be assessed with respect to:*
    - *its effective capacity to solve a problem of concern;*
    - *its feasibility (including costs, lead-time);*
    - *its implications with regard to other policy areas.*

We fully support the recommendations of the CARS 21 High level Group and believe that the recommendations for better regulations (that are listed above) must be the foundation of any changes to L category vehicle legislation.

## 2. Framework Regulations, Safety and Emissions

The objectives to simplify the framework regulations include a series of factors which fall under the headings of 1) safety and 2) environment. While we accept that there are many areas of crossover between safety and environment, for the purpose of clarity, we believe that it is important to separate these two factors, although inevitably, there will be some repetition and/or crossover.

### 2.1 Safety

#### 2.1.1 ABS Brakes

Rather than re-invent the wheel, we fully agree with the position that ACEM has put forward, which we believe has provided more than sufficient documentation and evidence for the case that there should be no change to the current situation, that ABS or linked front and rear applications (Combined Braking Systems) or similar systems should **not** be made mandatory.

#### 2.1.2 Power Limitation

With regards to 74Kw Power limitation (100bhp) for motorcycles, the results of the 1997 study<sup>4</sup> completed by the TNO, carried out on behalf of the European Commission are still binding. The study identified that, *“there is no scientific evidence that engine size is a major factor in motorcycle accidents; engine size does not emerge as a separate risk factor”*.

The study indicates that *“For most scenarios where the engine power has been or could be a factor there is no evidence that a restriction in engine power, to e.g. 74 kW, would have avoided the occurrence of the accident.”* It also identifies that, *“A risk exists that 74 kW motorcycles will be constructed with extreme low weights introducing unnecessary stability or failure risks.”*

The study does not just concentrate on the BHP/kW issue and the relation to accidents it reports that, *“The riders' age, experience, annual mileage and attitude, but also the situation at the accident site, the weather, etc., are some of the many other factors which influence the occurrence of motorcycle accidents”*.

France is the only EU Member State to have opted to limit L3 vehicles to 74 kW. However, an official report published recently considers withdrawing this ban *“because it has not been seen as making a significant impact on motorcycle road safety”*. (We also understand that France is now reviewing this ban).

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<sup>4</sup> Motorcycle power 74kW study Phase B Report prepared by TNO for European Commission DG 11, Industry. Report No. 97.OR.VD.056.1//PR

This report<sup>5</sup> questioned the usefulness of the law which restricts motorcycles to the maximum of 100bhp. This feasibility study of the technical inspection of motorcycles recognizes the lack of benefits in terms of safety of the 100bhp limitation to the power of motorcycles.

Another study from the Transport Research Laboratory in the UK (TRL) produced a report in 2004 entitled 'The Accident Risk of Motorcyclists' which concluded that there was no link between engine size and accident risk<sup>6</sup>.

Sports bikes that tend to attract high risk takers do not necessarily have the most powerful engines or the highest power-to-weight ratio: they can be as low as 125cc. Therefore, restrictive legislation based on engine capacity, power output or high power-to weight ratio would not solve the problem at all. The problem is attitude, largely encouraged by the marketing strategies of motorcycle manufacturers.

### **2.1.2.1 Norwegian Surveys - 74 KW Power Limit for Motorcycles**

(SSB) Statistics Norway on behalf of the MC-Council<sup>7</sup> conducted an analysis of motorcycle accidents in 1999. Similarly analysis was also made of accidents in 1993, 1995 and 1997<sup>8</sup>.

SSB concluded that the results for 1999 are at least as clear as for previous years; some of the models with a "fierce image" are almost three times more often involved in accidents than other models with a "kinder image" this despite the fact that motorcycles with a "kinder image" in several cases have significantly more power.

The report comments that the most striking comparison is with the two models from the manufacturer Kawasaki. According to the report, "both model ZX-7R and model ZZ-R 1100 must be described as powerful Super Sport motorcycles". However, the authors argue that, the smaller ZX-7R (750cc/122hk) has an accident involvement of 46.7 per 1000, while the ZZ-R 1100 (1100cc/147hk) only has an accident involvement of 4.5 per 1000 which illustrates the fact that the motorcycle community understands and buys ZX-7R as a "hasty" street racer while ZZ-R 1100 is seen and purchased as a "good" "mild" image touring bike."

The report continues, by highlighting that technical limitations would not resolve the problem of accidents because there is no connection with motorcycle characteristics such as volume, power or a correlation between weight and power. Finally, the report points out that Supersport motorcycles have a number of safety characteristics such as brakes to support the rider, but ultimately the motorcycle is not the problem, but "the setting, competence and decisions of the riders are".

### **2.1.2.2. Swedish Study - 74 KW Power Limit for Motorcycles**

In 2003 the Institute of Transport Economics, published the "Motorcycle safety - a literature review and meta-analysis"<sup>9</sup> The following headings contained in the summary refer to power and risk of accident.

### **2.1.2.3. Measures Aimed at the Motorcycle**

The studies that were analysed, found no link between power and risk of accidents. In this context, it was concluded that there was no guarantee that banning the largest heavy motorcycle or regulating

<sup>5</sup> <http://www.ladocumentationfrancaise.fr/catalogue/9782110069795/>

<sup>6</sup> The authors were B Sexton, C Baughan, M Elliott, and G Maycock.

<sup>7</sup> The Council consists of representatives from the Motorcycle Wholesaler's Association (MGF), Safe Traffic, Police, Vegdirektoratet and NMCU (Norsk Motorcykkel Union)

<sup>8</sup> (In Norwegian only) [http://arkiv.nmcu.org/publ/ssb\\_1995/index.html](http://arkiv.nmcu.org/publ/ssb_1995/index.html); [http://arkiv.nmcu.org/publ/ssb\\_1997/index.html](http://arkiv.nmcu.org/publ/ssb_1997/index.html);

[http://arkiv.nmcu.org/publ/ssb\\_1999/index.html](http://arkiv.nmcu.org/publ/ssb_1999/index.html)

<sup>9</sup> [http://www.vv.se/filer/27656/2\\_motorcykelsakerhet\\_en\\_litteraturstudie\\_och\\_meta\\_analys.pdf](http://www.vv.se/filer/27656/2_motorcykelsakerhet_en_litteraturstudie_och_meta_analys.pdf)

the use of these more stringently would be effective. The evidence suggests that the driver and driver behaviour is the main cause of accidents, not the engine size of the motorcycle.

#### **2.1.2.4 Countermeasures Aimed at the Rider**

Combining power restriction of motorcycles with age limitations (graduated licensing) does not seem to have any effect on safety.

Although the number of accidents with powerful motorcycles has decreased after the introduction of power restrictions, this positive effect is outnumbered by an increase in accidents with light motorcycles.

#### **2.1.2.5 Countermeasures Aimed at the Motorcycle**

There is no evidence of a relationship between accident risk and motorcycle engine size/effect. On this basis, it is concluded that banning or restricting the use of the most powerful motorcycles will probably not make any effect upon safety. The “image” of the motorcycle (especially the “super sport image”) seems to be of more relevance concerning accident involvement.

In the Swedish review, there is reference to the regulation of engine power. The review highlights that there has been a series of studies on the relationship between the volume of motor scooters and motorcycles and the risk of accidents with these vehicles<sup>10</sup>.

Results from these studies vary quite a lot and demonstrate that the well-controlled studies found a significantly weaker link between the engine and the risk of accidents than in poorly controlled studies. Well controlled studies meant surveys that take into account the largest number possible of the other factors, in addition to the engine, affect the risk of accidents.

According to the review, the best-controlled study was Ingebrigtsen (1990), because this study controlled for gender, age, experience, motorcycle make, model, annual mileage and a target of risk appetite and linked to these factors was the difference between the engine volume of heavy motorcycles and the relative risk of accidents.

The review concluded that there are no guaranteed benefits by banning the largest heavy motorcycles or by regulating the use of these more stringently.

## **2.2 Road Worthiness testing – periodic inspections and OBD**

In Northern Ireland, where we are based, Road Worthiness Testing is carried out annually (three years after the vehicle has been registered for the first time). This test also known as MOT testing, is carried out by a government agency at designated testing sites. The annual cost for motorcycles to have an MOT in Northern Ireland is £22, this is a fixed cost.

In Great Britain (England, Scotland and Wales) there is a completely different system in which MOTs are carried out by the private sector and providing the company has the required approval, this test can be carried out by anybody, including a one-man operation or a nationwide dealership – this aims to improve competition and reduce the cost of the MOT which starts at £29.20 (motorcycle only) up to £37.20 (motorcycle with sidecar or tricycle).

These are the recommended government prices, but the actual cost of an MOT in Great Britain can vary considerably.

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<sup>10</sup> Kraus, Riggins and Franti 1975 (USA); Nordic Traficksäkerhetsråd 1975 (Sweden); Hurt, Ouellet and Thom 1981 (USA); Lekander 1983 (Sweden); Källberg 1986 (Finland); Carstensen 1987 (Denmark); Koch 1987 (Germany); Broughton 1988 (UK); Ingebrigtsen 1989 (Norway); Mayhew and Simpson 1989 (Canada); Ingebrigtsen 1990 (Norway); Taylor and Lockwood 1990 (UK); Rogerson, Lambert and Allan 1992 (Australia); Hayworth, Smitj, Brum and Pronk 1997 (Australia); Nilsson 2002 (Sweden)

Road Worthiness testing is also carried out in many European countries. While we understand that there are recommendations to extend Road Worthiness testing throughout all European countries, this testing already exists in Northern Ireland, therefore we do not intend to debate its value IN TERMS OF SAFETY, however we will return to this later in the document with regards to emissions testing.

### **2.3 On Board Diagnostics (OBD) International Federation of Automotive Aftermarket Distributors - Presentation<sup>11</sup>**

The Federation of Aftermarket Distributors gave a presentation at the MCWG regarding On Board Diagnostics (OBD). We wish to comment on the FIGIEFA presentation at the MCWG meeting of December 14<sup>th</sup> 2009.

The 3<sup>rd</sup> slide of the FIGIEFA presentation indicates that there are more or less 19 million motorcycles in use. However, ACEM figures for 2006 indicate that in the 27 EU countries there are c.20.2 million motorcycles AND c.13 million mopeds. Effectively there are 33.2 million PTWs in circulation in Europe. As the Framework regulations include both motorcycles and mopeds, it is crucial to provide data on the actual size of the PTW market.

The 6<sup>th</sup> slide indicates that the vast majority of models dated after 2002 include OBD and that “as of 2012, every repair job will require adequate OBD tools and full access to RMI” – Repair and Maintenance Information.

It is not clear whether FIGIEFA is referring just to motorcycles or are they including mopeds in the first part of the statement that the vast majority of models dated after 2002 include OBD. It would appear that the presentation only refers to motorcycles.

**Question: On what basis is FIGIEFA making the statement that every repair job will require adequate OBD tools? Is FIGIEFA referring to the power train or all parts of the PTW?**

It would be helpful if FIGIEFA provided concrete data to support their claims.

**Question: Could FIGIEFA please be more explicit about the vast majority of models dated after 2002?**

The reason is that we understand that OBD could only be used on motorcycles with electronic fuel injection (EFI) systems, but many motorcycles still utilize carbureted engines, (although we recognise that all current high-performance designs have switched to EFI, and even motocross bikes<sup>12</sup> are now starting to use EFI).

There is no doubt that manufacturers of PTWs (motorcycles and mopeds) will increasingly use EFI systems as pressure from governments mounts to require this type of technology, and because EFI improves quality and fuel efficiency, however at this point in time, we must query the claim that the “vast majority of models dated after 2002 include OBD”.

We do agree with FIGIEFA that information regarding both OBD and RMI should be made available to ALL repairers. Although we would include DIY repairers, because we believe that it is fundamental for the future of motorcycling for owners to be able to carry out their own repairs, if they feel so inclined.

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<sup>11</sup> [http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg\\_motorcycle/meeting\\_december/figiefa\\_20091214pdf/ EN\\_1.0\\_&a=d](http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg_motorcycle/meeting_december/figiefa_20091214pdf/ EN_1.0_&a=d)

<sup>12</sup> <http://www.suzuki-gb.co.uk/bike/rmz250i0/?gclid=CJGUu7eCuZ8CFcZe4wodz03QzQ>



This is partly because of cost and also because of the vast number of motorcyclists that have an emotional identification with their motorcycles which includes the ability to carry out modifications (even to the powertrain) and simple servicing, especially at the end of the OEM's warranty.

## 2.4 Anti-tampering

With regards to anti-tampering, we believe that there must be a distinction between illegal tampering and legal modifications. The manufacturers have requested to expand anti-tampering measures from anti-tampering of mopeds to include various components and have also included 125cc as well as A2 driving licence category (35Kw = 46.6 bhp - which can have any engine size) aka category C (page 9 of amendment to directive - ACEM). We will comment on the TUV document<sup>13</sup> which appears to be at the heart of the discussion on anti-tampering measures.

In reference to your definition of the power train, *"includes the engine, transmission and if applicable the cardan (drive) shaft / belt drive / chain drive, differentials, the final drive, and the driven wheel tyre (radius)"*.

**Question: Using the example of a spark plug, if the manufacturers fit as standard a specific make of spark plug, which the owner wishes to change to another make (which may be advertised as being more efficient), would there be a regulation against this?**

**Question: Also for example, tyres, if a motorcyclist finds a brand that is not used by the OEM, does that imply that the motorcycle is not as safe and if so why?**

Even changing exhaust systems, which brings us into the discussion about emissions, there are type approved exhaust systems available that are not OEM products, but are legal.

**Question: If anti-tampering measures are introduced for the whole powertrain, does that mean that motorcyclists cannot (even if carried out by a mechanic) make modifications by using type approved exhaust systems?**

The reason we ask these questions is because of your comments *"A third aspect in this discussion is under lighted, which is the impact of modifications to the power train of the L-category vehicle that influence its pollutant emission performance"*.

**However**, in the "COMMISSION DIRECTIVE 2006/120/EC of 27 November 2006 correcting and amending Directive 2005/30/EC amending, for the purposes of their adaptation to technical progress, Directives 97/24/EC and 2002/24/EC of the European Parliament and of the Council, relating to the type-approval of two or three-wheel motor vehicles.

### Article 2

The following paragraph 3 is added to Article 3 of Directive 2005/30/EC:

*'3. With effect from 1 January 2009, Member States shall refuse the sale or installation on a vehicle of replacement catalytic converters which are not of a type in respect of which a type-approval has been granted in compliance with Directive 97/24/EC, as amended by this Directive.'*

So there is already a regulation in place with regards to catalytic converters, which should eliminate problems of sales of illegal catalytic converters".

In that context we feel that there are two separate factors – the first is that OBD require EFI to function and in that respect we believe that this will be an enormous benefit to motorcycling in terms of quality and efficiency and ultimately drive down costs. The second relates to mandatory Road Worthiness Testing for emissions and OBD.

<sup>13</sup> [http://ec.europa.eu/enterprise/sectors/automotive/files/projects/report\\_anti\\_tampering\\_devices\\_en.pdf](http://ec.europa.eu/enterprise/sectors/automotive/files/projects/report_anti_tampering_devices_en.pdf)

### 2.4.1 TUV Study 2003<sup>14</sup>

The 272 page TUV document “Study on Anti Tampering devices relating to Two or Three Wheeled Motor Vehicles” (2003) relates to the directive 2002/24/EC dated March 18<sup>th</sup>, 2002.

The authors of the TUV report produced an estimation of the magnitude of the manipulations can be found in statistics and estimations of some (German) inspection services in the member states, in which these vehicles are subject to periodic technical inspection. The percentage of faults found there is about 5% (....) (page 79 of 81 of summary).

The data are identified in Appendix A11 (page 1 of statistics concerning faults found at Technical Inspections) and indicate that in 2002, 167,406 PTWs were tested and 8,315 (5%) were identified as having the following faults:

**Table One Faults found at Technical Inspections (2002)**

%	623	624	801	802	803	804	805	806	807	808	809	810
4.969	0.487	1.86	0.652	0.824	0.562	0.011	0.035	0.031	0.138	0.357	0.005	0.007

Fault code:

- |   |                                    |
|---|------------------------------------|
| 623 engine/drive train: clutch/gearbox            | 805 emissions                      |
| 624 engine/drive train: driveshaft/ chain, sleeve | 806 noise suppression              |
| 801 exhaust system: faults/fixing                 | 807 fuel/gas/pipe/tank             |
| 802 exhaust system: wrong model                   | 808 engine/drive train oil leakage |
| 803 noise emissions                               | 809 engine coolant leakage         |
| 804 smoke emissions                               | 810 steering/brake/suspension      |

Of these, we can see that five faults are specific to emissions (624; 801; 802; 803 and 805). Thus we can determine that 3.9% of the vehicles tested were identified as faulty in this respect. However the only evidence of tampering (that we can find) relates to one fault (802 – exhaust system – wrong model) which identifies 0.8% of the total.

Indeed, on page 50/81 (effective contribution) the authors actually admit that

*“the percentage of faults as mentioned above was about 5% in 2001/2002. Highest percentages are in code 624 (engine/drive train: drive shaft/chain, cover – 1.9%) and 801/802 exhaust system had a percentage of faults of even 2%. The code 803 noise emissions had a fault-rate of 0.6%. The environmentally relevant code 808 (engine/drive train, loss of oil had a fault rate of 0.4% of the inspected vehicles.*

*The percentage of faults shown here does not necessarily mean a manipulation of the vehicle by the driver. Only the fault code 802 is directly connected to manipulation. The percentage of manipulated vehicles in the faulty vehicles is about 50%, the other 50% are caused by technical defects and wear”.*

**Question: It appears that the authors are stating that effectively the percentage of manipulated vehicles refers only to fault code 802 (0.824%) and that the evidence of manipulation for this fault is 50%, is this correct?**

If we extrapolate these findings throughout Europe, we can suggest that 96.9% of PTWs do not have emissions problems beyond legal requirements, however if we use the criteria of the TUV study as a model for anti-tampering, then it appears that 99.2% of the vehicles examined do not present any

<sup>14</sup> [http://ec.europa.eu/enterprise/sectors/automotive/files/projects/report\\_anti\\_tampering\\_devices\\_en.pdf](http://ec.europa.eu/enterprise/sectors/automotive/files/projects/report_anti_tampering_devices_en.pdf)

evidence of tampering. (This is also mentioned in the TRL (2009) report<sup>15</sup> in which the authors state “not enough information to determine effect (of tampering) although potentially negative” (repeal of 97/24/EC).

As mentioned above, the authors have provided evidence of manipulation in one fault which is 0.82% of overall faults and it would appear that 50% of the faults are due to technical defects and wear, which would therefore suggest that the “problem” is 0.4% of all faults examined. The overall parc of PTWs in Europe is c.33.2 million, so as the basis for wide spread changes in legislation to eliminate a somewhat miniscule problem, the solutions proposed by ACEM would be completely disproportionate and unnecessary.

It is our opinion that it should be the responsibility of law enforcement agencies to provide evidence that illegal tampering may or may not occur after the purchase of the vehicle. Furthermore, as indicated in the CARS 21 report “*The principle that regulations should only fix objectives in terms of measurable performances, not solutions, should be strictly respected*”.

If a vehicle is tampered with, then the manufacturer has every right to void the warranty. Furthermore we know that in the case of insurers, if a vehicle has been illegally tampered with, the insurance policy is no longer valid.

Finally as the TUV report indicated, it is possible to exchange an illegal exhaust back to the original (legal) exhaust prior to the RW (Road Worthiness) test and then revert back to the illegal exhaust afterwards, so there is no guarantee that RW testing will resolve the (so called) problem.

**Question: If motorcyclists can change the exhaust system when they have RW testing (ref. TUV report), why do you believe that the proposed anti-tampering measures would make any difference?**

#### **2.4.2 U.S. example**

The debates on anti-tampering measures in Europe are difficult to comprehend, considering that in the United States of America, the Environment Protection Agency (EPA) has set out guidelines regarding installation requirements<sup>16</sup>, which motorcycle manufacturers already have to follow. For example, provisions of installation include not exceeding the engine manufacturer's specifications for vehicle weight, gearing, induction, and exhaust back pressure.

A permanent label must also be affixed to the bike's frame, which states the following phrase: "See engine owner's manual for information regarding emissions warranty, maintenance instructions, and tampering prohibitions."

In other words, if there is to be no tampering, a label is required to spell it out. Also, this information must be passed on to prospective customers.

In the U.S. it is explicitly illegal to modify a motorcycle in a way that makes it become non-compliant with EPA emissions requirements, and it has been like that since 1980 under the Clean Air Act, section 203(a). It is illegal to tamper with the motorcycle in any way that makes it non-compliant with emissions standards.

There are exceptions which include a hardship provision for small-volume manufacturers (SVM) and special exemptions altogether for "Custom Motorcycles" and "Motorcycle Kits."<sup>17</sup>

<sup>15</sup> [http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg\\_motorcycle/meeting\\_june\\_2009/mcwg\\_trl\\_290609/ EN\\_1.0 &a=d](http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg_motorcycle/meeting_june_2009/mcwg_trl_290609/ EN_1.0 &a=d)

<sup>16</sup> <http://www.epa.gov/otaq/regs/roadbike/1-hmc-regs-pres.pdf>

<sup>17</sup> <http://www.amadirectlink.com/news/2006/EPA.asp>

### 2.4.3 Anti-tampering and modifications

If we make the assumption that stringent anti tampering measures are put in place, certain users and or suppliers of equipment will find a way to circumvent these measures without regards to the consequence of enforcement nor with any consideration that the tampered motorcycle is possibly not compliant to emission levels.

Giving the example of modified Supersport bikes, we can presume that users will take their modified motorcycle to be tested on a dynamometer or rolling road after modification, or to have it modified. The purpose of this is to make sure that the modified motorcycle is running correctly with the modified parts fitted, so that the engine or power train is not subsequently damaged and the motorcycle power delivery remains safe and stable for on road use, e.g. flat spots or aggressive power curves.

This testing can include calibration to fuelling through the original electronic equipment, or after market replacement or added electronic equipment. This may also include changes to the final drive ratio of the motorcycle e.g. different sized sprockets, especially on chain driven motorcycles. Or for carburetted motorcycles, changes to jetting sizes as well as free flowing air filters.

With regards to other motorcycle types, it could be argued that the users' reasoning for modifications is to improve the torque, drivability or "grunt" of their motorcycle – but not for top end speed (as could perhaps be said for Supersports machines which would be more a safety issue than emissions issues, regarding safety this is on Supersports motorcycles already capable of high top end speeds as standard from OEMs).

Thus our conclusion of this assumption is that anti tampering measures will have no effect and in fact any tightening regarding anti-tampering measures for all L-category vehicles would be negated.

This would also in our opinion, just retain a status quo of concerns regarding anti tampering or illegal modifications, in other words, if somebody wants to tamper with their PTW, they'll do it anyway.

Using the example of our assumption above, if a measure or limits was available, this would mean that if users (whether self modifying or relying on professional expertise), had these parameters to work with then the optimum balance between fuel consumption, engine performance (power and torque) and pollutant emission performance can be achieved for the modified motorcycle. Especially in respect as the example of whether any one, two or all of these "three pillars" of optimum balance are modified. If one is modified then the other two will not be negatively compromised and the careful obtained optimum can still be achieved.

There are also projects which are in progress or have been developed with the aim of providing commercial products that involve modifications to PTWs (which presumably, the industry considers to be positive tampering) and this includes modifications to the power train, for example the ISA project<sup>18</sup> which is an adaption to actively reduce the speed of the PTW. This project, developed by the University of Leeds in collaboration with MIRA Ltd (UK) was funded by the Transport Technology and Standards Division Department for Transport.

An FP7 project (SAFERIDER) funded by the EU Commission aims to modify the PTW using four Advanced Rider Assistance Systems, (ARAS): Speed alert functionality; Curve warning; Frontal collision warning; Intersection support which use HMI (Human-machine-interface) technology. In

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<sup>18</sup> <http://www.dft.gov.uk/pgr/roads/vehicles/intelligentspeedadaptation/motorcycletrial.pdf> Considerations of potential means for the ISA intervention were made based on the power generation mechanism of a petrol engine: air, fuel and an ignition source. Ignition: Altering the ignition timing can lead to a small reduction in power. Interruption of the ignition system can have a major effect on power but the rough and intermittent power delivery could unbalance the rider, while excess fuel accumulating in the engine and exhaust system is likely to lead to unexpected back-firing. Fuel: Slight reductions in the fuel supply could be used to bring a small reduction in power but larger reductions would lead to incorrect fuel/air mixtures and rough or unbalanced engine running. Air: A reduction in air entering the engine can be achieved by fitting a second throttle. However, air reduction without a corresponding reduction in fuel delivery would lead to an unstable, misfiring engine that could unbalance the rider. A fundamental requirement for the ISA motorcycle is to have smooth, progressive power reduction that does not unsettle the rider. This ruled out modifying only the ignition and left a method of reducing air and fuel together as the most practical solution. A further benefit of a combined reduction in air and fuel, without alteration of the ignition, is that there is no possibility of damaging the engine.

order for these to function, the systems would require modifications to the power train e.g. the CAN BUS system. In our view these products could have serious consequences for the safety of motorcyclists, yet these “tamperings” are funded by EU and UK governments.

A pragmatic solution would be to move away from the terms “anti” or “illegal” - or as the TUV report uses “manipulation” - and to replace the language with "modification", which can either be positive or negative.

This means that there is a measured place within regulations for negative modification and also a place for values that allows for measured positive modifications of motorcycles. There may be a certain parallel in the noise testing procedure: The TA test (set of microphones/drive by test) is extensive and required to get the CoC (Certificate of Conformity). But when a registered bike is tested "on the road", e.g. at a roadside check (Enforcement) or an MOT (Road Worthiness Test), much simpler equipment is used and only checks are carried out if the parked bike complies with the dB figure in the registration document (which varies from model to model). Especially if the emissions test is by a 4-gas analyser, with values that can be measured.

There is one final issue that perhaps needs clarification with regards to road worthiness testing for "retrospective" emissions and the proposal for anti-tampering. We understand that the framework regulations aim to ensure that after a certain date all new motorcycles would have to conform to emissions and anti-tampering legislation. However, there is no mention of motorcycles manufactured before whatever date the proposed legislation comes into force with regards to emissions and road worthiness testing. L vehicles manufactured prior to the introduction of the proposed framework regulations (including classic motorcycles) could only conform to emissions from when they were manufactured.

**Question: Is it the intention of the proposal for the introduction of Road Worthiness testing (and subsequent enforcement), to measure emissions and any modifications (which could be interpreted under the new proposals as tampering) on older motorcycles including classic motorcycles?**

Perhaps the simplification of the frame work regulation and directives should be renamed: Positive Modifications – Rules and Regulations – L Category Vehicles.

### 3. Emissions

In their response to the Swedish report (the Swedish Environmental Protection Agency<sup>19</sup>), ACEM<sup>20</sup> stated that they do not want the responsibility of declaring emissions (with the eventual problem of recalls) and they cite the following reasons:

- High variety of model and engine types, in most cases produced in low production volumes compared to other vehicle categories.
- Wide geographic distribution.
- Very high proportion of in-use vehicles being unsuitable for audit.
- Frequent changes of ownership making tracing difficult.

**Question: How do manufacturers sell their vehicles to countries that require emissions within specifications?**

As mentioned previously, in the U.S., starting this year (2010) when new Environmental Protection Agency guidelines on motorcycle emissions come into effect, all new, street-legal two- and three-wheelers will be greener. The new rules will apply to any motor vehicle — including some dirt bikes and scooters — built or sold in the U.S. next year and beyond with:

<sup>19</sup> "In-Use Compliance for Motorcycles Draft Regulation Text Supporting Document (2005)"; "Principles and Elements Emissions Durability and In-Use Compliance for MC (2003)" <http://www.naturvardsverket.se/sv>

<sup>20</sup> [http://ec.europa.eu/enterprise/automotive/mveg\\_meetings/motos/meeting8/moto\\_108.pdf](http://ec.europa.eu/enterprise/automotive/mveg_meetings/motos/meeting8/moto_108.pdf)

- A headlight, tail light and brake light.
- Two or three wheels.
- A weight (curb mass) of 1,749 pounds or less.
- An engine size of 280 cubic centimeters and above<sup>21</sup>.

Thus it would appear that motorcycle manufacturers are obliged in this country to declare emissions.

You have mentioned in your email dated 8<sup>th</sup> January, that *“it is not so simple in practice to compare CO<sub>2</sub> emissions of powered two wheelers (mopeds and motorcycles), other L-category vehicles (Trikes, and quads, mini cars) and passenger cars. One of the common elements necessary for this comparison of the level of pollutant emissions, CO<sub>2</sub> emissions and Fuel Consumption of substituting means of transport is to use a common test cycle”*.

You have also mentioned that there appear to be conflicting views about In Use Compliance (IUC)<sup>22</sup>, specifically the LAT<sup>23</sup> document you refer to.

We have read quite a lot about the pros and cons of IUC, but in the end, we would like to understand whether there is a mechanism (whatever that may be) so that when we (as consumers and motorcyclists) go to a dealer to buy a new motorcycle, we can know what the environmental impact of that particular vehicle will be i.e. we can know what the emissions levels are for a specific make and model. In the US, this appears to be already possible.

We wish to make it clear that we **do not** prefer OBD to test emissions as part of Road Worthiness testing over IUC to determine limit values as part of the specifications of the vehicle. The case put forward by industry and the LAT report clearly favours OBD over IUC. In our view the simple answer is that consumers need information in order to make a decision about the product they wish to buy. If IUC provides this information, then it should be the method of choice for the industry, if it does not do the job then it is the responsibility of the industry to find another method that does.

If a consumer wishes to buy a motorcycle – any motorcycle - but at the same time wants to have a non-pollutant motorcycle (low CO<sub>2</sub>, NO<sub>x</sub> etc), why should the consumer have to wait for a year or three years (e.g. in the UK) for a road worthiness test to find out that effectively the vehicle purchased has a high level of emissions and is polluting the atmosphere.

For motorcyclists in the UK this is very important, because from April 2010 anyone buying a new car in the UK will pay a different rate of Vehicle Tax based on CO<sub>2</sub> emissions. However, motorcycles will not be included in these rates, because the CO<sub>2</sub> emissions for motorcycles (and mopeds) are not known. This is because the motorcycle manufacturers refuse to supply this information. This means that any potential savings on road tax will not be passed on to motorcyclists<sup>24</sup>.

We understand that there is a debate about which testing cycle should be used, I refer to your email of 8<sup>th</sup> January in which you state *“At least a common correlation should be established between the testing cycles like e.g. New European Driving Cycle (NEDC) and the WMTC to be able to compare the emission performance of passenger cars and motorcycles”*.

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<sup>21</sup> <http://www.columbiainmissourian.com/stories/2009/11/17/scooter-polluter/>

<sup>22</sup> "In Use Compliance" means that the manufacturer must test for emissions and declare them. It also means that if there are any faults, the manufacturer is obliged to recall the vehicle and repair it and (this is where it gets interesting) the manufacturer would effectively be responsible for the emissions of the vehicle for a period of time after the sale of the vehicle. In the case of cars, this is for 5 years or 80,000 kms, therefore presumably there would be an equivalent for motorcycles, which is yet to be established.

<sup>23</sup> The Laboratory of Applied Thermodynamics, Mechanical Engineering Department, Aristotle University, Thessaloniki, (LAT). The first LAT report "Impact assessment/Package of New Requirements Relating to the Emissions from Two and Three-Wheel Motor Vehicles", was written in 2004 and updated in 2008 (Study on possible new measures concerning motorcycle emissions – final report4)

<sup>24</sup> For an analysis of emissions and road tax in the UK see <http://www.writetoride.co.uk/emissionsbasedscheme070909.pdf>

### 3.1 Worldwide Harmonized Motorcycle Emission Test Cycle (WMTC)<sup>25</sup>

We do not have information regarding the NEDC however we have noted that “at the fifty-eighth session of the Working Party on Pollution and Energy (GRPE), the text of document ECE/TRANS/WP.29/2009/132 was adopted and will serve as a template related to the performance requirements in global technical regulation No. 2 (Worldwide harmonized motorcycle emission test cycle). The informal WMTC development group recommended starting discussions on the actual thresholds once the Commission of the European Union has proposed the next levels of Euro4 and Euro 5 emission limits, which is planned for April 2010”. The document mentions that:

- *Mopeds are already today one of the most significant contributors to hydrocarbon emissions, anticipated to be rising to 36% of total emissions by all road transport in 2020.*
- *CO emissions are high and are expected to rise from about 20% now to a share of around 36% of total road transport emissions in 2020.*

We are also aware that WMTC limit values for gaseous emissions HC, CO and NOx are to be discussed at the next WP29 meeting in June 2010 however we understand that this is dependent on the adoption by the EU Commission of the Euro4 and Euro5 proposal.

The car industry has a simple system to determine emissions so that the consumer can decide how green that car is and purchase it based on the information available (in the UK, this information is found on the government’s website<sup>26</sup>). So the process is already in place and as far as we are concerned, we should not have to provide solutions for the industry to do what we consider to be a socially responsible act – which is the declaration of emissions at the point of sale (considering the motorcycle manufacturers already have to do so in the US anyway).

In the UK, the percentage increase between 1989/91 and 2002/03 for motorcycle usage (+47%) is the highest of all modes of personal transport and second to highest for ALL forms of transport. This confirms that the alternative to cars is motorcycles as the chosen mode of personal transport. We believe that in order to demonstrate the “environmentally friendly” aspect of motorcycling, it is the responsibility of the motorcycle industry to declare emissions to ensure that motorcycles can be accepted as an environmental alternative as well.

From the perspective of motorcyclists in the UK, a very important reason for manufacturers to declare emissions within the specifications of the vehicle is due to the fact that road tax is now based on CO<sub>2</sub> emissions, there is an opportunity to encourage the purchase of low emission motorcycles in order for consumers to benefit from lower tax.

#### Questions:

- 1) **OBD – for RW testing would need a universal system. At this point in time there are different OBD systems – will there be a universal system – or will MOT stations need different systems? (with regards to cost, in the US, for example, a full emission test programme can cost \$25,000).**<sup>27</sup>
- 2) **Would the emissions test be simply taking a measurement in the exhaust pipe (like for cars), if not where?**
- 3) **Retrospective OBD for emissions. Could you clarify whether you are aiming to regulate emissions testing carried out during a compulsory RW test to include classic and/or older motorcycles (including custom and kit bikes) that do not fall within the required**

<sup>25</sup> <http://www.unece.org/trans/doc/2010/wp29grpe/ECE-TRANS-WP29-GRPE-59-inf17e.pdf>

<sup>26</sup> [http://www.direct.gov.uk/en/Dio1/DoltOnline/DG\\_10015994](http://www.direct.gov.uk/en/Dio1/DoltOnline/DG_10015994)

<sup>27</sup> <http://www.motorcycle-usa.com/313/1572/Motorcycle-Article/Motorcycle-Emissions-Regs-Examined.aspx>

standards? This is not the case for cars, nor is it the case in the US for motorcycles (or trikes).

- 4) With regards to trikes (three wheeled vehicles), customised trikes can either be car based or motorcycle based and can be commercially produced or individually customised. How will the framework regulations distinguish between car based and motorcycle based three wheeled vehicles and how will this affect the anti-tampering measures proposed?
- 5) Why should motorcyclists pay one euro for CO<sub>2</sub> markings?<sup>28</sup> What is procedure for car CO<sub>2</sub> markings? Do the car manufacturers pass on the cost to the consumer for CO<sub>2</sub> markings?

### 3.2 Identifying the “problem”

With few exceptions, the advertising of the major motorcycle manufacturers avoid environmental campaigns and they do not seem to promote a responsible attitude towards the environment. Motorcyclists have been, and continue to be told that motorcycles are environmentally friendly due to savings in fuel and the ability of PTWs to avoid congestion however, the whole issue of emissions has been side-stepped. In the absence of information, how can the consumer be expected to choose wisely?

For example in Scotland there are initiatives to offset carbon emissions for motorcycles.<sup>29</sup> This includes information about tyre pressure, bike maintenance, rider behaviour, weight and so forth. These are voluntary commitments by motorcyclists and an example that many motorcyclists are willing to reduce their “carbon footprint”.

With regards to safety, riders’ organisations have already put forward solutions to reduce casualties, which include better training for car drivers to look for motorcyclists and better hazard awareness training for motorcyclists<sup>30</sup> – specifically in relation to multiple vehicle collisions. However we are fully aware that there is an issue with single vehicle crashes and sports bikes.

As in any sector of society, there are those beyond help and in motorcycling there are examples of foolishness that the average rider does not comprehend or support but recognises as a serious problem<sup>31</sup>. There is a whole culture of road behaviour which is fuelled by magazines, advertising of specific types of motorcycles, clothes, testosterone etc. Generally, these riders do not have the survival skills required to avoid crashing, but try to copy their race track heroes on public roads: things like 'knee down' or riding the bike on the back wheel or sliding the bike - these are the sort of actions that risk takers tend to enjoy - all those things that create an image of risk, but they are a minority.

Surely the vast majority of motorcyclists who are responsible riders should not be expected to pay the price of the proposed restrictive regulations on mandatory ABS brakes, power limitations and anti-tampering for the behaviour of a minority?

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<sup>28</sup> e.g. Directive 2007/46/EC<sup>28</sup> provides that manufacturers are to issue a certificate of conformity which must accompany each new passenger car and that Member States are to permit the registration and entry into service of a new passenger car only if it is accompanied by a valid certificate of conformity, but there is no mention of passing this cost onto the consumer.

<sup>29</sup> <http://www.motorcyclescotland.com/carbon-offset-motorcycle-scotland.asp>

<sup>30</sup> [http://www.writetoride.co.uk/Motorcycle\\_Safety\\_in\\_Northern\\_Ireland\\_2009.pdf](http://www.writetoride.co.uk/Motorcycle_Safety_in_Northern_Ireland_2009.pdf)

<sup>31</sup> Studies include the Swedish Vägverket SRA in-depth study (2003); DfT In-depth study of Motorcycling page 28 and 29, Road Safety Research Report No.54, Nov. 2004; European Road Safety Observatory (2006) Powered Two Wheelers, page 29, retrieved August 1, 2008 from [www.erso.eu](http://www.erso.eu);

Motorcycle Crashes (2009): Insurance Information Institute. <http://www.iii.org/media/hottopics/insurance/motorcycle> ; (SSB) Statistics Norway on behalf of the MC-Council: The Council consists of representatives from the Motorcycle Wholesaler's Association (MGF), Safe Traffic, Police, Vegdirektoratet and NMCU (Norsk Motorcykkel Union) – see page 37 this report.



#### 4. Conclusions

We are of the view that the thrust of some interventions in relation to technical issues (reduction in brake horse power, compulsory ABS, anti-tampering) for PTWs is somewhat discriminatory, especially compared to equivalent regulations and interventions with regards to the automotive sector (cars). Equally we have found that the interventions and proposals of industry (manufacturers and dealers) appear to go beyond reasonable commercial interests.

For example the anti-tampering measures suggested by ACEM could create restrictions for the independent aftermarket sector and reduce employment and ultimately competition. While we are supportive of the use of OBD as an instrument to improve the quality and efficiency of the motorcycle, we are concerned that any premature enforcement of this technology may constrain smaller companies in the manufacturing and servicing sectors into financial difficulties and thus restrict competition which would not be in the interests of a free market nor ultimately benefit consumer choice.

In our view, the thrust of the results of documents such as the 2003 TUV report appear to misrepresent facts and we are concerned that this influence and the various interventions within the MCWG have blurred the information from which the EU Commission (DG Enterprise) must make decisions regarding the Impact Assessment.

We hope therefore, that we have been able provide you with sufficient pragmatic, constructive information in order to resolve the concerns that you have raised.

#### 5. Recommendations

We believe that changes in legislation to introduce compulsory ABS brakes are not necessary and we fully support ACEM's recommendations that there must be no change.

We believe that there is no evidence that power limitations will reduce casualties and there should be no changes to legislation in that respect. We do believe however, that there should be more emphasis on risk awareness training and attitude.

With regards to emissions, we believe that the manufacturers should provide the relevant information as part of the specifications of the PTW as they are already obliged to do in the United States of America.

Whether emissions testing should ALSO be carried out at a later date as part of road worthiness testing or periodical inspections, is in our view, a national choice given the complexities and cost of RWT and PI throughout the European Union. However we still do not understand how these tests could be carried out in the absence of information about the specific emissions for each vehicle tested.

In response to your request: *"We would be grateful if Right to Ride could provide us with pragmatic, constructive recommendations to resolve this concern, without the need to tighten the requirements on anti-tampering for all L-category vehicles"*.

Based on the information that we have provided, we believe that there is no concrete evidence to determine the extent of illegal tampering of motorcycles which may affect safety and emissions – apart from the TUV study which clearly suggests that illegal tampering is very limited. Therefore, if we accept the findings of the TUV report, we believe that the limited extent of illegal tampering does not warrant further anti-tampering measures.

Any illegal tampering which may alter either the safety or the emissions of PTWs must remain the competence and responsibility of law enforcement agencies.

We recommend that the simplification of the framework regulations and directives in relation to "anti-tampering measures" should be renamed: Positive Modifications – Rules and Regulations – L Category Vehicles.

## End notes

### <sup>i</sup> Recommendation n 1 from CARS 21 Report 2006:

*Without prejudice to the general guidelines of better regulation applied in the EU across the sectors, the following principles should apply to the regulatory process in the automotive sector (pages 18-19).*

#### **i) Principles concerning the quality of legislation:**

1. Clear and unambiguous policy objectives should be defined and priorities should be set at an early stage and with a long-term view. Proposals should remain in the framework of the objectives set.
2. A clearer method of setting priorities for motor vehicle regulation should be established.
3. The proposal of a roadmap that identifies mutually consistent priorities over the next ten years is/can be a useful instrument for this purpose.
4. The EU regulatory process should be coherent and provide for predictability (incl. the timing of rules).
5. *Generally, the EU should refrain from adopting technical legislation directly affecting the vehicle construction and functioning outside the type approval framework and at the same time consistency of type approval legislations should be improved.*
6. Product-related automotive legislation should be adopted on the basis of Article 95 of the EC Treaty and thus contribute to the better functioning of the internal market.
7. Close dialogue and co-ordination should be maintained at all stages between different parts of the European Commission and other policy makers or regulators (in particular Member States) responsible for different regulations with potential cross-impacts. This is particularly important where trade-offs have to be made between different policy objectives.
8. A more holistic approach to regulation should be taken, maximising convergence between the policy aims of different regulation in the competitiveness, environment and safety field.
9. The objectives of growth and competitiveness should be combined with the objectives of developing employment and safeguarding high social and environmental standards.
10. *All automotive legislation should be performance-oriented, technology-neutral, and over-prescriptive regulations should be avoided.*
11. *The principle that regulations should only fix objectives in terms of measurable performances, not solutions, should be strictly respected. If there are exceptions, the criteria to accept them should be given.*
12. To ensure the coherence of legislation, the Competitiveness Council should be involved in the consideration of proposals that are likely to have substantial effects on competitiveness.

#### **ii) Principles concerning simplification:**

1. EU legislation should be simplified (superfluous, obsolete or inapplicable rules should be eliminated or modified).
2. EU legislation should be simplified by strengthening the links between the European regulatory system and the framework of the United Nations 1958 and 1998 Agreements.
  - a. The recent Commission orientation to progressively replacing part of EU type approval legislation with the corresponding UN Regulations is strongly supported.

#### **iii) Principles concerning impact assessments:**

1. High quality (sound analytical approach) and comprehensive impact assessments should be undertaken at an early stage of policy development and should accompany all legislative proposals, forming a key part of the policy debate in the European Parliament and Council formations, and enabling clearer evidenced-based decision making.
2. Based on the Commission Impact Assessment Guidelines of 15 June 2005, the following are the impact assessment elements most relevant to the automotive sector:
  - a. *a cost/benefit analysis of the specific measure (economic costs, affordability test, environmental, road safety and social costs and benefits, in particular its impact on employment, which should be quantified whenever possible);*
  - b. *additional costs of forthcoming regulations should go hand in hand with an adequate welfare and consumer benefit. It is essential for European industry to have a profitable home market;*
  - c. *a cost-effectiveness analysis of the various policy options proposed to meet the policy objectives. Each measure should be assessed with respect to:*
    - i. *its effective capacity to solve a problem of concern;*
    - ii. *its feasibility (including costs, lead-time);*
    - iii. *its implications with regard to other policy areas.*
  - d. impact on competitiveness with regard to the following factors:
    - i. entire legislative framework (assess new policy proposals in terms of their consistency with existing and other pending measures);
    - ii. cumulative cost;
    - iii. any potential "first mover" advantage resulting from a European initiative in the field of automotive regulation;
    - iv. international benchmarks, both in terms of competitiveness and regulation pressure and trends (in particular, include comparisons with regulations in the USA and Japan).
3. The impact of an adopted regulation should be evaluated also some years after its implementation.
4. Stakeholder consultation should be an integral part of the impact assessment.

<sup>ii</sup> [http://ec.europa.eu/enterprise/sectors/automotive/files/consultation/2\\_3\\_wheelers/consultation\\_document\\_en.pdf](http://ec.europa.eu/enterprise/sectors/automotive/files/consultation/2_3_wheelers/consultation_document_en.pdf)

## Consultation document

### 2. Objectives

The proposal would have three objectives: simplification of the legislation (Better Regulation), new emission standards, and new safety measures. The simplification pillar consists of replacing the framework Directive and its separate Directives by a single framework Regulation. The proposal would repeal 14 Directives. At the same time, new emission and safety measures would be introduced in order to keep the legislation up to date with the latest technology developments. Therefore, it is envisaged to introduce:

- a) A new package of measures on emissions including durability, measurement of CO<sub>2</sub> emissions, evaporative emissions, as well as new emission limits for motorcycles, mopeds and quadricycles
- b) New safety measures to reduce road casualties, such as advanced braking systems, antitampering measures and specific requirements on quads.

### 3. Simplification

As an overall legislative approach, it is suggested to use Regulations instead of Directives, a "split level approach", a decrease of the number of applicable texts and an increasing use of international regulations. The 14 Directives on two- and three- wheelers will be replaced by a new set of legislation. A single basic EC regulation laying down the fundamental provisions (similar to the existing directive, and emission and noise limits) will be adopted by the colegislators whereas the technical specifications (similar to the existing specific Directives) implementing the fundamental provisions will be adopted by comitology (so called "split level approach"). This procedure will enable the co-legislators to focus on the main political objectives of the proposal (i.e. emission limits), whereas the technical issues will be dealt at the level of the technical experts. The use of regulations will avoid transpositions by Member States and associated lead time. The advantage for the different stakeholders (manufacturers, NGOs, Commission, co-legislators) will be a better legal certainty, a quicker update of the legislation and a limited number of texts to follow.

The EU has acceded to 106 Regulations of the United Nation Economic Commission for Europe (UNECE) under the 1958 Agreement<sup>6</sup>. The CARS 21 group<sup>7</sup> has shown a great interest in replacing the technical requirements of EC Directives by equivalent UNECE Regulations. This could also be applied to two- and three-wheelers in some cases. UNECE Regulations are widely accepted in countries inside and outside the EU and referring to UNECE Regulations will allow manufacturers to develop one single design which will cover all markets and thus decrease type approval cost/burden.

Finally, in order to keep consistency in the EC type-approval procedures, it seems appropriate to take into account the work done to recast the framework Directive for motor vehicles, 70/156/EEC (now 2007/46/EC<sup>8</sup>) and introduce some of the measures of the latter that are necessary for two- and three-wheelers.