



## Moving the Goal Posts! EU Commission and the TRL Anti-tampering study

On Friday, 16<sup>th</sup> September, the Motorcycle Working Group met again to discuss the issues surrounding the proposals for a regulation of 2 and 3 wheeled vehicles and market surveillance.

The Transport Research laboratory (TRL) presented their findings on Durability of pollution control measures, Light duty electric and hybrid vehicles – and they presented their findings regarding Tampering prevention.

In April this year, Right To Ride reported that the Commission had contracted the British research institute TRL to initiate a so called anti-tampering study on their behalf. As the name suggests, the study investigates the existing forms of ‘harmful power-train tampering’ as well as measures to prevent them.

**Competition Study** - <http://www.righttoride.eu/?p=6860>

“The public is called to investigate anti-tampering measures, TRL is also running a public competition - calling schools and universities to ‘identify effective solutions to these tampering events to protect the environment and the safety of road users, including the riders and passengers’. The best solution for motorcycle tampering will be rewarded with €500”.

### Aim of the TRL study and terms of reference:

1. Identify measures which can be implemented at type approval to reduce or prevent “harmful tampering” to the **drivetrain** of L-category vehicles
2. Harmful tampering has a “**detrimental impact on safety and/or the environment**”
3. **Does NOT** effect any other tampering/modification, i.e. those which have no effect on safety, environment or noise
4. This study is not gathering data on the scale of tampering in the fleet. It is developing measures to help maintain the level of safety and environmental protection provided by type approval requirements.

This last point is crucial, because as we asked in March 2011 when we were informed of the study -

“If TRL have not yet identified 1) the extent of tampering and 2) the types of tampering, is it not the case that this competition is putting the cart before the horse? In other words, would it not be better if TRL were to provide information relating to specific areas of tampering based on their findings before having a competition on anti-tampering measures?”

Then, the Commission replied: *“Its (TRL study) goal is to identify what people perceive as harmful modifications and what they feel should be addressed by type-approval legislation, this time not in the shape of a boring questionnaire that many tend to ignore, but with some incentives added to actually react to our request for input. This is the first and an important source of input to the study.*

*A second source of input will come from the type-approval and enforcement authorities via such a questionnaire, but TRL will closely monitor and follow-up with them to ensure that this time we will get a minimum amount of replies from their side.*

*A third source of input is the internet and literature study that TRL conducted.*

*These 3 sources will flow into a theoretical Tamper Mode and Effect Analysis and from this exercise the worst rated, harmful tampering methods will be identified. A selection of extremely harmful tampering methods will be tested on a representative test fleet in a limited (in time and test-fleet size) experimental testing programme during the second half of the study. The overall study results and conclusion will be presented and made public in the next MCWG meeting”.*

However back in February 2010, when we queried the results of a previous (TUV) study, the Commission then replied

*“We do not want to speculate on the phenomenon of tampered vehicles and are reluctant to extrapolate these types of data, especially as they were collected 10 years ago. **We acknowledge that the data is old and that technology has evolved fast over the last decade. It does not mean that the study results are completely obsolete, but there are reasons to conduct an additional study sometime soon. However, not having data available should not prevent us from applying common sense in the development of policy options”.***

### **Was the TRL Study a Success?**

According to TRL, the response to the competition was insufficient and it was cancelled because there were “Not enough valid entries to run the competition”. So they failed to fulfil that part of their contract with the Commission.

#### **TRL Presentation -**

[http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg\\_motorcycle/2011\\_meeting\\_september\\_2/mcwg\\_meeting\\_2011/EN\\_1.0\\_&a=d](http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg_motorcycle/2011_meeting_september_2/mcwg_meeting_2011/EN_1.0_&a=d)

#### **Our verdict: Nul points!**

“A second source of input will come from the type-approval and enforcement authorities via such a questionnaire”. However in the TRL presentation at the MCWG meeting, there is no mention of how many replied (although a questionnaire was sent to over 400 stakeholders). We can only presume that this second goal was unsuccessful, simply because they do not mention the feedback and/or any results.

#### **Our verdict: Nul points!**

That leaves theory.....

In the TRL presentation on slide (page) 35, it states:

Tampering types considered theoretically

- Effects of tampering estimated from literature/theory
- Draft selections made on tampering types to inform testing, **but still ongoing and iterative process...**

(which in layman’s terms means that they will keep going until they get the answers that they want – which is to identify harmful tampering – even if it is a complete waste of time and money).

So the answer appears to be that the TRL study was not a success.

More to the point - is harmful tampering widespread and is it a problem in terms of safety and the environment?

In an IMCO meeting early this year, there was mention that young people tamper with mopeds to increase performance, with the example that tampering in France is 50% in 2006 and 2007. (Although it's not clear what that 50% represents).

However what was NOT mentioned was that mopeds already are subject to anti-tampering measures, so the whole discussion about young people altering their mopeds was completely irrelevant.

According to the Commission and other organisations it is mainly young riders who modify their bikes outside the present regulation. This means that not only are they making their bikes technically "illegal" but also they are operating their bikes outside the restrictions of their driving licence – their bike may be made greater than 125cc or the power exceeding 11kw or power to weight ratios.

Clearly if this is the case (that young riders are getting around the anti-tampering measures fitted to their bikes), then the measures that already exist don't work and it begs the question – even if the Commission introduced anti-tampering measures, how do they intend to ensure that these measures would be enforced for any bike? It would be an impossible task.

However, irrespective of the above comments, the Commission has not provided any evidence that there are widespread harmful tampering problems and has paid a research organisation what we would presume to be a significant sum of money to provide a document which seems to explain the Commission's own inability to provide answers and justify the study but which will undoubtedly provide solutions for "harmful" tampering (of which they have no knowledge of its extent) by using "theory".

### **When did it all start?**

Back in January 2010 Right to Ride contacted the chairman of the Motorcycle Working Group (MCWG) at DG Enterprise and Industry 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/2011\\_meeting\\_september\\_2&vm=detailed&sb=Title](http://circa.europa.eu/Public/irc/enterprise/automotive/library?l=/mcwg_motorcycle/2011_meeting_september_2&vm=detailed&sb=Title)

On February 5<sup>th</sup>, 2010 Right To Ride received one of many responses from the Commission to our volume of questions.

In this case we asked: **If anti-tampering measures are introduced for the whole power train, does that mean that motorcyclists cannot (even if carried out by a mechanic) make modifications by using type approved exhaust systems?**

The Commission's response: *"Of course type approved exhaust systems will remain an alternative for motorcyclists to fit on their vehicles, as long as the retrofit exhaust systems fulfil the type approval criteria in terms of noise levels, pollutant emissions and if the general safety level is maintained (sufficient protection against burning, etc).*

*It should be prevented that type approved exhaust systems with integrated after-treatment technology are replaced by illegal down pipes with modified bricks (drilled holes to decrease back pressure) with a reduced pollutant emission reduction capability or even worse with a completely removed catalyst. To be able to identify if an alternative exhaust system is type approved supports*

*the enforcement authorities identification between a potentially compliant and non-compliant system, but it should only be considered as one of a number of instruments which can help to ensure that emission pollutant levels remain within the acceptable boundaries of type approval limits.*

*Similar statements are applicable for noise. Type approval of retrofit components and systems should help to guarantee that the obtained Whole Vehicle Type Approval by the manufacturer does not become partially or entirely obsolete”.*

We then asked: **If motorcyclists can change the (illegal) exhaust system (and then replace it with a legal exhaust system) when they have RW testing (ref. TUV report), why does the MCWG believe that the proposed anti-tampering measures would make any difference?**

The Commission replied *“We appreciate your suggestion to differentiate between legal and illegal vehicle modifications (tampering). The spirit of possible anti-tampering measures must be to discourage illegal modifications as much as possible, but to accommodate legal modifications. We hope that you appreciate that this balance is difficult to strike between these antagonists and that we have used the Impact Assessment to analyse pros and cons of the different assessed policy options. The Impact Assessment report will be published after the proposal is adopted by the Commission, providing the opportunity to track the reasons why we have selected policy options as the preferred ones”.*

On the 15th January 2011 a representative of DG Enterprise wrote once again to Right To Ride, requesting our views and recommendations to the proposals for changes to the framework regulations in relation to L category vehicles.

Specifically they asked:

*“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”.*

### **Right to Ride replied:**

*“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<sup>1</sup> (page 9 of amendment to directive - ACEM).*

We will comment on the TUV document 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)”.*

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<sup>1</sup> In this respect what this suggests is that by expanding anti-tampering measures to A2 category within the new 3DLD, anybody who wants to move up to A category (unrestricted) from A2 category would be obliged to buy a new motorcycle, because if the A2 category motorcycle had anti-tampering measures imposed, it would be illegal to de-restrict it.

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”.

## TUV Study 2003<sup>2</sup>

In our email to the Commission back in February 2010, we asked the following:

**It appears that the TUV authors are stating that effectively the percentage of manipulated vehicles refers only to fault code 802 – Exhaust system – wrong model (0.824%<sup>3</sup>) 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 evidence of tampering.**

The Commission replied:

*“We do not want to speculate on the phenomenon of tampered vehicles and are reluctant to extrapolate these types of data, especially as they were collected 10 years ago. **We acknowledge that the data is old and that technology has evolved fast over the last decade. It does not mean that the study results are completely obsolete, but there are reasons to conduct an additional study sometime soon. However, not having data available should not prevent us from applying common sense in the development of policy options.** We are looking forward to closely cooperate with riders associations like Right to Ride and FEMA, and also with the industry in order to develop a concept, which is sensible, effective and coherent”.*

At Right To Ride we argued that the authors of the TUV report produced an estimation of the magnitude of the manipulations that can be found in statistics and estimations of some (German) inspection services in which these vehicles are subject to periodic technical inspection. The percentage of faults found there was just under 5% (...) (page 79 of 81 of summary).

As mentioned above, the authors provided evidence of manipulation in one fault (code 802 – Exhaust system – wrong model) which was 0.82% of overall faults and it would appear that 50% of these faults (code 802) were due to technical defects and wear, which would therefore suggest that the overall “problem” was 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

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<sup>2</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)

<sup>3</sup> *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”.*

[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)

problem, the solutions proposed by ACEM and the Commission 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 to which the Commission has signed up to *“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.

In May this year, the Chairman of the IMCO committee Malcolm Harbour commented that

*“Anti-tampering measures are intended to stop alterations to the vehicle’s power for safety purposes or to meet environmental performance requirements. These are currently limited to mopeds and motorcycles under 125cc producing less than 11kW. However, the Commission proposes to extend cover to all vehicles within the scope of the draft law.*

*The Committee will be taking a close look at this proposal because the associated costs and benefits have not been covered in the Commission’s Impact Assessment. I agree that these relative merits first require proper justification.*

*The likely manner in which we will achieve this is by introducing an obligation on the Commission to undertake further cost benefit assessments, on a case-by-case basis, before any specific anti-tampering technical measures are proposed.*

*We will also be considering the extent to which the Commission’s anti-tampering proposals may restrict after market part manufacturer’s ability to sell their products because of potential difficulties they may have in getting their products type approved, particularly if produced in small volumes”.*

We at Right To Ride have said before and we’ll say again, we get the impression that this and other parts of the EU Commission’s proposal and many of the amendments put forward in the IMCO committee are not based on scientific fact nor even statistical evidence, but simply on the premise of “what a good idea”.

In terms of the so-called “safety” proposals – including anti-tampering, the Rapporteur of the IMCO Committee and the Commission indicate that, “In 2008, 5,520 PTW riders died in road accidents<sup>4</sup>”, and that, “In contrast to other vehicle types these figures for L-category vehicles have remained static or even slightly increased.” They have based their reasoning for the compulsion of safety devices such as ABS and AHO and anti-tampering for safety reasons on these figures.

However, this statement is contradicted by the same ETSC - “Countdown to 2010 - Only two more years to act! 2nd Road Safety PIN Report”, which states the following:

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<sup>4</sup> [http://www.etsc.eu/documents/copy\\_of\\_copy\\_of\\_copy\\_of\\_2nd%20PIN%20Annual%20Report%202008.pdf](http://www.etsc.eu/documents/copy_of_copy_of_copy_of_2nd%20PIN%20Annual%20Report%202008.pdf)

“At least 6,200 Powered Two Wheeler (PTW) riders were killed in road crashes in 2006 in the EU 25.” Thus, n.6,200 fatalities in 2006 less n.5,520 fatalities in 2008 is a decrease of 11% or n.680 fatalities over two years.

While ACEM<sup>5</sup> accepts that “compared to other modes of transport, PTWs have shown a slower rate of improvement with a reduction of 14% in all PTW fatalities in a context of a 17 % increase in the parc (the greatest boost of all vehicle parcs) over the period 2001-2008<sup>6</sup>”, the authors of the ACEM report highlight that “Moped safety has improved. Between 2001 and 2008, there have been 41% less moped fatalities, an important reduction in a quite stable circulating parc. Moped riders have made the greatest achievements in terms of safety in comparison to all road users.”

As there are no further figures available from 2010 to compare to in terms of European statistics for motorcycle fatalities, it is not possible to determine whether there has been a further reduction in fatalities throughout Europe. However using the Department for Transport data for fatalities in 2010 in GB, it shows that there were 403 fatalities which was a reduction of 15% of motorcycle fatalities over the previous year (2009). In the case of Northern Ireland there was a reduction of 50% of motorcycle fatalities between January 2010 and January 2011.

Therefore it would appear that the premise on which the impact assessment and cost benefits for introducing anti-tampering measures and safety technology such as ABS/CBS that has been carried out, is flawed and completely unnecessary.

Based on the information above, it does seem that whatever facts are presented, the Commission just keeps moving the goal posts. What is really worrying is that with few exceptions, the MEPs in their fervour to save lives and reduce emissions, have given the Commission Carte Blanche to cripple an industry and ratchet up the cost of two wheeled transport and leisure, thus creating further hardship and potentially driving up unemployment as companies struggle to implement the proposed regulations.

We have to agree with ACEM – at the MCWG meeting on Friday, their representative told the Commission and members with regards to the timetable for implementing the proposed regulations that the revised Commission proposal was “a Nightmare Scenario” and commented that the Commission was “changing the rules in the middle of the game”.

At Right To Ride, our view is that not only have they changed the rules in the middle of the game, but they have also moved the goal posts!

We can't help but think that the famous statue in Brussels has taken on a whole new meaning.

Dr Elaine Hardy  
Trevor Baird

Right To Ride Ltd

19<sup>th</sup> September, 2011

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<sup>5</sup> [http://www.acem.eu/media/d\\_Policyorientationsroadsafety\\_\\_ACEM\\_22973.pdf](http://www.acem.eu/media/d_Policyorientationsroadsafety__ACEM_22973.pdf)

<sup>6</sup> ACEM's figures are drawn from the OECD Road Transport Research Programme International Road Traffic and Accident Database (IRTAD)