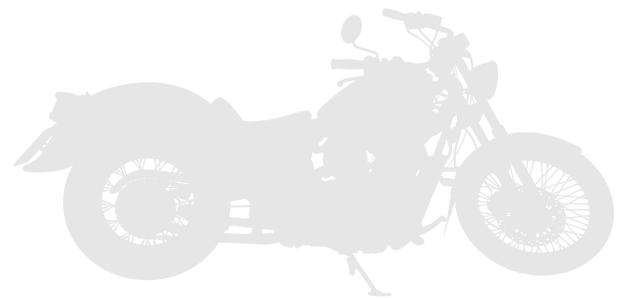


# Response to Public Consultation

## Daytime Running Lights

### Road Safety Authority (RSA)

### Vehicle Standards



Right To Ride Ltd  
Northern Ireland

January, 2010

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## Introduction

This document is submitted by “Right To Ride” in response to the Road Safety Authority’s (RSA) “Daytime Running Lights (DRL) Consultation, which seeks the views and advice of interested parties on introducing DRL measures earlier than the EC Directive 2008/89/EC making DRL mandatory for all new vehicles from 2011, whereby all road vehicles would be required to use either dipped head lights during hours of daylight or dedicated DRL.

## Right To Ride

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.

## Foreword

Although based in Northern Ireland there are issues contained in the DRL consultation that will undoubtedly affect motorcyclists in Northern Ireland.

In motorcycling terms there has always been an “open” border between Northern and Southern Ireland with motorcyclists travelling between the “physical” boundaries, which are both part of the European Union.

Ireland can be seen as being unique with borders contained within the island of two European Union Member States and with sea links to England, Wales, Scotland and France, equally, motorcycling citizens of Europe can freely travel to Ireland.

Motorcyclists in Ireland as individuals and as a “community”, travel across North and South both for business (commuting) and leisure activities (motorcycle events such as road races – motorcycle meetings (rallies), charity runs and touring).

## Response

The consultation lays out two options for implementing DRL in Ireland:

**Option 1.** All vehicles, including new and existing to use DRL.

**Option 2.** The minimum European requirements to be implemented in Ireland, thus only affecting new vehicles from the dates set out in EC Directive 2008/89/EC.

Our views and advice laid out in this response are favourable for **Option2**.

## What is DRL

The mixed message contained in the consultation is confusing as the document is entitled “DAYTIME RUNNING LIGHTS”.

## Dipped Headlights

On the second page of the consultation the page graphic states , “The Bright Way To Save Lives” – “Its not just at night that you need to turn on your lights” – “Dipped headlights are an effective way to reduce the number of collisions on our road”.

## **DRL (Daytime Running Lights)**

The document states that there are two types of DRL: dipped headlights or dedicated lights that automatically switch on when the engine is started.

The document further states that: *“Dipped head light DRL – the dipped headlights are lit at all times whilst driving.”*

We would argue that dipped headlights that are lit at all times are not DRL, these are lights that are designed for the driver to see and be seen at night and not designed for the vehicle to be seen during the day, with associated issues of glare, approaching speed.

There are (or were in certain cases) dimmed dipped headlights, these are systems that when the vehicle is operated, the headlights operate at a reduced output and the headlights operate normally when the headlight switch is turned on.

Regarding fuel consumption, costs, environmental impact in the appendixes we wonder for vehicles that will use dipped beam headlights whether the factor that not only the headlight is on but that the taillights will also be on, this has not been clarified.

We also note that some cars are now fitted with an automatic sensor that will turn the dipped headlight on when the lighting conditions fall below a certain level.

The document recognises the issue of dipped beam use in daytime by stating that: *Whilst dipped headlights are more powerful than dedicated DRLs they are designed and focused for use when meeting oncoming traffic so other road users are not dazzled or suffer from glare.*

It would appear that the RSA recognizes that there would be an issue with dipped headlights to be on at all times, due to their power and while dipped headlights are designed and focused for use when meeting oncoming traffic so other road users are not dazzled or suffer from glare, this does not mean that headlights in certain situations, including bad alignment will not glare or dazzle. Headlights are designed for night time use when drivers are aware of the issues of night time driving and should adjust their driving.

Regarding Dedicated DRL the document states that: *“these lights are of lower power than dipped headlamps but are focused differently so that they can provide sufficient illumination to alert other road users. Dedicated DRL typically use LED (Light Emitting Diode) bulbs which are more energy efficient and last longer when compared to normal filament bulbs.”*

This statement reflects the minimum European requirements that are to be implemented in Ireland and in fact across Europe, which affects new vehicles from the dates set out in EC Directive 2008/89/EC.

## **Motorcycle Specific**

Since 2001 Motorcycle manufacturers have voluntarily removed the headlight on/off switch from motorcycles and equipped most motorcycles with AHO (Automatic Headlights On) – dipped headlight.

The dipped beam headlight will not come on when the vehicle ignition is switched on, but operates when the engine is started and running.

The concern is that when *all* vehicles have their dipped beam lights on, motorcycles will lose any advantage in terms of conspicuity that there may have been.

As mentioned above in relation to glare and for example intersections, there is considerable documented evidence of the inability of car drivers to “see” approaching motorcycles – in spite of the fact that these motorcycles have dipped headlights on.

On the subject of headlight use, some motorcyclists will ride with their main beam on. This seems to be indicative of the opinion that “bright is always right” for all conditions in the belief that having brighter lights on will identify motorcycles from the rest of the traffic.

## The Directive

The initial EC (European Commission) approach was intended to be a technical requirement to equip all vehicles with automatic dedicated daytime running lights, coupled with a requirement for the vehicle operator to use dipped beam headlights.

In an attempt to harmonize lighting on vehicles across Europe, this directive went through the usual European processes to achieve this outcome. There was debate and input, especially regarding the concerns of the motorcycle sector. Therefore it would appear that this consultation in Ireland aims to ignore and/or negate the European directive.

The European motorcycle representative organisation FEMA (Federation of European Motorcyclists' Associations) has stated that in principle it is not opposed to dedicated DRL for other road vehicles providing these are completely different from a motorcycle dipped-beam headlight.

FEMA further stated that, "The adoption of dedicated DRL appears to be the "least worse" solution in terms of road safety, even though European motorcyclists - along with pedestrians and cyclists - still have reservations regarding the fact that responsibility to watch out for other road users will be removed from the other vehicle driver.

The author of this document (Trevor Baird) was present at an FIA (Federation Internationale de l'Automobile) meeting on DRL in November 2007 - following the EC's consultation on Daytime Running Lights (DRL) – subsequent to this meeting the Head of the European Commission's Road Safety Unit, Dr Stefan Tostmann, announced that the Commission would call for a 6 month moratorium in the United Nations (World Forum for Harmonisation of Vehicle Regulations (WP29) legislative process.

The doubts that emerged at the EC were regarding the validity of the research on DRL and the possible negative impact of DRL on vulnerable road users.

This same research is quoted and referenced by the RSA consultation document to prove the point that all vehicles should use new and existing DRL in Ireland. As we have mentioned previously in this document, dipped headlights in our opinion are not Daytime Running Lights (DRLs).

## First Conclusion

Right To Ride is of the opinion that it would be unacceptable to adopt the measure for all vehicles to use dipped headlights that would put the life of vulnerable road users, including motorcyclists, at risk.

In reference to chapter 7 of the consultation, regarding possible exemptions for classic and collectable vehicles, many of which are motorcycles: *"Technically, it may be difficult for certain classic/collectable vehicles to have their dipped head lights turned on at all times. Therefore, their inclusion in possible DRL regulation would require further consideration. Also certain agricultural vehicles which are only used during day time hours are not required to be fitted with lights, hence they may be outside the scope of DRL legislation."*

However although there is a recognition that, *"it may be difficult for certain classic/collectable vehicles to have their dipped head lights turned on at all times"* the chapter also says, *"they may be outside the scope of DRL legislation."*

We would state at this point that , if Option 1 is implemented, *classic or collectable* motorcycles that cannot have their dipped head lights turned on at all times, for whatever reason, either technical or by design should be exempt from having their dipped head lights turned on at all times or any requirement of any retro fitted lighting systems.

Enthusiasts and representative organizations E.G Fédération Internationale des Véhicules Anciens (FIVA)<sup>1</sup> encourage the safe use of these motorcycles and indeed all self-propelled, mechanical vehicles on the roads for the benefit of both their owners, dedicated enthusiasts and the general public.

Any ban from the public roads of these motorcycles that are part of motorcycling heritage would be discriminatory.

## Motorcycle Safety In Northern Ireland - The Rider's Perspective - Revised September 2009<sup>2</sup>

In 2009 Right To Ride produced the Motorcycle Safety In Northern Ireland - The Rider's Perspective.

The document includes a specific section on Daytime/Dedicated Running Lights, which we have reproduced below, this deals with the specific issues surrounding motorcycles regarding the DSA consultation on the requirement for all vehicles to use DRL or dipped headlights.

It also supports our opinion that Option 2 should be the option implemented in Ireland.

### **Daytime/Dedicated Running Lights<sup>3</sup>**

The European Road Safety Action Programme (RSAP) addresses the problem but at the same time calls for the mandatory use of Daytime Running Lights (DRL) for all vehicles.

The European Commission has now opted for 'dedicated' daytime running lights (diode lights) rather than dipped-beam headlights, in order to reduce road casualties. However, in spite of more than fifty studies on daytime lighting over thirty years, the case in favour of daytime running lights – of any type - is politically driven and still lacks sufficient evidence, due to the difficulties in achieving a reliable measurement of the effect of DRL<sup>4</sup>.

By examining casualty data for all road users over a 15 year period in countries that have compulsory DRL with countries that do not, the results give a very clear picture of the effectiveness of DRL.

**Table five: Percentage change in fatalities 1999-2005**

	Austria	Belgium	Finland	G.B.	Ireland	NL	Norway	Sweden
1990	1558	1976	649	5217	478	1376	332	772
2005	768	1089	379	3201	400	750	224	440
	-50.7%	-44.9%	-41.6%	-38.6%	-16.3%	-45.5%	-32.5%	-43.0%

Table six demonstrates that Austria had a 50.7% reduction in fatalities between 1990 and 2005 - prior to the introduction of DRL in 2006; Belgium and Netherlands had similar results in fatality reductions, respectively 44.9% and 45.5% less fatalities in 2005 compared to 1990.

Sweden (a DRL country) had a 43% reduction in fatalities, while Great Britain had a reduction of 38.6% over the same period. Finland (a DRL country) had a 41.6% reduction followed by Norway (a DRL country) with a reduction of 32.5% over the same period.

Finally Ireland had the lowest reduction in fatalities between 1990 and 2005, of only 16.3%. In the event, three non DRL countries (Austria, Belgium and the Netherlands) had a higher overall reduction in fatalities compared to the DRL countries during the same period.

<sup>1</sup> [www.fiva.org](http://www.fiva.org)

<sup>2</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>3</sup> [MAG Response to European Commission Daytime Running Lights Consultation September 2006 pdf 204kb](#)

<sup>4</sup> Prower, S., Research officer of the British Motorcyclists Federation.

According to the Irish National Road Authority (NRA)<sup>5</sup>, the most important factor contributing to a large extent to road fatalities in Ireland (92%) is the behaviour of the road user and the behaviour of drivers contributes to 76.9% of road fatalities. The NRA document highlights two principle causes as excessive and inappropriate speed and driving while intoxicated, whether through drugs or alcohol.

Indeed such is the concern of the Irish government that a series of initiatives were announced by the Minister for Transport:

- to extend the number of offences attracting Penalty Points to 35 and
- the drafting of legislation for the introduction of Random Breath Testing are to be greatly welcomed.
- the Garda (police) fixed charge payment system will be fully computerised and the pulse system linked to the courts for the roll out of the extended penalty points system on 1st April 2006.

In relation to the justification of mandatory DRL to reduce casualties in Ireland, how effective could DRL be to a person who is intoxicated? If drink driving is a major factor in fatalities in Ireland, how would the introduction of DRL make a difference?

An intoxicated driver would not improve their ability to drive carefully, because this type of driver would not be in full control of the vehicle.

Also in Norway, similar issues of those identified as the cause of fatalities in Ireland (speeding and drink driving) are amongst the major reasons for road accidents<sup>6</sup>

We accept that the data presented here may not provide concrete evidence that DRL has any effect one way or the other, but then nor have the EU Commission's 'experts'. What we offer however is another point of view based on statistical analysis. The choice of these four countries is due to the similarities in trends as highlighted in the previous table and offers a snapshot from 2004.

**Table six - Comparison of collision statistics in 2004 from four countries**

	<b>Car occupants</b>	<b>PTWs</b>	<b>Pedestrians</b>	<b>Cyclists</b>	<b>Total</b>
Sweden	68	31	50	14	163
Norway	41	20	10	2	73
Ireland	43	14	30	4	91
Great Britain	494	227	388	61	1170

In terms of percentage differences, the following figure demonstrates that Sweden and Great Britain have very similar collision data. Norway and Ireland both have small populations, however what is evident from the following figure is that Norway – a DRL country has a higher proportion of fatalities between vehicle users – i.e. cars and cars (56.2%); cars and motorcycles (27.4%) (which all have head lights), though a lower proportion of fatalities due to collisions between cars and pedestrians (13.7%) and cars and cyclists (2.7%).

Norway also has a higher proportion of fatalities between vehicle users in comparison to Sweden – another DRL country - where the fatalities due to car collisions is 41.7% and 19% for collisions between cars and motorcycles.

<sup>5</sup> Presentation To The Joint Committee On Transport Wednesday 8th February 2006 By Noel Brett, Acting Chief Executive, National Safety Council.

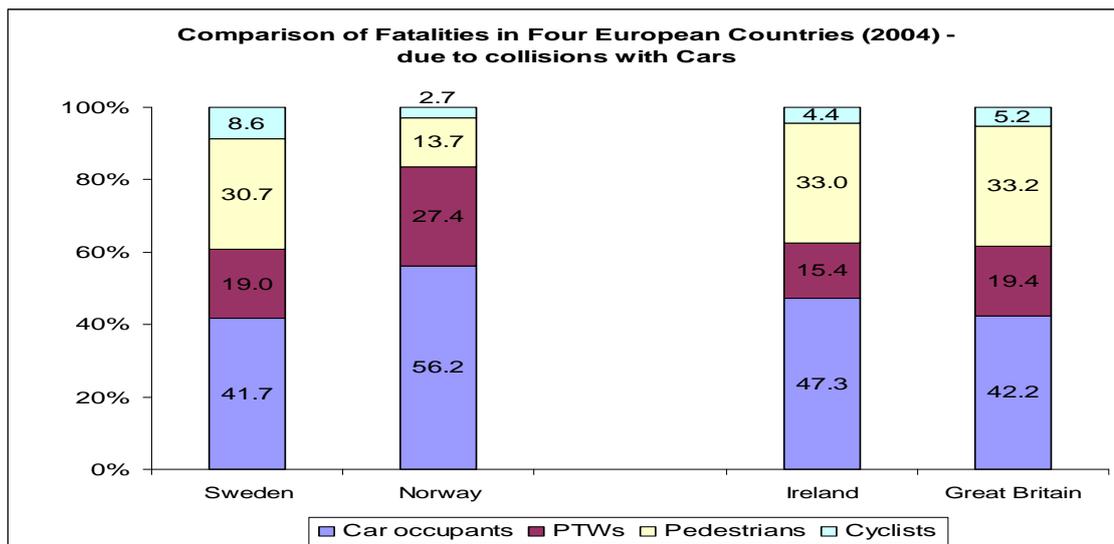
<sup>6</sup> Joint Oecd / Ecmt Transport Research Centre Country Reports On Road Safety Performance

What can be observed in Figure one is that there is a significantly higher proportion of pedestrians killed by cars in Ireland (33%), Great Britain (33.2%) but ALSO in Sweden (30.7%) compared to other 'so called' vulnerable road users.

In fact in Sweden 8.6% of cyclists are killed by cars compared to only 4.4% in Ireland and 5.2% in Great Britain.

However, as mentioned previously, in Norway the proportion of motorcyclists killed by cars is significantly higher than the countries not adopting mandatory DRL (27.4% compared to 15.4% in Ireland and 19.4% in Great Britain).

**Figure one: Comparison of collisions by road user in 2004 from four countries**



In consideration of the comments from the EU Commission consultation paper that:

- Road users not having daytime lighting devices, i.e. pedestrians and cyclists do not become less conspicuous if all vehicles use DRL;
- A negative effect of DRL on the visibility of motorcyclists cannot be ascertained.

The data in figure one suggest that these assumptions are not necessarily the case. In fact, the two questions that arise from these data are:

- 1) Do car drivers 'see' pedestrians or cyclists?
- 2) Are motorcycles conspicuous in all the four countries analysed? (consider that in the non DRL countries the vast majority of motorcycles are hard wired (AHO) so that the head lights turn on automatically).

The answer appears to be no – which is supported by the results of the Danish document presented to the United Nations Inland Transport Committee Working Party on Road Traffic Safety in 2001.

The common denominator in these four countries may be due to the fact that there is no specific testing or training for car drivers in terms of road awareness for vulnerable road users including motorcycles, with the exception of Norway, but this was introduced in 2005.

In the case of Ireland, there is another factor which is that until recently, learner drivers did not have to be accompanied and this was considered by the RSA to be a major causation factor for collisions with motorcyclists.

The most obvious and most worrying implications of DRL, is that of displacing the responsibility from car drivers to look out for other road users onto other road users to become responsible to look out for cars.

This may affect insurance claims – whereby the insurer may not pay out damages to other road users – with the caveat that they should have ‘seen’ the lights of the vehicle. It may also have a ‘moral hazard’ effect, which means that car drivers feel less inclined to take due care when driving for the reasons explained previously.

***The ITF/OECD report on motorcycle safety (2008) priority number nineteen recommends that “to improve rider/motorcycle conspicuity; for new motorcycles, headlamps should come on automatically when the engine is started; for other motorcycles, riders should switch on their headlamps before they start their journey”.***

Therefore, this priority identified by the ITF/OECD report is in any case unnecessary, due to the fact that a voluntary agreement by the motorcycle industry in 2001, ensured that motorcycles would be hard-wired (i.e. switch on automatically) but more to the point, there is still no evidence that daytime running lights reduce road casualties.

In the event, too much focus on DRL (and brightly coloured clothing) removes attention away from far more important factors that can prevent collisions between cars and motorcycles, namely:

- **Better awareness:** theoretical and practical hazard perception tests must identify motorcycle awareness as a fundamental part of the testing regime of car drivers;
- **Better training:** extend the testing and training of car drivers to look for vulnerable road users, including motorcyclists; training and awareness techniques for motorcycle riders;
- **Improvement of data collection:** preventative information, casualty and accident statistics, accurate data and realistic definitions;
- **Further research:** the impact of DRL (Dedicated Running Lights) needs further investigation.

### **Related to Safety – 2009 RSA consultation Motorcycle Safety Action Plan**

In June 2009 Right To Ride responded<sup>7</sup> to the RSA consultation which sought to obtain the input and views of a broad range of stakeholders on the enhancement of motorcycle safety on Irish roads through the development of a fully integrated Motorcycle Safety Action Plan.

This Action Plan seeks to reduce the proportion, number and severity of motorcyclist casualties occurring on Ireland’s Roads by 2012 through co-ordinated and multi-disciplinary programmes relating to Engineering, Equipment, Enforcement, Education and Evaluation as follows:

To reduce the number of motorcyclist fatalities by 57% or better, from a base of the 2004-2006 average of 46 to 20 by 2012.

To reduce the proportion of motorcyclist fatalities from the 2004-2006 base of 12%, to 7% or better by 2012.

To reduce the number of motorcyclist injuries by 25% or better by the year 2012, from a base of the 2004-2006 average of 558 motorcyclist injuries per annum to 419.

Too much focus on brightly coloured clothing removes attention away from far more important factors that can prevent collisions between cars and motorcycles, namely:

- **Better awareness:** theoretical and practical hazard perception tests must identify motorcycle awareness as a fundamental part of the testing regime of car drivers;

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<sup>7</sup> [http://www.writetoride.co.uk/Consultation\\_response\\_RSA\\_Write\\_To\\_Ride.pdf](http://www.writetoride.co.uk/Consultation_response_RSA_Write_To_Ride.pdf)

- Better training: extend the testing and training of car drivers to look for vulnerable road users, including motorcyclists; training and awareness techniques for motorcycle riders;
- Improvement of data collection: preventative information, casualty and accident statistics, accurate data and realistic definitions;

Also regarding hi-visibility clothing, the November 2004, DfT (Department for Transport – GB) published report called Behavioural Research in Road Safety.

The report covers a variety of studies which focus on specific causes to road accidents. One of these studies is called 'An in-depth case study of motorcycle accidents using police road accident files' by the authors DD Clarke, P Ward, W Truman and C Bartle.

The most significant finding of this study with regards to right of way violation (ROWV) accidents, suggests that in particular, there is a marked problem with other road users observing motorcyclists. This is the phenomenon whereby drivers overlook a motorcyclist in the immediate foreground seems to be in agreement with the work of Mack and Rock (op. cit.), whose theory of 'inattention blindness' showed that subjects may be less likely to perceive an object if they are looking at it directly than if it falls outside the centre of the visual field. 'Inattention blindness' is suggested by research to be affected by four main factors: conspicuity, expectation, mental workload, and capacity.

'Some results would seem to permit the discussion of conspicuity and expectation. **The fact that many motorcyclists in our sample appear to be trying to make themselves more conspicuous but are not seen nevertheless lends credence to the idea that there is something amiss in the cognitive processes of the other involved driver.**

The 'expectation' factor, in particular, raises the possibility that some road users have a poor perceptual 'schema'<sup>12</sup> for motorcycles in the traffic scene, and therefore do not process the information fast enough when motorcyclists are observed' (page 14).

Specific to DRL the document says that – the RSA will, *“Monitor ongoing and future research into the safety benefits of daylight running lights for motorcyclists, and liaise with user group representatives and other bodies who are for and against the introduction of such practices in Ireland.”*

We are concerned that this monitoring for motorcycles as regards to the possible introduction of DRL and dipped beam headlights for all vehicles has not taken place or has not been concerned in this present consultation.

#### **Our response at that time was:**

According to the Irish National Road Authority (NRA), the most important factor contributing to a large extent to road fatalities in this country (92%) is the behaviour of the road user and the behaviour of drivers contributes to 76.9% of road fatalities. The NRA document highlights two principle causes as excessive and inappropriate speed and driving while intoxicated, whether through drugs or alcohol. Indeed such is the concern of the Irish government that a series of initiatives have been announced by the Minister for Transport:

In relation to the justification of mandatory DRL to reduce casualties in Ireland, how effective could DRL be to a person who is intoxicated? If drink driving is a major factor in fatalities in Ireland, how would the introduction of DRL make a difference?

An intoxicated driver would not improve their ability to drive carefully, because this type of driver would not be in full control of the vehicle.

As mentioned previously, until recent changes in legislation, car drivers with provisional licences did not even have to be accompanied, which according to the Road Safety Authority, was a cause of numerous motorcycle casualties (14% of all motorcycle casualties) Analysis revealed that the trend in the number of motorcyclists injured each year in collisions involving unaccompanied learner drivers of other vehicles is decreasing (possibly due to the change in legislation).

In 2006, 59 motorcyclists were injured by unaccompanied learner drivers compared to 157 in 2002.

There needs to be more focus on human behaviour rather than relying on passive safety to reduce casualties.

Also regarding the safety action plan for motorcycles the consultation stated, *“Monitor ongoing and future research into the safety (dis-) benefits of the use of coloured headlamps on motorcycles.”*

This statement we supported, however the RSA now appear to have forgotten these statements and forgotten the motorcycle and motorcyclists regarding DRL and using dipped beam headlights by all vehicle.

## Conclusion

There is no concrete evidence that DRL will enhance the visibility of all vehicles to increase road safety by reducing the number and severity of collisions by the adoption of **Option 1**.

In fact it is our opinion that the safety of motorcyclists will be compromised with the possibility of the increase of the number and severity of collisions not only for motorcyclists but also vulnerable road users – pedestrian – cyclists - with this “experiment”, while the EC directive in **Option 2** is an acceptable compromise.

The ECC Directive states, “In order to increase road safety by improving the conspicuity of motor vehicles the obligation for fitting dedicated daytime running lights on these vehicles should be introduced into Directive 76/756/EEC.<sup>8</sup>”

It does NOT mention any requirement for all other vehicles to turn their headlamps on.

If this premature and flawed introduction of **Option 1** is implemented there is the possibility that research on motorcycle conspicuity currently being investigated by ACEM (Motorcycle Industry in Europe)<sup>9</sup> will be useless in Ireland in the future.

ACEM have stated that their preliminary conclusion, using their simulator methodology was found to provide a powerful tool for researching differences in driver behaviour and collision probability with varying daytime lighting treatments in this sample of real PTW (Powered Two Wheeler) accident scenarios, which involved realistic driving in urban and rural conditions, and various primary and secondary realistic driving tasks.

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Elaine Hardy  
3rd February 2010

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<sup>8</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32008L0089:en:NOT>

<sup>9</sup> [http://www.acem.eu/cms/conspic\\_method.php](http://www.acem.eu/cms/conspic_method.php)

## **ANNEX 1**

Related documents and links

### **United Kingdom**

MAG Response to European Commission Daytime Running Lights Consultation September 2006 pdf 204kb

[http://www.writetoride.co.uk/MAG\\_20UK\\_20response\\_20to\\_20EU\\_20Commission\\_20on\\_20Daytime\\_20Running\\_20Lights.pdf](http://www.writetoride.co.uk/MAG_20UK_20response_20to_20EU_20Commission_20on_20Daytime_20Running_20Lights.pdf)

DfT Report - Daytime Running Lights (DRLs) - October 2006 pdf 323kb

<http://www.writetoride.co.uk/daytimerunninglampsfinalreport.pdf>

The Association of Drivers against Daytime Running Lights - Motorcyclists External Website

<http://www.dadrl.org.uk/motorcyclist.html>

### **Europe**

FEMA - Saving (Car Drivers) Lives With Daytime Running Lights - November 2006 pdf 166kb

[http://www.writetoride.co.uk/positionpaper\\_drl\\_consultation\\_nov2006.pdf](http://www.writetoride.co.uk/positionpaper_drl_consultation_nov2006.pdf)

### **Belgium**

MAG Belgium - Dossier pdf 428kb

<http://www.writetoride.co.uk/MAGBelgiumDRL.pdf>

### **France**

FFMC - Fédération Française des Motards en Colère – DRL pdf 60kb Document translated Via Google

<http://www.writetoride.co.uk/ffmcdrl.pdf>