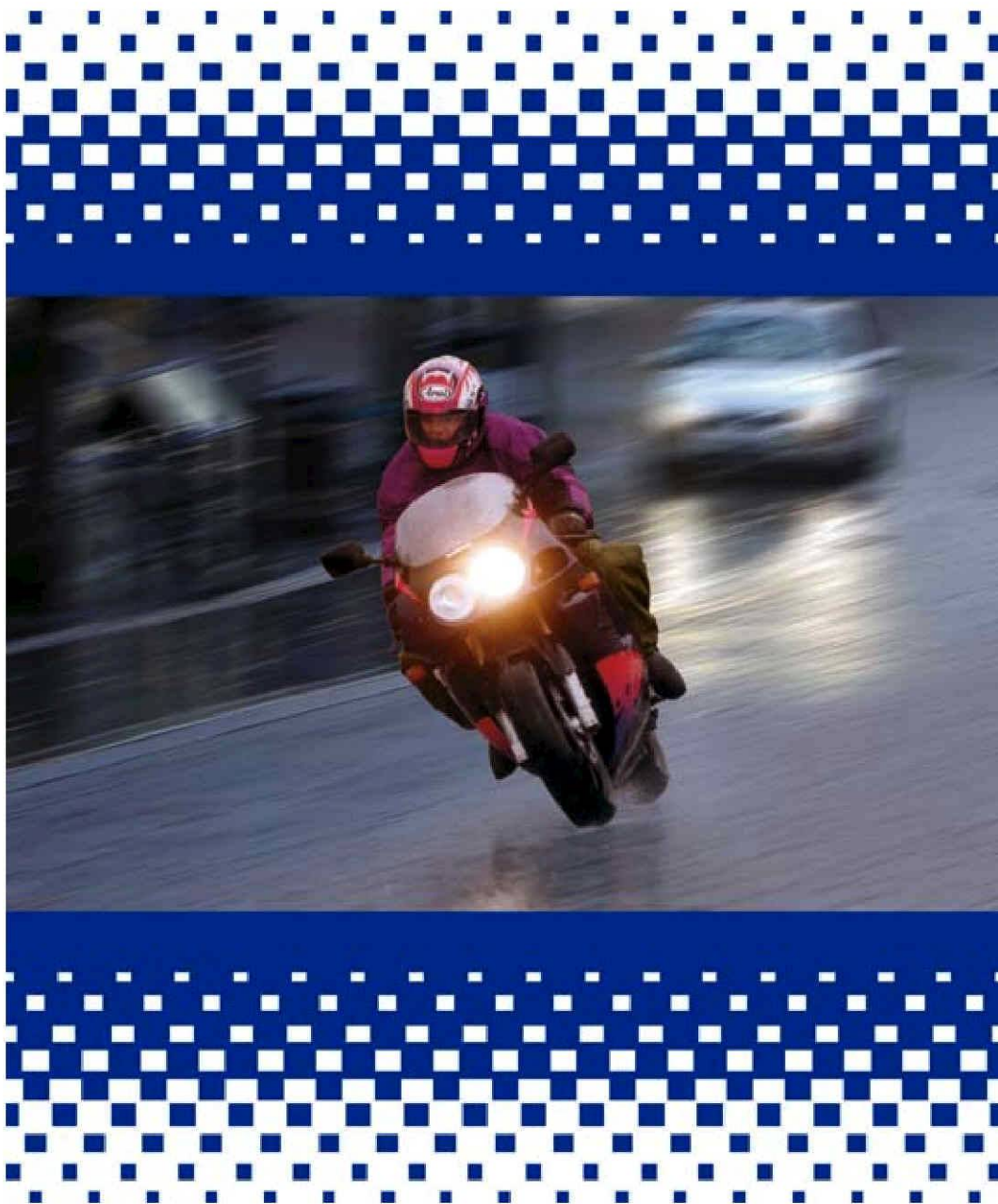


# *European Agenda for Motorcycle Safety*



**OUTLINE**  
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## Interactions with other road users

In many European countries, collisions between cars and motorcycles constitute nearly 50% of all motorcycle accidents. In a collision between a car and a motorcycle, it is almost inevitable that the rider suffers injuries of some kind.

Studies indicate that 8 of 10 collisions between cars and motorcycles are caused by inattentive car drivers, e.g. the car driver is the offending party, usually violating the motorcyclist's right-of-way. Thus, the most effective way to reduce fatalities and injuries resulting from collisions between cars and motorcycles is to emphasize driver awareness and rider collision-avoidance strategies.



### Driver Awareness

Several factors have been put forward, trying to explain why car drivers tend to overlook motorcyclists:

- Motorcycles and their riders are a relatively small component of the total traffic mix and therefore their visual recognition is reduced
- Many drivers do not anticipate routine encounters with motorcyclists in traffic
- Motorcycles are smaller visual targets and are more likely to be obscured
- Drivers tend to scan for large rectangular objects with their main axis being horizontal (cars) rather than smaller objects with their main axis being vertical (motorcycles)
- Cars have blind spots, such as door pillars, that can hide a motorcycle and rider
- Objects and environmental factors, including other vehicles, roadside objects and light patterns can make it more difficult for drivers to identify motorcyclists in traffic
- Traditional driver distractions, such as eating, smoking, managing audio systems and operating mobile phones

However, a motorcycle is not at all *impossible to see*. Research shows that drivers who also ride motorcycles, and those with family members or close friends who ride motorcycles, are more likely to observe motorcyclists and less likely to collide with them. This more than indicates that the most important factor causing car drivers to overlook motorcyclists is that the drivers' minds are not set to observe motorcycles.



One possible explanation may be that the car driver does not have a mental perception of a collision with lighter vehicles like motorcycles or mopeds being an impending danger to him personally, feeling protected by the bodywork of the car. Car drivers *can see* motorcyclists, whom they might otherwise overlook, if they are mentally trained to do so. Thus, better education of drivers is the single most important action to prevent collisions between cars and motorcycles.

FEMA therefore strongly recommends that awareness of motorcycles and moped becomes a compulsory element in initial driver training and licensing. FEMA also recommends Pan-European awareness campaigns, particularly focusing the life-long personal consequences for car drivers being responsible for having killed or injured a motorcyclist.

Also, traffic police must be trained to better understand the course of events in collisions between cars and motorcycles and drivers who are responsible for having killed or injured a motorcyclist must be prosecuted.



## Conspicuity

Motorcyclists are constantly encouraged to enhance their conspicuity by use of daytime running lights and brightly coloured clothing. However, there are contradictory opinions about the effectiveness of DRL and conspicuous clothing:

- Under some circumstances, e.g. when riding on motorways in heavy rain, the positive effects of fluorescent rainsuits and daytime running lights are well known and accepted
- Under other circumstances, e.g. when riding in cities in bright sunshine, brightly coloured clothing and daytime running lights may have a "camouflaging" effect, in that they make the motorcycle and rider "blend" with colourful, bright objects in the traffic environment



Introducing mandatory DRL for all vehicles will obviously reduce the conspicuity-effect of daytime running lights on motorcycles only.

In countries already having introduced mandatory daytime running lights for all vehicles, studies of placing fluorescent tape on specific locations on the bike and using additional motorcycle light arrangements, such as triangular lights, to maintain conspicuity, show little or no effect.

FEMA is concerned that too much focus on DRL and brightly coloured clothing may take attention away from far more important factors preventing collisions between cars and motorcycles, namely increased driver awareness and conscious rider traffic strategies.

## Rider traffic strategies

Motorcyclists cannot passively wait for future effects of awareness campaigns and better driver education. Motorcyclists must themselves take co-responsibility for avoiding collisions with cars.

Experienced riders are less likely to be involved in collisions with cars. This is probably caused by the fact that experienced riders have developed effective strategies for recognizing and avoiding "encounters" with inattentive drivers.

Key factors in a collision-avoidance strategy are:

- Active and conscious lane positioning, maximizing the rider's view on the traffic ahead and making the rider more visible to other road-users, such as car drivers waiting by or approaching a stop sign
- Observing techniques that enable the rider to foresee the actions of others
- Speed adaptation and braking readiness
- Attitude: A mind set on teamwork and cooperation



FEMA recommends that the key factors in a collision-avoidance strategy are emphasized in initial rider training. FEMA also recommends collision-avoidance strategies to be emphasized in educational programmes (booklets, CD Rom, website) supporting the "safety dialogue" within the motorcycling community.