

Potential benefits of active driver assistance systems and the legal context

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A) Introduction

1. What are driver assistance systems?

Ladies and gentlemen, before describing the potential benefits of active driver assistance systems and illustrating the legal context, please let me state from what definition of driver assistance systems we address the issue of legal implications. We simply follow the definition of ADAS offered in the Code of Practice developed in the RESPONSE 3 project.

The definition says: Driver Assistance Systems are supporting the driver in their primary driving task. They inform and warn the driver, provide feedback on driver actions, increase comfort and reduce the workload by actively stabilising or manoeuvring the car.

From this definition it follows that difficult questions have to be answered regarding liability and compensation in case of malfunction or misuse of the systems.

2. Driver assistance systems which are already in use

Today, cruise control is already widely used. Braking and parking assistants are getting more common. All these systems help motorists to drive more safely, and the driver has the option to activate or deactivate them. Systems who assist the driver further are being developed at the moment.

Systems as ABS and ESP also assist the driver in stabilising or manoeuvring the car, and the same questions on liability and compensation in case of malfunction can be posed as can be done with any malfunction of car systems.

3. The different legal implications of non-overridable systems and overridable systems

There are different legal implications with a view to third party liability and claims against the system manufacturers and end users, if the driver is free to decide whether or not to use an assistance system. Other legal implications apply in respect of the users' liability and their recourse against system manufacturers or vehicle makers installing such systems, if drivers cannot override the systems. I will try to shed some light on these implications.

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B) Legal implications

1. Liability

1.1. Fault liability

All EU Member States have fault liability provisions for road accident damage. A motorist causing a road accident will be liable for bodily injury and property damage.

1.1.1. Overridable systems

In connection with systems which the driver can override, the question will be whether the driver's reaction was erroneous and the cause of the accident. Experts must determine whether the damage was caused through a system error or through a driver or user error. Only if it is ascertained that the driver did not commit any error, i.e. the system malfunctioned, is the driver released from fault liability. When using overridable systems, there is always the danger that the driver will rely on their efficacy. This may result in more risky behaviour or greater monotony. If drivers rely on their braking assistant, they may be late to react thus increasing the risk of accidents. This applies particularly where the driver must assume control

because the system is unable to correctly assess a situation.

Drivers will certainly be at fault, if they ignore recalls by the system manufacturer or the vehicle maker installing such systems. Likewise, drivers' fault may apply, if they failed to perform the required maintenance. Negligence may also be implied, if a driver who did not familiarise himself with the system makes a user error.

In the light of the dangers involved in overridable systems, it would at least seem unwise to make the use of such systems mandatory. Also, there should be clear evidence whether such systems would help to significantly reduce the number of accidents, i.e. whether the cost of such systems is in line with their benefits.

1.1.2. Non-overridable systems

With systems the driver cannot override, motorists have no influence on their vehicles' behaviour. If it was the non-overridable system which caused the accident, the driver will not be at fault. However, the driver must provide the relevant proof, which might be difficult in view of technical circumstances.

Non-overridable systems may not be capable to assess a specific situation. Such systems should only intervene when the driver obviously ignores warnings and does nothing to cancel them. Only then it may be safe to assume that the driver will not be able to react to a situation appropriately.

An example is the system-controlled emergency braking of HGVs after warnings for the driver.

Something similar is being used in trains which is called punctual train control by inductive signals. At certain spots, magnetic beacons transmit a signal. In dangerous situations, e.g. when the train approaches a red light with excessive speed, the signal transmitted initiates emergency braking.

The risk assessment of the manufacturer before installing these systems or making them mandatory has to prove that there is an extremely high percentage of reliability, before installing these kind of systems.

1.2. No-fault liability of vehicle owners (strict liability)

In most EU Member States, the operators of machinery are liable for damage caused by the use of the machinery. Usually the owner of a motor vehicle is liable. There are differing provisions for the release from liability for the operational hazards of motor vehicles.

1.2.1. Overridable systems

Assuming that in most countries the owner of a vehicle is liable for any damage caused by the vehicle, he/she will be strictly liable for the damage caused, even if the driver is not at fault. Usually, under such circumstances it is not possible to refer the injured party to the system manufacturer or the vehicle makers installing such systems. The injured party will claim any damages against the vehicle owner or the motor insurer.

1.2.2. Non-overridable systems

In relation to non-overridable systems, an exclusion of liability might be considered. Neither the driver nor the owner has any influence over the system. Situations where an accident occurs because external factors incorrectly informed the system (e.g. if a traffic management system feeds the wrong instructions to the in-vehicle system), or because the system's reaction is faulty, require legal provisions to exclude owner liability. As far as we can tell, such provisions do not exist today. Under the principles of strict liability, the vehicle owner or the motor insurer are also liable for damage caused by the errors of a non-overridable system.

2. Implications under insurance law

Most Member States have some kind of merit pricing system in the area of motor vehicle insurance. If the motor insurance is obliged to pay damages after an accident, the insured will be charged a higher premium in the year following the accident. The various merit pricing schemes have different implications. But in the light of the above, a vehicle owner will have to pay higher premiums if his/her insurance paid damages even if the owner/driver was not at fault.

3. Possible types of damage

For damage caused by DAS failure, the vehicle keeper will incur losses both due to higher premiums and the repair of the vehicle, unless he/she has own damage insurance cover. If such cover does exist, the deductible may be the only loss. If the driver was injured, there may be hospital bills, damages for pain and suffering, loss of earnings etc.

4. Criminal responsibility

A motorist causing personal injury with a vehicle equipped with an overridable system may face criminal charges for inflicting bodily injury or worse. This responsibility does not apply, if the driver is not at fault. This would be the case where the driver had no control over the situation because the decision when and how hard to brake was the system's alone. Also, it must be clarified to what extent the system's operation was faulty. Again, technical proof is difficult to substantiate, and the driver might be required to provide evidence that no driver error was involved.

5. User recourse in the event of faulty system operation

5.1. Against system manufacturers

Directive 85/374/EEC covers liability for defective products and provides that manufacturers are liable without fault. The person who has suffered damage due to a defective product (e.g. the owner/keeper of a vehicle) is required to prove the damage, the defect and the causal relationship between the two. The vehicle insurer may have paid the claim of the party injured in the accident. But the vehicle owner must cover own losses, and may have to pay repair of the own vehicle plus higher insurance premiums. The manufacturer will be released from liability, if he can prove that certain circumstances expressly mentioned in the Directive apply.

The Directive provides certain “options” to the Member States in derogation from the community rules. For instance, they may legislate that the producer shall not be released from liability, even if he proves that the state of scientific and technical knowledge at the time when he put the product into circulation prevented him from discovering a defect.

This Directive was implemented and is being applied in the Member States. While Finland and Luxemburg have exercised the above option, in all other Member States, the users of driver assistance systems face the possibility of manufacturers pleading their release from liability upon proof of their technical and scientific inability to discover a defect at the time they put the product on the market.

Furthermore, the Directive and the implementing national legislation in the Member States require that the injured party prove the damage, the defect and the causal relationship between the two. This burden of proof is a serious challenge to consumers. They may not have the means, legal and otherwise, to conduct the necessary inquiries and they may not have access to vital information. It would help to assume that manufacturers are at fault, i.e. require them to prove that their system is not defective. Manufacturers marketing products involving an operating hazard should be under the obligation to prove that they did everything that could have helped prevent damage. Under the provisions of the Directive, a product is defective when it does not provide the safety

which a person is entitled to expect. However, courts in the Member States have different ways to interpret the concept of “defectiveness”. In Austria and Portugal, fault is assumed where a breach of contractual obligations is involved. In order to be released from liability, the manufacturer is required to prove that there is no defect. In the Netherlands and Ireland, the courts automatically assume the manufacturer’s fault, since there was a defect. The situation is similar in Denmark. The Spanish Supreme Court has held that the claimant is required merely to prove the damage and relate it causally to the manufacturer.

Today, the drivers/owners/keepers of vehicles are facing different situations depending on the country in which they make their claim. The only remedy is a more specific definition and harmonisation of the concept of “defectiveness”.

5.2. Against vehicle manufacturers

Usually the manufacturers of driver assistance systems and of vehicles are not the same. The latter equips the vehicle with a system manufactured by someone else. Under the provisions of the Product Liability Directive, the vehicle manufacturer is also liable.

Again, the question is: who has to prove the system defect?

The driver/owner of a vehicle is in the same difficult position, where the claim is made directly against the system manufacturer.

If referred to the system manufacturer, the user has to deal with a party he may not be familiar with. The difficulties may increase, if the manufacturer resides in another EU Member State or even outside the EU. The user should therefore have a direct right of action against the vehicle manufacturer.

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C) Conclusions

1. Driver assistance systems may help improve road safety

Driver assistance systems are meant to provide useful assistance to motorists in handling their vehicles. First and foremost, they improve road safety.

A further effect is driver convenience. Indirectly, DAS may also help improve the traffic flow and in that way also reduce the environmental impact. However, driver assistance system should not “take over” and decide how the vehicle should behave in a specific situation, leaving the driver with no influence over this decision. Only overridable systems allow the driver to intervene. Non-overridable systems should kick in only if the driver is objectively unable to handle a situation. Another factor to consider is the slower reaction of motorists when they rely on their driver assistance systems.

We welcome emergency braking assistants in HGVs. They may prevent or considerably mitigate rear end collisions. Visual or acoustic warnings and the initiation of partial braking when the driver does not react to the alert may be very helpful in preventing HGV collisions or at least in mitigating their effects.

Based on the positive results of electronically controlled traffic management systems, such systems should be used more widely. They help both drivers who do not use and drivers who use driver assistance systems. This would help cut the number of accidents and improve traffic flow.

2. In the event of an accident the owner/keeper of a vehicle is liable without fault for any damage caused and the driver is liable if at fault

When using overridable systems, the driver is usually liable if at fault. The owner/keeper of the vehicle will be liable without fault. If the driver cannot override the assistance system, in most EU countries the owner/keeper would still be liable whereas the driver would not be liable since he has no fault. Motor insurance will cover the loss of the other party involved in an

accident, for which the owner/keeper may have to pay higher premiums. Often, when seeking recourse against the car makers or system manufacturers, the owners/keepers – and where they sustain bodily injuries – the drivers of vehicles causing an accident may not obtain financial compensation. Where the accident could have been caused by a defective driver assistance system, today the user is required to prove that the system was defective or that it was not properly installed.

A simpler rule covering the user's liability for damage caused by a defective system would increase the acceptance of using such systems.

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D) Propositions

Based on my arguments for and against driver assistance systems and the possible consequences of the incorrect use or the use of defective non-overridable systems, I would like to make the following demands on behalf of the FIA:

1. In principle, FIA supports innovation and progress in the area of road safety through the development of driver assistance systems.

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2. Making any driver assistance systems mandatory for the private user should have a clear and verifiable positive impact on the number of accidents, road fatalities and the severity of injuries. The cost/benefit calculation should include both the cost of such systems and the environmental impact of, for instance, higher energy consumption. Vehicle owners must be able to decide whether or not to have their vehicles equipped with a system that will or may at least indirectly impact its use.

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3. The driver must have the option to decide how to react to a specific situation. Drivers should be free to act in compliance with the information received from their systems. The decision whether to brake or accelerate in order to avoid certain situations should be the drivers'.

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4. The system must only "override" the driver if the latter is unable to intervene (e.g. loss of consciousness) and this is evident from the driver's failure to respond to certain information provided by the system. Automatic instant emergency braking initiated by a braking assistant in a speeding situation could impact vehicle handling and lead to the wrong reactions.

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5. With a view to enhancing the acceptance of driver assistance systems, the settlement of claims based on a system defect should be facilitated. Payments by vehicle owners to cover third parties losses should be compensated.

It would be helpful if the party suffering damage in an accident could take direct action against the vehicle maker.

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6. Electronic traffic management systems should be preferred over non-overridable driver assistance systems. Field tests have shown that the electronic display of a traffic-related speed limit change helps to improve the traffic flow and prevent accidents.