

RoSPA Response to

“Pathway to Driverless Cars:

Proposals to Support Advanced Driver Assistance Systems and Automated Vehicle Technologies”

A Department for Transport and Centre for
Connected & Autonomous Vehicles’ Consultation
Paper



Response to the “Pathway to Driverless Cars” Consultation Paper

Introduction

This is RoSPA’s response to the Department for Transport and Centre for Connected & Autonomous Vehicles’ consultation paper, “Pathway to Driverless Cars: Proposals to Support Advanced Driver Assistance Systems and Automated Vehicle Technologies”. It has been produced following consultation with RoSPA’s National Road Safety Committee.

Automated vehicle technology is developing rapidly and will profoundly change the way we drive, ultimately to the point where in fully automated vehicles the driver will be just a passenger. This technology offers enormous potential to reduce crashes and casualties, enable better use of road space, and improve mobility for people who are unable to drive conventional cars.

It is not yet clear when people will be able to purchase or use a truly driverless car, but estimates are that it could be any time from the mid-2020s onwards. However, some forms of autonomous vehicles, such as cars which can be parked by remote control, or pilot themselves with human oversight on high speed roads, will be available for sale in the next two to four years.

The Government has already conducted a regulatory review to establish that autonomous vehicles can be tested on any road in the UK, and published a Code of Practice to help testers understand how to comply with the law. It is also helping to fund research, development, demonstration, and deployment activities.

The next step is to start tackling UK regulatory issues that could prevent the adoption of vehicles with Advanced Driver Assistance Systems (ADAS) and Automated Vehicle Technology (AVT) as they come to market. There will be a transitional period with a mixture of conventional cars, cars with increasingly sophisticated ADAS and ultimately, fully automated vehicles sharing the roads.

Regulatory Framework

Therefore, the Government propose to implement a rolling programme of regulatory reform to facilitate the use of ADAS and AVT, starting with the following technologies that are likely to come to the market within the next two to four years:

- Motorway assist systems for travel on high speed roads (ie motorways and major trunk roads)
- Remote control parking.
- Trials of vehicle platooning.

The Government is seeking views on proposals to amend regulations for driving in three areas:

Insurance: to ensure insurance products will be available for automated vehicles;

Regulation: to make provisions for the construction and use of near to market technologies

Highway Code: to provide guidance for drivers about the safe and appropriate use of new ADAS technologies, as well as specific advice about separation distances for vehicles driving as platoons.



Response to the "Pathway to Driverless Cars" Consultation Paper

Question 1A

Do you agree with the proposal to review the regulatory framework to enable the use of advanced driver assistance systems and advanced vehicle technologies as they come to market in the UK?

RoSPA Response

Yes, RoSPA agrees with this proposal. Although autonomous vehicle technology is developing rapidly, it is still too early to predict exactly how the technology will develop, nor the exact timeframe for the introduction of aspects of this technology, let alone of truly driverless cars. However, it is clear that vehicles with some types of advanced driver assistance systems will become available for the public to buy and use sooner than other types, and much sooner than fully autonomous vehicles.

It is also likely that unforeseen issues will arise as this technology is developed and tested in the real world. Therefore, it is sensible to keep the UK's regulatory framework under review as particular aspects of this technology start to get close to being made available on the UK market.

It is important to consider the implications of the regulatory reform on the use of UK vehicles overseas, and to liaise with other countries' on their approach to these issues, as presumably in due course these vehicles will be used by people when working or holidaying overseas.

Question 1B

Do you agree that we should follow a rolling programme of regulatory reviews?

RoSPA Response

Yes, RoSPA agrees with this proposal. For the reasons outlined in our response to question 1A, it is sensible to adopt a gradual programme of regulatory reform as particular aspects of this technology become near to market in the UK.

Question 1C

In the first wave of regulatory change, with the exception of insurance, should we only consider those advanced driver assistance systems or automated vehicle technologies that are likely to come to the UK market in the next 2-4 years?

RoSPA Response

RoSPA believes that it makes sense to start the regulatory reform programme with those advanced driver assistance systems or automated vehicle technologies that are likely to come to the UK market in the next 2-4 years. The Government have identified Motorway Assist Systems for high speed roads (ie motorways and major trunk roads), remote control parking and vehicle platooning as the first systems. If other systems develop more quickly than currently anticipated, they should be added to the first wave, or soon after, as necessary.

Question 1D

Are you aware of any upcoming advanced driver assistance systems or automated vehicle technologies which this document does not cover?

RoSPA Response

RoSPA is not aware of any other systems or technologies likely to come to market in the next two to four years.



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Insurance

Vehicles that can drive themselves for part or all of a journey without human intervention raise issues about motor vehicle insurance and liability. Under the current motor vehicle insurance system, motorists must hold compulsory third party insurance to compensate victims of any collision, regardless of who is at fault. When victims are injured by uninsured or untraced drivers, the Motor Insurers' Bureau (MIB) steps in as the insurer of last resort. The system is designed to ensure as far as possible that victims of road traffic accidents are compensated fairly and quickly.

Once all vehicles are fully automated, and require no human input at all, liability can be placed on the manufacturer (ie product liability) who would then deal with claims arising from a collision. However, this is still many years away, and the transitional period in which both conventional and automated vehicles share the roads together is more difficult. Determining liability in a collision where the driver has activated the advanced vehicle technology and has disengaged from the driving task, could be complex and time consuming. The fault could rest with the driver (eg, if they have failed to retake control when the system exceeds its performance limits), or with the manufacturer (eg, product failure, which would be covered by product liability).

Therefore, the Government proposes to make the following changes:

- Extend compulsory insurance requirements for automated vehicles so the owner must also ensure that there is an insurance policy in place that covers the manufacturers' and any other entities' product liability.
- Require this additional compulsory product liability insurance for automated vehicles to also cover injuries to the 'not at fault' automated vehicle driver as well as passengers and third parties.
- Develop a system to classify an automated vehicle so that manufacturers, insurers and consumers know which vehicles this particular insurance requirement applies to.

Question 2A

Do you agree with the proposition to amend road vehicle compulsory insurance primary legislation in Part 6 of the Road Traffic Act 1988 to include product liability for automated vehicles?

RoSPA Response

RoSPA agrees with the proposed changes. It is important to adapt the UK's legal Insurance framework in time for the introduction of the first vehicles with this technology so that victims of a collision involving a vehicle that is operating in an automated mode and in which the driver has (either correctly or mistakenly) disengaged from the driving task, are no worse off in the level of insurance and compensation they receive than they would be if hit by a conventional vehicle.

As well as ensuring fairness to victims, these changes will support the introduction of automated vehicles by helping to reassure those who wish to buy and use such vehicles, as well as the wider public. Without this clarity, customer confusion about insurance cover could reduce the sale and use of automated vehicles.

RoSPA agrees that the existing insurer of last resort role for the MIB should be extended to cover the new mandatory product liability insurance requirements for automated vehicles and the Uninsured Driver's Agreement and Untraced Drivers Agreement should be updated accordingly. This would ensure that victims would be put in a no worse position if they were injured by an uninsured or untraced automated vehicle than if they were hit by a conventional vehicle.



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Question 2B

What, if any, other changes to the insurance framework should be considered to support use of AVT? Why?

RoSPA Response

RoSPA has no further suggested changes to make at this stage.

Question 2C

If you are an insurer, vehicle manufacturer or other organisation directly affected by these changes, what costs do you estimate your organisation will incur as a direct result of these changes?

RoSPA Response

RoSPA does not anticipate incurring any additional costs as a result of these changes.

Question 2D

Do you anticipate the cost of insurance products for vehicles with AVT to be higher than for conventional vehicles? By how much and why?

RoSPA Response

RoSPA is not in a position to answer this question.

Question 2E

Do you anticipate the introduction of vehicles with AVT to increase insurance premiums for conventional vehicles?

RoSPA Response

RoSPA is not in a position to answer this question.

Question 2F

What do you estimate the costs will be to insurers, vehicle manufacturers, or other parties of providing product liability cover for automated vehicles, and why?

RoSPA Response

RoSPA is not in a position to answer this question.

Question 2G

Do you anticipate that this cost will be passed on to the consumer? By how much and why?

RoSPA Response

If costs for insurance providers increase, it seems likely that they will pass this additional cost on to the consumer.



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Failure to maintain automated vehicle technology, inappropriate use, and circumventing automated vehicle technology

Question 2H

Do you agree that where a driver attempts to circumvent the automated vehicle technology, or fails to maintain the automated vehicle technology, the insurer should be able to exclude liability to the driver but not to any third parties who are injured as a result?

RoSPA Response

Yes, RoSPA agrees that insurers should not be able to avoid paying damages to a third party victim where an automated vehicle owner or a named driver on the policy fails to properly maintain the vehicle or attempts to use it inappropriately. It would be wrong to punish third parties because the vehicle owner or driver has misused the technology, just as it is wrong to exclude liability because a driver exceeds the drink drive limit.

However, we agree that insurers should be able to exclude liability for the driver in these circumstances, but only when the owner or driver was in a position to use the technology as it was designed to be use. In essence, the advent of autonomous vehicles should not result in third party victims being worse off in terms of damages and compensation than they are currently.

The regulations governing MOTs also need to be updated to cover automated vehicle technology, and may need to include a check of whether the latest software updates have been downloaded and installed in the vehicle.

Third Party Hacking

Question 2I

Do you agree that in the event of 3rd party hacking of an automated vehicle, an insurer should not be able to exclude liability, as set out in the Consultation Document?

RoSPA Response

RoSPA agrees that any person injured in an accident caused by someone hacking an automated vehicle should be treated, for insurance purposes, in the same way as an accident caused by a stolen vehicle. This means that the insurer should compensate the victim(s).

If the owner of an automated vehicle fails to follow all reasonable anti-hacking security measures, such as software updates, other victims should still be compensated. In some cases, where the vehicle owner has deliberately not installed such security measures, it may be reasonable for insurer to recover their costs from the vehicle owner. The regulatory framework also needs to ensure that manufacturers meet minimum security standards to prevent hacking and to ensure their software downloads do not breach data protection laws.

Where the hacker can be traced, the insurer should be allowed to seek to recover the damages from them. They should also be able to recover damages from the vehicle manufacturer if they failed to incorporate sufficient and appropriate anti-hacking security features. It should, of course, be a serious criminal offence to hack into an automated vehicle, especially where this causes a crash. Where such hacking results in serious or fatal injury, the penalties should be no less stringent than those currently available for causing death or serious injury by dangerous driving.



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Product liability and automated vehicles

The Consumer Protection Act 1987 only applies to property damage where the damaged property is owned by private individuals for personal use, not where it is owned by companies. Where a company's property is damaged by a defective product they have to prove that the producer was negligent, not just that there was a defect in the product. The 'state of the art' defence of the Consumer Protection Act 1987 provides a defence to product liability if the state of scientific and technical knowledge when the product was manufactured meant that the manufacturer could not have been expected to discover the defect.

Question 2J

Do you agree that the product liability and insurance requirements for automated vehicles should:

- follow the normal rules on product liability with different rules depending on whether the injured party was an individual or a company?
- be limited by the 'state of the art' defence, as set out in the Consultation Document?

RoSPA Response

RoSPA agrees that the product liability and insurance requirements for automated vehicles should follow the normal rules on product liability with different rules depending on whether the injured party was an individual or a company. Unlike other products covered by the Consumer Protection Act, driverless cars must have mandatory third party insurance.

Question 2K

Alternatively, should we extend insurance/liability rules specifically for automated vehicles?

RoSPA Response

RoSPA believes that this would require a much wider, separate discussion. Businesses are impacted by faulty goods, such as fires from electrical appliances, all the time, so why make such a change (not requiring businesses to prove negligence but just a faulty product) for driverless cars and not other types of product.

Product Sector Vehicles

Currently, some vehicles used by the crown and public sector bodies are exempt from the requirement to have an insurance policy because the organisations 'self-insure'. This results in overall lower costs to the public purse. The Government intends to apply the same exemptions to the new automated vehicle product liability insurance obligation.

Question 2L

Do you agree with the proposal that, with respect to automated vehicles, the public sector can continue to self-insure but, where they choose to self-insure, they would then be required to step into the insurer's position in respect of product liability damages?

RoSPA Response

RoSPA has no objection to this, provided that a victim is no worse off in terms of the level of insurance or the speed with which a claim is settled, if injured by a public sector owned automated vehicle that is self-insured than by a privately owned automated vehicle.



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An alternative option: a first party insurance model

It has been suggested that the existing motor insurance model could be replaced with a first party insurance model that might enable claims to be handled quickly and efficiently. Under this model, the victim of a collision would claim directly from the insurers of the vehicle, regardless of liability. Liability would be determined at a later point, and the party 'at fault' would then meet the cost of the claim. This would represent a significant change to the current insurance practice and it is not clear whether determining liability where an automated vehicle is involved will be more complex and/or take longer than it with conventional vehicles.

Question 2M

Do you agree that an alternative first party model option would not be proportionate while automated vehicles represent a small proportion of the fleet?

RoSPA Response

There does not seem to be sufficient evidence to judge whether the first part insurance model would be a better system for automated cars than the current one. While automated vehicles comprise a small proportion of the vehicle fleet RoSPA believes it would be premature to change to this mode. However, this could be reviewed in the future when there is a much higher level of market penetration of automated vehicles.

Question 2N

What do you anticipate the cost of implementing a first party insurance model would be?

RoSPA Response

RoSPA is not in a position to answer this question.

Next Steps

Question 2O

Do you have data to support your answers on insurance for automated vehicles?

RoSPA Response

RoSPA is not in a position to answer this question.



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Highway Code

It is essential that the Highway Code reflects legislative changes and any implications of new technologies for drivers, their behaviour and other road users. This advice needs updating to explain Advanced Driver Assistance Systems, motorway assist and remote control parking, and how they should be used appropriately.

Rule 50 of the Highway Code states:

"There is a danger of driver distraction being caused by in-vehicle systems such as satellite navigation systems, congestion warning systems, PCs, multi-media, etc. You MUST exercise proper control of your vehicle at all times. Do not rely on driver assistance systems such as cruise control or lane departure warnings. They are available to assist but you should not reduce your concentration levels. Do not be distracted by maps or screen-based information (such as navigation or vehicle management systems) while driving or riding. If necessary find a safe place to stop."

Rule 160 of the Highway Code states:

"Once moving, you should drive with both hands on the wheel where possible. This will help you to remain in full control of the vehicle at all times"

Question 3A

What are your views on amending the text of the Highway Code in a way that would clarify rule:

- **150, related to use of driver assistance systems and distraction?**
- **160, relating to driving with both hands on the wheel?**

RoSPA Response

RoSPA believes that it is very important to update the Highway Code's advice on Advanced Driver Assistance Systems and that it should explain the purpose of new systems, such as motorway assist and remote parking, how they should be used by the driver and the risks to avoid.

Rule 50 currently does not cover just ADAS systems, but also refers to PCs and multi-media. It would be better to separate these issues into different rules covering distraction and advice on using Advanced Driver Assistance Systems. It seems likely that the amount of text for ADAS will need a whole section of the Highway Code, not just a single rule or two.

Although Rule 160 relating to driving with both hands on the wheel already has the caveat "where possible", RoSPA does not think it would be clear enough simply to rely on this caveat. We believe it would be more helpful to specify when it is possible to drive without both hands on the steering wheel, such as when parking a vehicle using its remote control or automated parking features.

Even if an ADAS system allows the driver to release their hold on the steering wheel for short periods, while remaining alert and ready and able to take control of the vehicle, the Highway Code could still advise drivers to keep their hands on the steering wheel, and not to undertake non-driving tasks that could distract them from being able to properly take control of the vehicle.



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Enabling Platooning

Rule 126 of the Highway Code states:

"You must drive at a speed that will allow you to stop well within the distance you can see to be clear. You should allow at least a two-second gap between you and the vehicle in front on roads carrying faster moving traffic and in tunnels where visibility is reduced."

It is proposed to relax this rule for vehicles that are fitted with technology that automatically maintains a safe headway, equipped with an active V2V communication system and are part of a platoon of similarly equipped vehicles.

Question 3B

Do you agree with the proposition to allow platooning by relaxing Highway Code rule 126 (which recommends a 2 second gap between vehicles)?

RoSPA Response

A vehicle's stopping distance is a combination of 'thinking distance' and 'braking distance'. Platooning technology will allow vehicles to brake simultaneously with the vehicle in front, and so reduce (or even eliminate) the thinking distance. RoSPA agrees that this provides an opportunity to reduce the separation distance required between these vehicles.

However, it must be absolutely clear that this only applies to vehicles with this technology and only when they are operating in a 'platoon'. Great care should be taken to avoid creating a perception that the normal following distances for other vehicles is being changed. Therefore, it would be better to have a separate rule for platooning, rather than just amend rule 126 to incorporate it.

Question 3C

What, if any, other restrictions should be considered regarding use of platooning technologies, and why?

RoSPA Response

The Highway Code should explain how vehicle platoons will start and finish, and whether a vehicle can join or leave a platoon during the journey, or only at the start and end of the journey.

It will also need to offer advice to other road users on how they should behave towards platoons, and how they should expect the vehicles in the platoons to behave. For example, specific advice on overtaking a platoon of vehicles will be needed, along with advice on entering and leaving the motorway if there is platoon of HGVs in lane one.



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Freeing the driver to make use of the automated vehicle

At present the Government is not proposing to relax any of the existing specific or implied driver distraction restrictions, such as the prohibitions on using hand-held mobile phones, watching TV or eating and drinking at the wheel. This will be considered when vehicles no longer need the driver to remain alert and in-the-loop. The Government will monitor the development of technology in this field, and respond accordingly as and when systems come to the market.

Question 3D

Do you agree with the proposition that specific and implied driver distraction restrictions are not relaxed at this time?

RoSPA Response

RoSPA strongly agrees that it is far too early to consider relaxing any of the existing driver distraction restrictions, such as not using hand-held mobile phones, watching TV or eating and drinking at the wheel. This should only be considered when fully automated vehicles in which the driver is just another passenger have been developed and introduced.

Construction and Use Regulations

Remote control parking

The Government proposes to clarify the following regulations to make it clearer how drivers can safely and legally use these systems.

Regulation 104 requires that a driver must always be in a position to have full control of the vehicle and full view of the road and traffic ahead. The Government proposes to add a statement that a driver meets this requirement even if he is not in the driving seat, provided he has the ability to control the vehicle through a hand-held device. This would cater both for remote parking via a hand-held device, as well as very large vehicles or mobile transporters that are operated by remote control to aid manoeuvrability.

Regulation 107 requires that a driver must switch off the engine when not attending a vehicle. The Government proposes to add a statement that an individual, though not in the driving seat, is deemed to be attending the vehicle when they are driving it, or are about to drive it, using a hand-held device. They would also welcome comments on whether this regulation should be relaxed to allow drivers to use remote devices to turn on the engine on a cold morning a few minutes prior to driving off, in order to defrost the windows of the vehicle.

Regulation 110 prohibits the use of a hand-held mobile communications device (such as a phone, tablet etc.) while driving. The Government proposes to clarify this regulation for the purposes of remote control parking by adding a statement that this prohibition does not apply to remotely controlled vehicles, where the driver is outside the vehicle and has the ability to control the vehicle through a hand-held device.



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Question 3E

Do you agree with the proposed approach to enable remote control parking by clarifying:

- **Regulation 104 (the driver should be in a position to be able to control the vehicle)?**
- **Regulation 107 (switching off the engine when the vehicle is not attended)?**
- **Regulation 110 (not using hand-held mobile phones while driving)?**

RoSPA Response

RoSPA agrees with the proposed amendment to Regulation 104 to add a statement that a driver is in a position to have full control of the vehicle and full view of the road and traffic ahead even if he is not in the driving seat, provided he has the ability to control the vehicle through a hand-held device. However, we are concerned that the phrase "the ability to control the vehicle through a hand-held device" is too vague and open to interpretation. The wording should make it clear that this only applies to remote control parking devices produced by the vehicle manufacturer and specifically designed for this purpose. We suggest that use of remote control devices to aid the manoeuvrability of very large vehicles or mobile transporters be dealt with by a separate regulation that cannot be applied to cars or other vehicles it is not intended to cover.

RoSPA agrees with the proposed amendment to Regulation 107 to add a statement that an individual who is not in the driving seat is deemed to be attending the vehicle provided that they are driving it, or are about to drive it, using a hand-held device. However, we suggest that the terms "driving" or "about to drive" in this regulation be defined to only include parking the vehicle, and not normal driving.

We do not believe that this regulation should be relaxed to allow drivers to use remote devices to turn on the engine on a cold morning before driving off to defrost the windows of the vehicle. This would be a matter of convenience not safety, and could perhaps increase the risk of theft while there is no one in the vehicle – the driver is likely to wait indoors while the windows defrost.

RoSPA agrees with the proposed amendment to Regulation 110 to add a statement that that this prohibition does not apply to remotely controlled vehicles where the driver is outside the vehicle and is controlling the vehicle with a hand-held device. However, the wording should make it clear that this only applies to remote control parking devices produced by the vehicle manufacturer and specifically designed for this purpose. We suggest that use of remote control devices to aid the manoeuvrability of very large vehicles or mobile transporters be dealt with by a separate regulation that cannot be applied to cars or other vehicles it is not intended to cover.

Motorway Assist

Regulation 109 says the driver must not be in a position to see (directly or by reflection) a television set or similar screen showing moving images, in order to prevent driver distraction. This prohibits screens that are not showing information related to the driving task. Four specific criteria are set out which permit screens which are, for example, displaying maps for satellite navigation systems, showing oil and fuel levels or showing the view from cameras mounted on the vehicle.

The Government is seeking comments on whether any other information should be permitted to be displayed. In due course, when vehicles achieve a high level of automation it may be possible to relax this regulation further. However, we do not believe that a relaxation would not currently be advisable.



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Question 3F

What are your views on amending Regulation 109 to allow drivers to view TV/display screens displaying information that is not related to the driving task, while driving?

RoSPA Response

RoSPA believes that it is far too early to consider amending Regulation 109 to allow drivers to view TV/display screens displaying information that is not related to the driving task, while driving. This should only be considered when fully automated vehicles have been developed and introduced.

The benefits and impacts of ADAS

Question 3G

Do you have any data or evidence of the safety benefits of these advanced driver assistance systems?

RoSPA Response

RoSPA has no data or evidence that is not already in the public domain.

Question 3H

Are there any other, non-safety, impacts (including costs) of ADAS, which we have not covered in this consultation document?

RoSPA Response

RoSPA has no further suggestions to make.

Question 3I

Please supply any data to support your answers.

RoSPA Response

RoSPA is not in a position to answer this question.

RoSPA thanks the Department for Transport and the Centre for Connected and Autonomous Vehicles for the opportunity to comment on the proposals. We have no objection to our response being reproduced or attributed.

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