

General comment on use of the word accident

Brake would urge caution around use of the word “accident” which implies no blame; and seek use instead of the word “collision” or “crash”. An “incident” can be used to define a crash or a near-miss. Both are important for causation prevention.

Consultation Question 1: Do you agree that:

1) All vehicles which "drive themselves" within the meaning of the Automated and Electric Vehicles Act 2018 should have a user-in-charge in a position to operate the controls, unless the vehicle is specifically authorised as able to function safely without one?

Agree

Disagree

Other

Agree

There are definitional issues here that need treating with care, in relation to meaning a vehicle at SAE Level 4 or above; and the meaning of ‘user-in-charge’ in the context of their responsibilities.

The Law Commission definition is noted of ‘user in charge’ as to “not be a driver when the automated driving system is engaged. They may undertake secondary activities and would not be responsible for any driving offences. However, they must be qualified and fit to drive. The main role of the user-in-charge would be to take over in planned circumstances or after the vehicle has achieved a minimal risk condition and come to a stop. Unlike the SAE category of “fallback-ready user”, they would not be required to take over a moving vehicle at short notice to guarantee road safety.”

With this definition in mind, we comment that the user-in-charge, and what precisely they are in charge of, is very much dependent on the vehicle’s design and the purpose of a user-in-charge within that design parameter; i.e. the controls they have access to and what therefore they are able to do, and how quickly they would be expected to do it and in what circumstances. This could mean a vehicle that still has pedals and a steering wheel, or a vehicle that has an emergency stop button, or a vehicle that can only be controlled remotely. Being in a “position to operate the controls” correctly and within the appropriate time frame is likely to mean different things in different types of vehicle. Any exemptions to the rule that there should be a user-in-charge must be made clear and not compromise safety.

2) The user-in-charge:

(a) must be qualified and fit to drive;

Agree and the definition of qualified and fit to drive will be entirely dependent on the duties of the user-in-charge, which, as already said, are likely to be variable.

(b) would not be a driver for purposes of civil and criminal law while the automated driving system is engaged; but

Agree

(c) would assume the responsibilities of a driver after confirming that they are taking over the controls, subject to the exception in (3) below?

Agree

Disagree

Other

Agree, and in particular note the requirement for confirmation of taking over control; and note the importance of this process being designed robustly, to identify and eliminate risk from this process of hand over.

3) If the user-in-charge takes control to mitigate a risk of accident caused by the automated driving system, the vehicle should still be considered to be driving itself if the user-in-charge fails to prevent the accident.

Agree

Disagree

Other

Other. A user-in-charge who is given the ability to take control of a level 4 or 5 vehicle in ADS mode to 'mitigate a risk of accident' may a) misinterpret the situation, and b) take remedial action that they perceive will help, but which causes harm. How the system is designed is critical to prevention of such a situation; there should be no expectation for a user-in-charge to take control "suddenly" when the ADS is operating.

Systems must be designed with data recording facilities that precisely describe what happened and in what order a) so future near-misses and collisions can be prevented; and b) liability can be established. This emphasises again the importance of 2c) above being a robust process.

Consultation Question 2: We seek views on whether the label "user-in-charge" conveys its intended meaning.

No. It can be perceived that the label means "person with responsibility"; however it conveys that the person is "in charge" when in a situation of ADS operation, they are not. There should be different terms for different types of vehicle/driver relationships. For example, if a vehicle can be in ADS mode and then is expected to be driven by a person using a steering wheel and pedals, the label should be simply "driver". Other terms, that are more specific, could be assigned to other roles, accordingly. Having a variety of words for different roles will help when defining the requisite training and qualifications for those different types of roles.

Consultation Question 3: We seek views on whether it should be a criminal offence for a user-in-charge who is subjectively aware of a risk of serious injury to fail to take reasonable steps to avert that risk.

Yes, it should be a criminal offence

No, it should not be a criminal offence

Other

Other

As a point of semantics, it is presumed the question also means risk of death.

If, as defined in the consultation, the 'user-in-charge' is not a driver and 'not responsible' during the operation of ADS, then they can have no obligation to be aware of risk to life and take steps to preserve life.

If, on the other hand, the 'user-in-charge' is a remote operator who is trained to monitor, then the obligations may be expected to be different and greater.

As mentioned in 1) 3) above, systems must be designed with data recording facilities that precisely describe what happened and in what order a) so future near-misses and collisions can be prevented; and b) liability can be established commensurate with role.

Consultation Question 4: We seek views on how automated driving systems can operate safely and effectively in the absence of a user-in-charge.

The question carries an inference that without a user-in-charge automation is not safe, but it is likely this is not the intention of the question. Taking the question to mean it refers to issues around external influence in the absence of a human in the vehicle acting as user-in-charge - for example, whether an enforcement authority could control an automated vehicle in certain circumstances - we would agree that this needs consideration.

Consultation Question 5: Do you agree that powers should be made available to approve automated vehicles as able to operate without a user-in-charge?

Agree

Disagree

Other

Agree – within strict criteria with regard to safe and healthy mobility.

Consultation Question 6: Under what circumstances should a driver be permitted to undertake secondary activities when an automated driving system is engaged?

This question uses the term ‘driver’ rather than ‘user in charge’. Reverting to the Law Commission’s definition of ‘user in charge’, in such a situation where the ADS is engaged, there is no ‘driver’.

If the vehicle in question does, however, utilise a ‘driver’ at some point (see answer above regarding different definitions for different types of vehicles and their ‘user in charge’) then that driver should be permitted to engage in secondary activities when the ADS is engaged, but there should be rules regarding the type of activities they can engage in. This will depend on circumstance. For example, sleeping would not be a safe activity if the nature of the vehicle meant that the driver was expected to engage in a control hand over to them in a few minutes.

Consultation Question 7: Conditionally automated driving systems require a human driver to act as a fallback when the automated driving system is engaged. If such systems are authorised at an international level:

(1) should the fallback be permitted to undertake other activities?

Yes

No

Other

No, if the question is applying to SAE Level 3. The only tasks that should be allowable should be activities that enable the driver to monitor what is happening. In such a vehicle, the driver needs to be ready to re-engage at short notice. There are legitimate concerns, relating to the human condition, around this level of development of ADS that need addressing through research and development with safety paramount.

(2) if so, what should those activities be?

See above.

Chapter 4: Regulating vehicle standards pre-placement

Consultation Question 8: Do you agree that:

(1) a new safety assurance scheme should be established to authorise automated driving systems which are installed:

(a) as modifications to registered vehicles; or

(b) in vehicles manufactured in limited numbers (a "small series")?

Agree

Disagree

Other

Agree

An independent safety assurance scheme or agency to authorise ADS is important.

Modifications are likely to result in complications, affecting OE and compromising type approval.

Small series vehicles are likely to be variable in their nature.

Methodologies to manage such a scheme or agency effectively must be considered. For example, a central agency "signing off" on all decisions; or a central agency accrediting other agencies to complete this sign off. Liability of those giving assurance must also be addressed.

Consideration must also be given to how vehicles are then tested periodically (MOT) and, again, who does this and their liability.

2) unauthorised automated driving systems should be prohibited?

Agree

Disagree

Other

Agree – Unauthorised automated driving systems should be prohibited to be sold and used, with the exception of vehicle prototypes undertaking controlled testing for the purposes of developmental research and authorisation. Their testing should be authorised within conditions that maximise safety to both occupants and people outside the vehicle, in other vehicles and people getting around in active ways (foot, bicycle).

(3) the safety assurance agency should also have powers to make special vehicle orders for highly automated vehicles, so as to authorise design changes which would otherwise breach construction and use regulations?

Agree

Disagree

Other

Agree, with the caveat that such design changes must not lessen safety. In other words, the automation or other aspects of design meet a safety standard that would have been met had C&U regulations been applied.

Consultation Question 9: Do you agree that every automated driving system (ADS) should be backed by an entity (ADSE) which takes responsibility for the safety of the system?

Agree

Disagree

Other

Agree

Consultation Question 10: We seek views on how far should a new safety assurance system be based on accrediting the developers' own systems, and how far should it involve third party testing.

It is the firm view of Brake that an ADS safety assurance system must be: independent (third party); transparent; evidence-led; and rigorous in application. While reflecting the development of international regulations, which will hopefully and likely be progressive, it should be striving urgently to apply and develop best safety standards and procedures that are in-step with developers' progressions, but that also align with the circumstances of the UK and issues relating to the road infrastructure environment.

Safety should be seen as a human right. Above all, it is vital that everything is done, that can be done, to assure the safety of automated vehicles, to prevent casualties but also to retain public confidence in the process of ADS development, which has the potential to save so many lives by removing the human factor of the driver.

While it is inevitable, now, that standards are being driven by vehicle and technology developers, assurance of safety should not remain in the hands of the developers alone for many reasons. A primary reason is that safety must always be considered within the wider context of health and safety, which, for the purposes of road safety, means safe and healthy mobility. Safe and healthy mobility means enabling people to get about in ways that include active travel (walking, cycling, etc). Vehicles contribute to death and injury through collisions but also death and illness through lack of daily exercise, contributing significantly to disease, as well as poisonous air from emissions.

Along with many of the richest nations, the UK is starting to transform its streets to prioritise movement of people in active ways - by bicycle and on foot – above the movement of vehicles and restrict vehicles that are particularly dangerous in ways such as lack of safety features that protect people, lack of driver direct vision, or high emissions. It is essential that there is a safe and healthy mobility assurance system put in place for automated vehicles that reflects this progressive transformation of our road environment and its restrictions and keeps ADS authorisation in line with this transformation and its requirements. Vehicles and people simply do not mix. Aside from the obvious and absolute incongruity and inappropriateness of a human body in a collision with a lump of metal, people also need to be given space to move in active ways, free from fear and all obstacles. Therefore, the safety assurance system we adopt for the UK needs to be reflective of this 'Vision Zero' and 'Healthy Streets' thinking and the very real actions being undertaken by progressive and increasing numbers of local authorities to turn this thinking into reality, through segregated space for people first and foremost. We refer you to efforts in London under Transport for London and City of London but also elsewhere.

This concurrent transformation of our streets and development of automation provides a unique opportunity for both these things to be managed together, to prevent our streets being over-run with vehicles to the detriment of space for safe and healthy active mobility. It should not be forgotten that automated vehicles are interlinked with technologies built within the road infrastructure itself. Therefore, a key aspect of the assurance system is where vehicles are allowed to operate, as well as the standards of the vehicles themselves and the standards of the road infrastructure they use.

Such concurrent development of automated vehicle standards, and separation of people from vehicles, through a safety assurance system that prioritises public health and active travel, will have the added benefit of making safe and healthy ADS operation a more imaginable prospect, as many of the issues raised about ADS relate to the interface with people outside vehicles and concerns relating to people choosing to use them above active travel.

Such an assurance system must be third party, while building on the learnings of manufacturers and working alongside them to share information openly and gain clarification on any safety or operating issue.

The development of international standards is likely to contribute significantly to the evolution of the new safety assurance system and put requirements on developers, but these standards are likely to take a long time to establish; meanwhile the UK needs to be urgently setting and communicating its own requirements and standards, in its own context, as a country that is recognising and implementing an improved infrastructure environment for safe and healthy mobility. We must also be working to share those requirements and standards with other governments and regulators and learn from each other.

Consultation Question 11: We seek views on how the safety assurance scheme could best work with local agencies to ensure that it is sensitive to local conditions.

The same safety standards must be applied to all regions. We refer to our answer to question 10 regard to this. This means certain vehicles on certain road space, which can be defined within the safety assurance scheme within the wider safe and healthy mobility requirements we face.

Chapter 5: Regulating safety on the roads

Consultation Question 12: If there is to be a new safety assurance scheme to authorise automated driving systems before they are allowed onto the roads, should the agency also have responsibilities for safety of these systems following deployment?

Yes

No

Other

No - The responsibility for safety of these systems following deployment is the manufacturers.

The responsibility for monitoring safety should be an independent Road Collision Investigation Branch, which Brake is separately calling for.

If so, should the organisation have responsibilities for:

(1) regulating consumer and marketing materials?

(2) market surveillance?

(3) roadworthiness tests?

(1) No – although the work of the Advertising Standards Agency (ASA) will need to be informed well.

(2) Yes - Market surveillance is essential to develop standards and regulations.

(3) Yes – the safety assurance scheme would have a role in determining how roadworthiness tests are called (this could be either reactive following a fault identification, or regular (as per MOTs) or both) and how they are undertaken.

We seek views on whether the agency’s responsibilities in these three areas should extend to advanced driver assistance systems.

Yes, extend to advanced driver assistance systems

No, do not extend to advanced driver assistance systems

Other

No – EC Type Approval (General Safety Regulations) is likely to cover this.

Consultation Question 13: Is there a need to provide drivers with additional training on advanced driver assistance systems?

Yes

No

Other

Yes, and the amount of training provided should be based on research-led evidence regarding the amount of training required. In other words, not under-estimated.

If so, can this be met on a voluntary basis, through incentives offered by insurers?

Yes

No

Other

No. Reliable routes should include compulsory driver testing as part of the learner driver process, and also a legal requirement on vehicle dealers to demonstrate features to buyers.

Consultation Question 14: We seek views on how accidents involving driving automation should be investigated.

Brake has long called for an independent Road Collision Investigation Branch (RCIB).

This is different to collision investigation by police, which, although often excellent, is led by a requirement to demonstrate if a crime has been committed or not. In other words, it is selective in its scope and also fragmented by police force.

There have been various academia-led investigations into crash causation over the years, including the current RAIDS project by TRL, which is commendable, but such projects are grant funded and come and go, and the organisations delivering them do not have the status of an investigation branch. There is an urgent need for a single, united, and permanent RCIB.

An RCIB would aim to demonstrate the causes of deaths and injuries that can be addressed to eliminate or mitigate risk in the future. Often the causes are engineering in nature, relating to the vehicle (crash protection features, for example) or the road design (for example, crash barriers). Such cause prevention is the foundation stone of a Vision Zero approach.

No death or serious injury on roads is acceptable.

This approach is taken in other modes of transport, for example rail and aviation, which already have independent collision branches.

There is an urgent requirement, notably but not exclusively because of the development of automated vehicles, for an RCIB to:

- *train and standardise collision investigation, by police or others, and undertake detailed independent collision investigation with a focus on causation not criminality, including collisions involving automated vehicles;*
- *record and analyse data to identify causations and causation patterns; and*
- *make recommendations.*
-

We seek views on whether an Accident Investigation Branch should investigate high profile accidents involving automated vehicles? Alternatively, should specialist expertise be provided to police forces.

Brake's view is as described in the answer above, with reiteration here that the job of the RCIB is to prevent, and the job of police is to establish culpability.

Consultation Question 15:

(1) Do you agree that the new safety agency should monitor the accident rate of highly automated vehicles which drive themselves, compared with human drivers?

Agree

Disagree

Other

Agree. This is a very important aspect of public acceptability, and rates of collisions and causation of those collisions, is essential for prioritising interventions. If there is a discrepancy between numbers of miles travelled by human drivers and highly automated vehicles this must be taken into account when making comparisons. Data is warped by small sample sets.

(2) We seek views on whether there is also a need to monitor the accident rates of advanced driver assistance systems.

Yes, monitor advanced driver assistance system accident rates

No, do not monitor advanced driver assistance system accident rates

Other

Yes

This highlights the importance of a RCIB. Only through an RCIB can a vehicle's capabilities be considered a vital part of the crash investigation. Such capabilities are inevitably less relevant in a police investigation usually regarding driver culpability.

Consultation Question 16:

(1) What are the challenges of comparing the accident rates of automated driving systems with that of human drivers?

See above answers.

2) Are existing sources of data sufficient to allow meaningful comparisons? Alternatively, are new obligations to report accidents needed?

Information from vehicles could and should be provided automatically to the RCIB when there is a near miss or a collision. A near miss, as well as a collision that caused serious harm, can provide significant, valuable information to prevent deaths and injuries in the future. ADSEs must implement automated systems that allow this, meaning there is a wealth of, and constant flow of, data into RCIB regarding automated vehicle collisions and near misses.

Chapter 6: Civil liability

Consultation Question 17: We seek views on whether there is a need for further guidance or clarification on Part 1 of Automated and Electric Vehicles Act 2018 in the following areas:

(1) Are sections 3(1) and 6(3) on contributory negligence sufficiently clear?

Yes

No

Other

n/a

(2) Do you agree that the issue of causation can be left to the courts, or is there a need for guidance on the meaning of causation in section 2?

Leave to courts

Need for guidance

Other

n/a

(3) Do any potential problems arise from the need to retain data to deal with insurance claims? If so:

(a) To make a claim against an automated vehicle's insurer, should the injured person be required to notify the police or the insurer about the alleged incident within a set period, so that data can be preserved?

(b) How long should that period be?

n/a

Consultation Question 18: Is there a need to review the way in which product liability under the Consumer Protection Act 1987 applies to defective software installed into automated vehicles?

Yes

No

Other

n/a

Consultation Question 19: Do any other issues concerned with the law of product or retailer liability need to be addressed to ensure the safe deployment of driving automation?

Brake is not qualified to answer the above questions relating to C.6 and would defer to answers from lawyers and their associations specialising in collisions and civil claims pursuant to, but would wish to be consulted on any legal changes and their reasoning.

Chapter 7: Criminal liability

Consultation Question 20: We seek views on whether regulation 107 of the Road Vehicles (Construction and Use) Regulations 1986 should be amended, to exempt vehicles which are controlled by an authorised automated driving system.

Yes, amend regulation 107 in this way

No, do not amend regulation 107 in this way

Other

Brake is not qualified to answer the above, but would wish to be consulted on any legal changes and their reasoning.

Consultation Question 21: Do other offences need amendment because they are incompatible with automated driving?

Yes

No

Other

Brake is not qualified to answer the above, but would wish to be consulted on any legal changes and their reasoning.

Consultation Question 22: Do you agree that where a vehicle is:

(1) listed as capable of driving itself under section 1 of the Automated and Electric Vehicles Act 2018; and

(2) has its automated driving system correctly engaged;

the law should provide that the human user is not a driver for the purposes of criminal offences arising from the dynamic driving task?

Yes

No

Other

Other – Yes, as per the definitions in this consultation in relation to the highest levels of automation where there is no “driver” as such. No, in cases where the user in charge (better defined) is in a position where they are required to monitor continually, and is trained to do so, and is responsible for a vehicle’s operation, in a particular way that has been breached (as per earlier answers) contrary to these requirements.

Consultation Question 23: Do you agree that, rather than being considered to be a driver, a user-in-charge should be subject to specific criminal offences? (These offences might include, for example, the requirement to take reasonable steps to avoid an accident, where the user-in-charge is subjectively aware of the risk of serious injury (as discussed at paragraphs 3.47 to 3.57)).

Yes, with regard to the responsibilities that can be expected to be reasonably applied, as per earlier answers.

Consultation Question 24: Do you agree that:

(1) a registered keeper who receives a notice of intended prosecution should be required to state if the vehicle was driving itself at the time and (if so) to authorise data to be provided to the police?

Agree

Disagree

Other

Agree, with the caveat that all information should be shared automatically between the vehicle and the RCIB anyway.

(2) where the problem appears to lie with the automated driving system (ADS) the police should refer the matter to the regulatory authority for investigation?

Agree

Disagree

Other

Other – and investigation should be undertaken by the independent RCIB, with information shared with all relevant agencies.

(3) where the ADS has acted in a way which would be a criminal offence if done by a human driver, the regulatory authority should be able to apply a range of regulatory sanctions to the entity behind the ADS?

Agree

Disagree

Other

Agree.

(4) the regulatory sanctions should include improvement notices, fines and suspension or withdrawal of ADS approval?

Agree

Disagree

Other

Agree. There should also be robust discussion and determination regarding when there should be criminal charges against individuals and entities that relate to the outcome of death and injury, the most notable being charges of corporate manslaughter and equivalent.

Consultation Question 25: Do you agree that where a vehicle is listed as only safe to drive itself with a user-in-charge, it should be a criminal offence for the person able to operate the controls (“the user-in-charge”):

(1) not to hold a driving licence for the vehicle;

(2) to be disqualified from driving;

- (3) to have eyesight which fails to comply with the prescribed requirements for driving;**
- (4) to hold a licence where the application included a declaration regarding a disability which the user knew to be false;**
- (5) to be unfit to drive through drink or drugs; or**
- (6) to have alcohol levels over the prescribed limits?**

It is agreed that users-in-charge should have requirements put upon them that are appropriate for their task. This could include a longer list of requirements depending on the demands of the task. As per previous answers, the definition of user-in-charge is too broad and non-specific, and a number of different definitions need to be evolved, with requirements set against these definitions for training, testing and standards relating to health and skills.

Consultation Question 26: Where a vehicle is listed as only safe to drive itself with a user-in-charge, should it be a criminal offence to be carried in the vehicle if there is no person able to operate the controls?

- Yes**
- No**
- Other**

Yes.

Consultation Question 27: Do you agree that legislation should be amended to clarify that users-in-charge:

- (1) Are "users" for the purposes of insurance and roadworthiness offences; and**
- (2) Are responsible for removing vehicles that are stopped in prohibited places, and would commit a criminal offence if they fail to do so?**

- Agree**
- Disagree**
- Other**

This question seems more to refer to owners rather than users-in-charge. If the question relates to owners, then yes to both.

Consultation Question 28: We seek views on whether the offences of driving in a prohibited place should be extended to those who set the controls and thus require an automated vehicle to undertake the route.

Yes. As per previous answers, routing of autonomous vehicles (where they are allowed to travel) is very important, and a key part of regulation and standards setting. The offences of them being operated or parked in disallowed places are vital to get right and be possible to enforce well.

Consultation Question 29: Do you agree that legislation should be amended to state that the user-in-charge is responsible for:

- (1) duties following an accident;**
- (2) complying with the directions of a police or traffic officer; and**
- (3) ensuring that children wear appropriate restraints?**

Yes. There is a real and urgent need for better procedures to be followed, and first aid delivered, following a crash, and training and testing in this could be made a requirement. This ranges from moving people away from the road environment for their own safety, to clearing someone's blocked airway, to following police instructions. These duties save lives and often need to be performed before all relevant emergency services arrive.

It is important that the user in charge is an adult and ensures that not just children, but everyone, is appropriately restrained, including those with disabilities. Lack of restraint is a major cause of death and injury, not just to people who are unrestrained, but to others around them who are (due to being hit by the unrestrained person). It should also be a requirement that no advanced vehicle would move without everyone appropriately seated and restrained. This should be a basic requirement of such vehicles which carry such advanced technologies.

Consultation Question 30: In the absence of a user-in-charge, we welcome views on how the following duties might be complied with:

- (1) duties following an accident;**
- (2) complying with the directions of a police or traffic officer; and**
- (3) ensuring that children wear appropriate restraints.**

As stated above, training and testing are key here. Also vehicle developments that assist compliance (such as a vehicle not starting unless everyone is restrained).

Consultation Question 31: We seek views on whether there is a need to reform the law in these areas as part of this review.

This is likely, for safety reasons, in particular, with regard to seat belt law. For example, given that everyone has a right to safety, it is not fair that an adult's decision to break the law and not belt up could cost someone else their life because the unrestrained person's body hit them. Giving the user in charge responsibility for seat belt wearing could have advantages.

Consultation Question 32: We seek views on whether there should be a new offence of causing death or serious injury by wrongful interference with vehicles, roads or traffic equipment, contrary to section 22A of the Road Traffic Act 1988, where the chain of causation involves an automated vehicle.

Yes, new offence

No, no new offence

Other

Yes, new offence. There will be a wealth of equipment, in road infrastructure and vehicles, that must not be tampered with, and if interference is proven directly to lead to death and injury then this could be considered fair causation and punished accordingly.

Consultation Question 33: We seek views on whether the Law Commissions should review the possibility of one or more new corporate offences, where wrongs by a developer of automated driving systems result in death or serious injury.

Yes, review new corporate offences

No, do not review new corporate offences

Other

Other. These should consider existing corporate offences and whether they are applicable, such as corporate manslaughter, as per previous answer.

Chapter 8: Interfering with automated vehicles

Consultation Question 34: We seek views on whether the criminal law is adequate to deter interference with automated vehicles. In particular:

(1) Are any new criminal offences required to cover interference with automated vehicles?

Yes

No

Other

This question seems to relate to Q32, and we defer to that answer. Other aspects of law may be adequate, for example laws preventing cyber tampering.

(2) Even if behaviours are already criminal, are there any advantages to re-enacting the law, so as to clearly label offences of interfering with automated vehicles?

Yes

No

Other

Yes, this seems a good idea, to enable public understanding.

Consultation Question 35: Under section 25 of the Road Traffic Act 1988, it is an offence to tamper with a vehicle's brakes "or other mechanism" without lawful authority or reasonable cause. Is it necessary to clarify that "other mechanism" includes sensors?

Yes

No

Other

Yes –given that the wording of the question suggests that "mechanism" is not fairly descriptive, and that further clarification is needed.

Consultation Question 36: In England and Wales, section 12 of the Theft Act 1968 covers "joyriding" or taking a conveyance without authority, but does not apply to vehicles which cannot carry a person. This contrasts with the law in Scotland, where the offence of taking and driving away without consent applies to any motor vehicle. Should section 12 of the Theft Act 1968 be extended to any motor vehicle, even those without driving seats?

Yes

No

Other

Yes

Consultation Question 37: In England and Wales, section 22A(1) of the Road Traffic Act 1988 covers a broad range of interference with vehicles or traffic signs in a way which is obviously dangerous. In Scotland, section 100 of the Roads (Scotland) Act 1984 covers depositing anything on a road, or inscribing or affixing something on a traffic sign. However, it does not cover interfering with other vehicles or moving traffic signs, even if this would raise safety concerns. Should section 22A of the Road Traffic Act 1988 be extended to Scotland?

Yes

No

Other

Yes

Chapter 9: "Machine Factors" - Adapting road rules for artificial intelligence decision-making

Consultation Question 38: We seek views on how regulators can best collaborate with developers to create road rules which are sufficiently determinate to be formulated in digital code.

We would defer to ADS developers regarding the necessity for this. Road rules should be the same for all; drivers and vehicles. The important aspect from Brake's perspective is simplification of our road environment through segregation to enable both a) mobility of people separately to all vehicles and ADS; and b) easier implementation of ADS and the potential safety benefits it brings.

Consultation Question 39: We seek views on whether a highly automated vehicle should be programmed so as to allow it to mount the pavement if necessary:

- (1) to avoid collisions;
- (2) to allow emergency vehicles to pass;
- (3) to enable traffic flow;
- (4) in any other circumstances?

(1) Never. Pavements are for people, roads are for traffic. No sudden manoeuvres onto pavements should ever be allowable, and no safety assurance would allow it due to the variables involved. Such allowance would be utterly counter to a Vision Zero or Health Streets approach and potentially damage the vehicle.

(2) OK with the caveat that slow-speed, safe operation should be demonstrated in the safety assurance scheme.

(3) No, aside from (2) above.

(4) Only in select circumstance. Parking and drop offs / pick ups need to be managed with great care. It has been identified that there are inherent risks when moving from an environment meant for a vehicle to an environment meant for people, and also currently shared environments, eg car parks. It is better if our spaces can be designed to make this largely unnecessary; any such low speed manoeuvring in a people-centred space requires extremely careful safety assurance.

Consultation Question 40: We seek views on whether it would be acceptable for a highly automated vehicle to be programmed never to mount the pavement.

Yes. There are many different road environments, for example motorways through to city streets, and different ‘pavements’, for example cycle paths, paths for people walking, and general spaces for people. It is highly appropriate that automated vehicles are developed in step with the development and segregation of these road environments, and that automated vehicles are restricted to remain on the routes assigned to them, that are appropriate for their size and speed.

People should be able to walk, cycle and scooter knowing that their space for active travel is protected from invasion by vehicles at any time. The example of manoeuvring slowly out the way because of an emergency vehicle should be seen as the rare exception that proves the rule. Even if a vehicle mounts at low speed, this doesn’t negate risk, particularly if people engaged in active travel are moving comparatively fast (for example on a high speed cycle path).

Consultation Question 41: We seek views on whether there are any circumstances in which an automated driving system should be permitted to exceed the speed limit within current accepted tolerances.

No. Speed is critical to the outcome of collisions. The slower we go, the more chance there is for a driver, or a system, to avoid a collision, and the less hard we hit.

Consultation Question 42: We seek views on whether it would ever be acceptable for a highly automated vehicle to be programmed to “edge through” pedestrians, so that a pedestrian who does not move faces some chance of being injured. If so, what could be done to ensure that this is done only in appropriate circumstances?

The onus must never be on a pedestrian (or cyclist), or, in other words, a person travelling in an active way, to react to avoid being in the path of an autonomous vehicle. The onus must be on the vehicle, which must assist risk and never knowingly risk hitting someone. Such systems must be robust and cater for every eventuality, including the toddler who breaks away from their parent. Because of the variability of risk, we refer to our earlier answers about segregation and safety assurance of our road environments and autonomous vehicles being undertaken hand in hand.

Consultation Question 43: To reduce the risk of bias in the behaviours of automated driving systems, should there be audits of datasets used to train automated driving systems?

Yes

No

Other

Other - The scope and requirements of the safety assurance scheme’s undertakings must, critically, be informed by the RCIB recommendations. As well as testing, it is possible that a safety assurance scheme could have an interest in reviewing data sets used to train ADS to ensure it covers all possibilities within the operational design domain, including addressing any bias in those data sets.

Consultation Question 44: We seek views on whether there should be a requirement for developers to publish their ethics policies (including any value allocated to human lives)?

Yes

No

Other

Yes. Any reputable organisation should have an ethical policy, available to all, that places the health and safety of people and our planet centrally.

Consultation Question 45: What other information should be made available?

The RCIB should publish data regularly that informs the public about collisions and near misses and their causation; and their recommendations.

Consultation Question 46: Is there any other issue within our terms of reference which we should be considering in the course of this review?

It could be presumed that a whole-scale redesign of our road infrastructure environment is unrealistic and that automated vehicles need to be “made to work” in our current road infrastructure environment. However, significant funds are being ploughed into our main arterial routes (through Highways England, for example) and into our cities, with significant intention (for example through the Cycling and Walking Investment Strategy) to segregate vehicles from people. As indicated elsewhere in this response, an urgent aligning of the development and standards setting of autonomous vehicles and our roads’ development is an opportunity not to be missed which will much better protect us in the future in terms of people’s health, safety and wellbeing. It seems to be appropriate, in the context of many other things raised in this consultation, notably the urgent need for a RCIB and the need to consider legality issues, among other things, to factor this consideration of our road environment and its urgent overhauling into this review’s findings, and to do so centrally and with gravitas. To fail to do so is to ignore the elephant in the room.

Brake thanks the Law Commission for this opportunity to respond.

End/ 11.2.19