

Law Commissions' consultation on automated vehicles: a regulatory framework for automated vehicles

OVERVIEW

This is a public consultation by the Law Commission for England and Wales and the Scottish Law Commission.

The consultation questions are drawn from our third consultation paper published as part of a review of automated vehicles. For more information about this project, visit:

<https://www.lawcom.gov.uk/project/automated-vehicles/>

In the consultation paper, we make provisional proposals for a new regulatory system, examining the definition of “self-driving”; safety assurance before AVs are deployed on the road; and how to assure safety on an ongoing basis. We also consider user and fleet operator responsibilities, civil liability, criminal liability and access to data.

We recommend that consultees read the consultation paper, which can be found on our websites:

<https://www.lawcom.gov.uk/project/automated-vehicles/> and

<https://www.scotlawcom.gov.uk/law-reform/law-reform-projects/joint-projects/automated-vehicles>

A shorter summary is also available on the same pages.

We are committed to providing accessible publications. If you require this consultation paper to be made available in a different format please email:

automatedvehicles@lawcommission.gov.uk.

ABOUT THE LAW COMMISSIONS:

The Law Commissions are statutory bodies created for the purpose of promoting law reform. The Law Commissions are independent of Government. For more information about the Law Commission of England and Wales please visit <https://www.lawcom.gov.uk/>. For more information about the Scottish Law Commission please visit <https://www.scotlawcom.gov.uk/>.

PRIVACY POLICY

Under the General Data Protection Regulation (May 2018), the Law Commissions must state the lawful bases for processing personal data. The Commissions have a statutory function, stated in the 1965 Act, to receive and consider any proposals for the reform of the law which may be made or referred to us. This need to consult widely requires us to process personal data in order for us to meet our statutory functions as well as to perform a task, namely

reform of the law, which is in the public interest. We therefore rely on the following lawful bases:

- (a) Legal obligation: processing is necessary for compliance with a legal obligation to which the controller is subject;
- (b) Public task: processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller.

Law Commission projects are usually lengthy and often the same area of law will be considered on more than one occasion. The Commissions will, therefore retain personal data in line with our retention and deletion policies, via hard copy filing and electronic filing, and, in the case of the Law Commission of England and Wales, a bespoke stakeholder management database, unless we are asked to do otherwise. We will only use personal data for the purposes outlined above.

FREEDOM OF INFORMATION

We may publish or disclose information you provide us in response to our papers, including personal information. For example, we may publish an extract of your response in our publications, or publish the response in its entirety. We may also share any responses received with Government. Additionally, we may be required to disclose the information, such as in accordance with the Freedom of Information Act 2000 and the Freedom of Information (Scotland) Act 2002. If you want information that you provide to be treated as confidential please contact us first, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic disclaimer generated by your IT system will not be regarded as binding on the Law Commissions. The Law Commissions will process your personal data in accordance with the General Data Protection Regulation, which came into force in May 2018.

Any concerns about the contents of this Privacy Notice can be directed to:
enquiries@lawcommission.gov.uk.

About you

What is your name?

Matthew Avery; Jonathan Fong

What is the name of your organisation?

Thatcham Research; the Association of British Insurers

Are you responding to this consultation in a personal capacity or on behalf of your organisation? (Please select only one item)

Personal response

Responding on behalf of organisation

Other

If other, please state:

What is your email address? (If you enter your email address then you will receive an acknowledgement email when you submit your response.)

If you want the information that you provide in response to this consultation to be treated as confidential, please explain to us why you regard the information as confidential. As explained in our privacy notice, we will take full account of your explanation but cannot give an assurance that confidentiality can be maintained in all circumstances.

The definition of self-driving (Chapters 2 to 5)

Consultation Question 1

We provisionally propose that:

- (1) a vehicle should not be classified as self-driving if, with the automated driving system (ADS) engaged, the user-in-charge needs to monitor the driving environment, the vehicle or the way it drives;
- (2) it is nevertheless compatible with self-driving to require the user-in-charge to respond to a clear and timely transition demand which:
 - (a) cuts out any non-driving related screen use;
 - (b) provides clear visual, audio and haptic signals; and
 - (c) gives sufficient time to gain situational awareness;
- (3) to be classified as self-driving, the vehicle must be safe enough even if the human user does not intervene in response to any event except a clear and timely transition demand.

Do you agree?

Yes No Other

Please expand on your answer

<p>Consultation Question 1</p> <p>(1) Agree</p> <p>(2)</p> <ol style="list-style-type: none">a. Agree (see comments below)b. Agreec. Agree in principle, however we believe we must define safe timescales before this technology is deployed on UK roads. See below. <p>(3) Agree. Though the Government and regulators will need to consider that this classification needs to be a continual assessment across the lifecycle of a vehicle.</p> <p>With reference to the text preceding Question 1, we make the following points:</p> <p>(1.6)(1) It is our view that the automated driving system entity (ADSE) should be a single recognisable entity rather than partnership; e.g., a vehicle manufacturer or a technology supplier in the case that a standalone piece of equipment is fitted to the vehicle which provides the capability. We further believe that the European New Car Assessment Programme (Euro NCAP) nomenclature and taxonomy (as described on page 17 of the</p>

ABI & Thatcham joint document "[Defining Safe Automated Driving](#)") should be applied to ensure consistent and accurate use of terms.

(2) "Other Driver Responsibilities" needs to be defined, with clarity provided on both permitted and non-permitted tasks. This may need to be subject to change as technology develops.

(2.2) & (2.3) "Driving Itself" is not a sufficient definition because it can include both autonomous and automated driving.

(2.4)(1) There needs to be a specified list of permitted tasks, which is clear, common, and available to the public. This list of permitted tasks may vary by degree of vehicle automation and would need to be updated over time as vehicle capabilities evolve. Non-compliance, or engaging in a non-permitted task by the user-in-charge, may result in invalidation of insurance.

(2.4)(2)(a) Insurers would need adequate access to data in order to compensate victims. Insurers have identified a minimum of 7 data items which need to be captured, for every collision, in the "[Defining Safe Automated Driving](#)" document.

(2.6) There needs to be very clear differentiation between driving modes. Likewise, if there is more than one automation mode available on a single vehicle, it needs to be abundantly clear which mode is in operation.

(2.11) We would replace "exit from the motorway" with "exit from the operational design domain (ODD)" which is the correct terminology.

(2.12) Not all vehicles will come to a slow stop in lane. Some (e.g. Ford's system) will keep the vehicle moving at a very low speed until an obstacle is reached. This makes the vehicle more detectable to other autonomous vehicles, as well as providing a safer driving environment for the driver to reengage and take over the driving task if able to do so.

(2.16) In response to this comment from the Society of Motor Manufacturers & Traders (SMMT), there are many collisions which do and would continue to take place with no braking applied. The driver can only be expected to brake if engaged or at least monitoring the driving task. This is not something we can expect if the user-in-charge is permitted to watch a film or read emails.

(2.22) We need to be clear that permitted tasks are via the vehicle's built in infotainment suite only. Users will want to use personal devices such as mobile phones and tablets. Whilst this may well remain a criminal offence, vehicles will not be able to prevent this (current driver monitoring technology cannot exclude this), and the temptation for the user-in-charge will be greater than when driving manually. The legal stance needs to be made very clear to drivers.

(2.23) A driver that has fallen asleep might not respond to any of these stimuli. As such, a driver monitoring system should be mandated.

(2.27) It is impossible to determine a position on Consultation (1)(3) above if we are unable to define a suitable minimum transition period. Similarly, we believe it is

irresponsible to push this problem into the post launch period which may put the public at risk during the monitoring period. We need to define these timescales prior to launch.

(2.30) Again, the SMMT suggestion that the driver should respond to “extraordinary external conditions” such as soft brush collisions and emergency vehicles is incompatible with the suggestion that the user-in-charge can perform secondary tasks.

Consultation Question 2

We welcome views on whether self-driving features should be designed to ensure that they can be used by people with hearing loss.

Please share your views below

We believe all Automated and Assisted technology should be deployed in a manner which provides multi-sensory engagement with the driver / user-in-charge in terms of vehicle mode status and transition requirements. This includes a very clear look and feel differential between driving modes, as well as visual and haptic alerts to transition demands and countdowns to planned transition. There should also be consistency across various user experiences to prevent confusion when operating different automated driving systems.

Consultation Question 3

We provisionally propose that the decision whether a vehicle is sufficiently safe to “safely drive itself” should be made by the Secretary of State, as informed by advice from a specialist regulator.

Do you agree?

Yes No Other

Please expand on your answer

We agree with the above statement, but it is important that the decision is not made by the Secretary of State alone. We believe there should also be an informed recommendation from a specialist regulator that has the knowledge and experience necessary to make such an important decision. The Secretary of State should not be able to overrule the specialist regulator if they find empirical evidence that a vehicle is not able to “safely drive itself”. As previously indicated, this decision may also need to be revisited over the full lifecycle of an ADS.

(2.39) & (2.40) We would like to add that a system of proper accountability needs to be created. Currently, blame is apportioned to the at-fault driver and a long custodial sentence may well follow. A commensurate punitive measure must be taken against a

ADSE that is found to be at fault, but proportionality may be more difficult when dealing with a corporate entity. This is discussed further in Questions 23 and 24.

Consultation Question 4

We welcome observations on which of the following standards is most appropriate when assessing the safety of automated vehicles:

- (a) as safe as a competent and careful human driver;
- (b) as safe as a human driver who does not cause a fault accident;
- (c) overall, safer than the average human driver.
- none of the above

Please expand on your answer

We believe the safety benchmark should be “as safe as a competent human driver, driving a vehicle fitted with the most advanced L2 driver assistance available in the UK, with those systems enabled”. The comparison should not be made against a careful and competent human driver, driving a vehicle with no driver assistance fitted, as this would represent a step backwards in overall safety.

The rationale here is that most modern vehicles have a variety of inbuilt safety mechanisms. This should be the established base line with which to make the comparisons. However, it is also important to not create a sense of complacency. We do not want to foster a system where drivers over-rely on the capabilities of a vehicle.

Currently the DVSA sets standards for driving and the DVLA sets standards of licensing that meet the requirements of the DVSA. As ADS become more widespread, we would expect these organisations to set minimum standards for these systems as well.

Consultation Question 5

We welcome observations on how automated vehicles can be made as safe as reasonably practicable.

Please share your views below

Thatam Research are working with Euro NCAP to develop testing infrastructure. This testing regime will be a more demanding and transparent approach, which could form the basis of UK type approval. Available in the public domain, this could further be utilised to promote consumer awareness and understanding of this technology. This should be an essential part of path towards the integration of automation onto UK roads. The testing infrastructure should also establish a system for assessing a vehicle over its lifetime. This is expanded on below in terms of software updates.

This will be touched upon in other parts of our response as well, but we would like to reinforce the notion that any vehicle classified as automated needs to be able to make a minimum risk manoeuvre that allows it to change lanes and seek safe harbour on a shoulder or side of the road. Simply stopping in lane is not sufficient.

There should also be consideration to make sure there is sufficient support for second-hand owners. While we have discussed the need to communicate the capabilities and limitations of and ADS in previous consultation responses, we need to go further to ensure that second-hand owners have access to the same communications and continuing support from the ADSE.

Furthermore, we must think about a situation where an ADSE goes out of business or is unable to support their customers for whatever reason. For example, what happens if the ADSE is unable to provide a critical security update? There may be room to develop some sort of consumer protection in this space.

An additional consideration is that current technology may not be able to deal with some real-world situations. On many motorways, when roadworks are undertaken, the white dividing lines are tarred over. These marks usually remain after roadworks are complete and create a discernible contrast with the motorway. Current ADS sensors and cameras are programmed to look for contrast and we envision a situation where the ADS would be confused by these black lines. Additionally, we have also seen instances where new white lines are drawn, but the old ones are not removed. These cases may cause a lot of confusion for an ADS. The difficulty here is that there is no viable technological solution to address this problem, nor is there a reliable way to incorporate all the potential instances and occurrences of these problems into the testing.

Consultation Question 6 (Paragraph 5.121)

We welcome practical suggestions for how AV regulators can fulfil their public sector equality duty.

Please share your views below

ADS have the ability to expand access to transportation to significant parts of the populace that are unable or do not want to drive, including, but not limited to: individuals with cognitive disabilities; individuals with physical disabilities; individuals who have experienced vision loss; those that do not have, or are unable to acquire a license; older and younger persons; etc.

We encourage AV regulators to ensure that all protected attributes are taken into account when developing regulations around ADS. How they go about doing so is not for Thatcham or the ABI to comment on.

Safety assurance before deployment (Chapters 6 to 8)

Consultation Question 7 (Paragraph 7.99)

We provisionally propose that:

- (1) safety assessment should use a variety of techniques.
- (2) manufacturers/developers should submit a safety case to regulators showing why they believe that the automated driving system is safe;
- (3) regulators should:
 - (a) provide guidelines for what is in the safety case;
 - (b) audit the safety case;
 - (c) prepare guidance for manufacturers and developers on preferred standards; and
 - (d) carry out at least some independent tests.

Do you agree?

Yes No Other

Please expand on your answer

In terms of the specific questions raised within Question 7, it is not as simple as agree / disagree because there are several sub questions which also warrant a response. On that basis, we have broken our response down based on these elements:

- (1) Agree
- (2) Agree; however, the safety case must be prescriptive, structured, and formulaic. Likewise, it must be clear, transparent, and should be a unified approach.
- (3) (a) We support a set of rules. In essence we agree, but this needs to be strengthened. We believe that guidelines should supplement these rules as they can be useful to help improve the quality of self-driving safety cases.

(b) Agree, but we need to consider how this is to be achieved adequately, by whom, and with what qualifications. This needs to be clearly specified.

(c) Agree, but we would like to specify that these should be requirements, not just guidelines.

(d) Not at least some independent tests, there needs to be mandatory defined tests agreed by the multi-disciplinary work group / body / regulator. Vehicles should meet or exceed these requirements in order to be deemed legal.

In addition, we make the following points in response to the summary text leading up to Consultation Question 7:

(3.2) Our view is that UK standards should be supplementary to EU rules, in order to satisfy UK specific requirements, ensuring safety standards are consistent and representative. If the UK does go its own way, standards should be more demanding, thus setting the international benchmark, whilst stopping substandard technology being deployed onto UK roads.

(3.5) Diversity of individual standards and requirements force vehicle manufacturers to compromise to meet individual national requirements. This means that no system is perfectly attuned to individual state non-conformities. For example, since the use of handheld mobile devices may be permitted in the EU but not in the UK, their use would not prompt a reaction from the vehicle. A second example is 'red X' signs above closed motorway lanes which are only used in the UK. These are elements within the remit of UK type approval. In addition, drivers would need to comply with UK restrictions as well as international standards when driving a UK registered and insured vehicle abroad.

User expectations must be considered, and the systems must be sensitive to what the driver may try to do when disengaged from the driving task, not just what they are permitted to do.

Consultation Question 8

We seek views on whether an approval authority that intends to use a scenario database as part of the testing procedure should consult road user groups on the range of scenarios to be included.

Please share your views below

The reality is that we will need to rely on both qualitative and quantitative methods to establish a testing procedure. Scenario databases are useful, but we believe that some road user groups may provide biased opinion. Impartial public consultations could prevent some of this bias, but we need to consider a data-driven approach as well.

Consultation Question 9

We provisionally propose that:

- (1) unauthorised automated driving systems should be prohibited; and
- (2) this should be subject to an exemption procedure by which the Secretary of State may authorise unauthorised systems to be used in tests and trials.

Do you agree?

Yes No Other

Please expand on your answer

(1) Agree

(2) We would allow tests and trials, provided they don't circumvent type approval and act as a back door to deployment onto UK roads.

Consultation Question 10

We provisionally propose that:

- (1) the Government should establish a domestic scheme to approve automated driving systems (ADSs) for use on roads in Great Britain (a "national ADS approval scheme").
- (2) manufacturers should have a free choice to apply for approval under either the United Nations Economic Commission for Europe (UNECE) system of international type approvals or through the national scheme.
- (3) developers should be able to submit an ADS for national approval, even if they are not responsible for manufacturing the whole vehicle.

Do you agree?

Yes No Other

Please expand on your answer

Again, there are several sub questions which require individual response:

- (1) Agree, but this should be a UK structured safety assurance scheme. It should be multi-disciplinary including insurers and based on Thatcham Research / Euro NCAP processes.
- (2) Disagree. There should not be a free choice to choose the least taxing route to approval. With that being said, there needs to be a fine balance between ensuring that the type approval processes for vehicles allowed onto the UK roads are stringent enough, but also ensuring that they do not diverge too significantly from other markets given that the UK manufactures many cars for export as well.
- (3) Disagree.

Consultation Question 11

We provisionally propose that:

- (1) an ADS approval scheme should be established through regulation under the Road Traffic Act 1988, without further legislative reform.

- (2) an ADS should be defined as a combination of software, hardware and sensors, which can be installed in a “type” of vehicle;
- (3) when an ADS is approved, the approval should be accompanied by specifications for:
 - (a) the type of vehicle in which it can be installed; and
 - (b) how the ADS is installed within the vehicle;
- (4) where an ADS is installed in a pre-registered vehicle, an example vehicle should be submitted to the regulator for approval of the installation.

Do you agree?

Yes No Other

Please expand on your answer

- (1) We feel that a regulatory framework is required, but this is not a point Thatcham Research and the ABI can provide further insight on.
- (2) Whilst we agree with the sentiment, “installed” is the wrong terminology. ADS need to be integrated into the vehicle at the point of manufacture. This is not technology which should be made available for retrospective or aftermarket fitment.
- (3) & (4) We strongly disagree with any retrospective or aftermarket fitment of ADS systems. We do not believe that every vehicle should be capable of automated driving and it would be next to impossible to test how every aftermarket ADS would interact with each different make and model. If the entire system is not integrated at the same time by the manufacturer, there is increased risk of some adverse interaction between the ADS and the vehicle itself. For example, while an ADS might work well on one vehicle, the mechanical characteristics like steering and braking could be vastly different on other vehicles. It would also not be economically viable to adapt every vehicle to have all the other requirements as well as have additional approval processes for each different permutation of aftermarket ADS and vehicle.

Consultation Question 12

We invite observations on the appeal process in regulation 19 of the Road Vehicles (Approval) Regulations 2020, including:

- (1) how it works in practice; and
- (2) how well it is suited to the proposed national ADS approval scheme.

Please share your views below

We do not believe that there should be an appeal process. Vehicle manufacturers should take the feedback from the approval process and return when the required improvements have been made.

By having a process of early collaboration between vehicle manufacturers and approval authorities, it could essentially render the appeals process moot.

While this may be an obstacle for vehicles that have sought international type approval, we think this is a suitable step towards ensuring vehicles are completed for safe use within the UK.

In the long term, this could be reviewed once technology and vehicle form has significantly advanced or there are issues with the type approval processes (please see response to Question 19).

Consultation Question 13

We provisionally propose that:

- (1) once an ADS has received type approval at either international or domestic level, an Automated Driving System Entity (ADSE) would need to submit the vehicle to the UK safety regulator for categorisation as able to safely drive itself;
- (2) the safety regulator should make a recommendation to the Secretary of State for how the vehicle should be classified;
- (3) it should be open to the safety regulator to recommend that an ADS-enabled vehicle is classified in one of three ways: as not self-driving but driver assistance; as self-driving only with a user-in-charge; or as self-driving without a user-in-charge;
- (4) the safety regulator should only recommend classification as self-driving (either with or without a user-in-charge) if it is satisfied that:
 - (a) an ADSE is registered as taking responsibility for the system;
 - (b) the ADSE was closely involved in assessing safety and creating the safety case; and
 - (c) the ADSE has sufficient funds accessible to the regulator to respond to improvement notices, to pay fines and to organise a recall.

Do you agree?

Yes No Other

Please expand on your answer

(1) Agreed

(2) Agreed

- (3) We believe that if an ADS does not meet the standard of being classed as Automated, there should not be an automatic fallback to classification as Assisted. Substandard automation does not always equal competent assisted technology; therefore, this requires separate type approval. We believe the three categories should be: a) self-driving only with a user-in-charge; b) self-driving without a user-in-charge; and c) not self-driving.
- (4) Agreed, although ADSE should be read as the vehicle manufacturer only, not a tier 1 supplier or software provider.

Consultation Question 14

We provisionally propose that a new legislative framework should provide regulation-making powers to specify:

- (a) who should assess whether a vehicle is capable of self-driving;
- (b) the procedure for doing so; and
- (c) criteria for doing so.

Do you agree?

Yes No Other

Please expand on your answer

Agreed

Consultation Question 15

We seek views on whether the new legislation should include provisions for appeals against a categorisation decision. If so, should these be similar to those in regulation 19 of the Road Vehicles (Approval) Regulations 2020?

Please share your views below

Please refer to our answer in Question 12.

Consultation Question 16

We seek views on whether the regulator that classifies vehicles as self-driving should have power to allow their deployment in limited numbers, so as to gather further data on their safety in real world conditions.

Please share your views below

We do not agree. Vehicles permitted for use on UK roads, no matter the volumes, should meet UK safety assurance (UKSA). Only once vehicles are deemed to be compliant with regulation and UKSA should vehicles be then released for testing on UK roads. Trials

should take place as part of the testing phase – i.e. not on public roads. Once the UKSA has been attained, then the vehicles should be deployed for further real-world testing.

To clarify this point, the UKSA applies to pre-market assessment. A completely separate arrangement for monitoring vehicles deployed on UK roads would be required (i.e. a UK testing regime). This essentially creates a graded safety assurance process in which an ADS would need to meet minimum safety standards before being allowed to test on roads.

Only after UKSA is met, should vehicles then be deployed in limited numbers to gather further data on their safety in real world conditions.

Assuring safety in use (Chapters 9 to 11)

Consultation Question 17

We provisionally propose that legislation should establish a scheme to assure the safety of automated driving systems following deployment, giving scheme regulators enhanced responsibilities and powers.

Do you agree?

Yes No Other

Please expand on your answer

Whilst we agree with this specific question, we take issue with some aspects of the preceding text as follows:

(4.1) We are not aware that this is true.

(4.2) We cannot agree with the statement that “One cannot be sure that AVs are safe until they have been observed under real world conditions.” The minimum level of safety applied must be United Nations (UN) type approval, plus UKSA on all vehicles. In addition, we believe that the automated driving related functionality needs to be maintained throughout the lifetime of the vehicle, including annual checks - perhaps as part of a revised MOT test. We cannot afford to allow systems to degrade over time unchecked. A feedback loop is essential as technology advances and our understanding of its performance matures.

(4.6) The UK Safety Assurance is separate and applies to pre-market assessment. A completely separate arrangement for monitoring vehicles deployed on UK roads would be required. For example, a UK testing regime.

(4.9) We believe the solution described is unworkable. In our view where this situation occurs, UK Safety Assurance would need to raise a non-compliance notice with whichever UN authority provided the original type approval. This would then feed back to the vehicle manufacturer (via the established market surveillance process). The vehicle manufacturer (VM) would need to make the required changes and resubmit the vehicle for renewed type approval with the original approval authority. The required changes would need to have a clear classification taxonomy, such as ‘critical’, ‘major’, or ‘minor’, which would dictate the required course of action.

(4.11) We believe cybersecurity needs to be maintained by the UN process. Cybersecurity needs to be included in the UK Safety Assurance and should consider feedback and identified weaknesses. This could be similar to the Information Sharing and Analysis Center (ISAC) in the US.

(4.14) Yes. Overseen by UK assessment and followed up via feedback loop. The vehicle manufacturer must declare non-compliance, map changes and inform where these have been implemented. We believe this arrangement needs to be formally structured.

(4.17) The UK insurance industry published its [“Defining Safe Automated Driving”](#) document in August 2019, which detailed 12 key requirements. One of these requirements related to driver training and nomenclature. Vehicle manufacturers must provide in-vehicle training to all users, to include driver acknowledgement prior to access to ADS being granted. Vehicle manufacturers must name system functionality clearly, making the limitations of the systems abundantly clear. In this instance, VMs must not market ALKS technology as fully automated, due to the clear system limitations.

(4.20) Vehicles must record and collate incident data, including minor crashes and near misses. This data must include location data. This needs to be transparent and used to inform system upgrades and further testing requirements. A dedicated UK authority to look at automated driving safety in addition to incident investigation needs to be considered. Similar to RAIDS, for example.

Consultation Question 18

We provisionally propose that the enhanced scheme should give regulators the following responsibilities and powers:

- (1) scheme regulators should be responsible for comparing the safety of automated and conventional vehicles using a range of measures;
- (2) to do this the regulator should have power to collect information on:
 - (a) leading measures (instances of bad driving which could have led to harm) and
 - (b) lagging measures (outcomes which led to actual harm);
- (3) regulators should have power to require an ADSE:
 - (a) to update software where an update is needed to ensure safety and continued compliance with the law;
 - (b) to keep maps up-to-date, where an AV relies on maps to ensure safety and compliance with the law;
 - (c) to communicate information about an ADS to users in a clear and effective way, including where necessary through training.

Do you agree?

Yes No Other

Please expand on your answer. In particular, if you think the enhanced scheme should give regulators some but not all of the listed responsibilities and powers.

(1) Yes. Further to the points stated, the regulator should be a multi-disciplinary approach, including safety experts, consumer testing and insurers, with the aim of promoting and ensuring safety. Worth understanding more about any UK-specific elements of type approval beyond UN regs.

(2) Yes.

Without cyber-resilient vehicles, safe automation is not possible. Even a single cyber-related incident could shatter public confidence in the technology and severely limit the uptake, as well potentially impacting public safety.

The UN regulations are wide-ranging, and the Vehicle Certification Agency (VCA) are working on type approval, however further consideration needs to be made of the cybersecurity challenges as the complexity, scope, and scale is enormous.

In terms of regulatory responsibility, this should sit with the VCA (approval) and the Driver and Vehicle Standards Agency (DVSA; market surveillance), though it should be noted that the complexity and nature of cybersecurity will require a considerable change of approach. The DVSA could, for example, maintain a mechanism for notifying owners of safety recalls that require an urgent software update, similar to the safety recall system for physical defects. This would potentially be at a far higher frequency and would need to be delivered more quickly and effectively.

- (3) In addition to the point mentioned, software versioning should be clear and publicly available.
 - b. In practice, this may be quite challenging. Maps are not centralised and may rely on local authorities, utility companies, infrastructure providers, etc. to update maps. There will also need to be a practical way to deal with an instance where map providers are providing conflicting road conditions/statuses.
 - c. The manufacturer should also provide mandatory training through a vehicles infotainment system and ensure the user is paying attention. The system will also need to be able to identify new drivers that have not taken the training.

Consultation Question 19

We welcome views on the following issues:

- (1) Should scheme regulators be empowered to approve software updates that apply only within the UK, without requiring the manufacturer to return to the original type approval authority?
- (2) Should the scheme should also deal with cybersecurity?
- (3) Are other powers needed? (Note that data is discussed in Chapter 17.)

Please share your views below

- (1) No. Software that would materially impact the driving task should pass through an international type approval process as this process is more stringent. For this to happen, there must be specific definitions and agreement on what updates would “materially impact the driving task.” A potential side effect, however, is that this

may delay the process of the installation of critical safety updates and improvements and we require more clarity about the type approval process for software updates.

There should also be a UK-specific assessment to certify that these software updates continue to be in compliance with UK roads.

If experience shows that this is unworkable in the future (too many software updates and a lengthy and laggard type approval process) then alternate authorities within the UK should be considered. However, at this time, we would still support an international type approval process.

(2) Yes. Cybersecurity should be considered by the scheme.

(3) Yes. The regulator should have additional powers such as withdrawing a vehicle from legal use on the roads due to safety concerns.

Consultation Question 20

Should the authority administering the scheme to assure safety while automated vehicles are in use be kept separate from type approval authorities (as is already the case)? Alternatively, should both functions be combined in a single body?

Separate bodies Single body Other

Please expand on your answer

A separate body with power to influence international type approval. See previous comments relating to this regulatory body.

Consultation Question 21

What formal mechanisms could be used to ensure that the regulator administering the scheme is open to external views (such as duties to consult or an advisory committee)?

Please share your views below

Traditional engagement mechanisms including vehicle manufacturing bodies and automotive associations are valid channels of receiving and soliciting feedback.

Beyond these traditional methods, we cannot offer a view on what mechanisms could be used, other than to direct you to the example of Automotive Information Sharing & Analysis Center (Auto-ISAC). This is a consumer website providing information on vehicles, engendering consumer confidence and market transparency.

Consultation Question 22

We provisionally propose that a statutory scheme to assure AVs in-use should:

- (1) investigate safety-related traffic infractions (such as exceeding the speed limit; running red lights; or careless or dangerous driving);
- (2) investigate other traffic infractions, including those subject to penalty charge notices;
- (3) if fault lies with the ADSE, apply a flexible range of regulatory sanctions.

Do you agree?

Yes No Other

Please expand on your answer.

This needs to be an open and transparent arrangement to promote vehicle manufacturer safety upgrades and to build trust, rather than solely focusing on sanctions.

Consultation Question 23

We provisionally propose that the regulator which assures the safety of AVs in-use should have powers to impose the following sanctions on ADSEs:

- (1) informal and formal warnings;
- (2) fines;
- (3) redress orders;
- (4) compliance orders;
- (5) suspension of authorisation;
- (6) withdrawal of authorisation; and
- (7) recommendation of attendance at a restorative conference.

Please select the sanctions which you think the regulator should have powers to impose, leaving blank those which you do not think the regulator should be able to impose.

Please explain the reasons for your selection above.

Ideally, an environment around working together and collaboration should be developed. This would enable focus and faster resolution of design issue and could have less emphasis on punishment, and more on lesson learning and cooperation. This is a development area where everyone needs to learn together, for the greater good. However, there should be consideration taken about which methods would produce the best results. This needs to be pragmatic and we believe that the regulator should have access to all these tools to assure the safety of AVs, including more punitive measures.

Consultation Question 24

We provisionally propose that the legislation should provide the regulator with discretion over:

- (1) the amount of any monetary penalty; and
- (2) the steps which should be taken to prevent re-occurrence of a breach.

Do you agree?

Yes No Other

Please expand on your answer.

In reference to Question 23, we would like to see non-punitive measures used first if appropriate so to not hinder advancement and cooperation. However, in the case where a monetary fine is necessary, the amount should be commensurate to ensure that it is punitive and would not simply encourage the ADSE to pay the fine and not address the issue.

Consultation Question 25

We provisionally propose that a specialist incident investigation unit should be established:

- (1) to analyse data on collisions involving automated vehicles;
- (2) to investigate the most serious, complex or high-profile collisions; and
- (3) to make recommendations to improve safety without allocating blame.

Do you agree?

Yes No Other

Please expand on your answer.

Yes, this needs to be multi-disciplinary and cross functional. Key questions will remain about oversight as well as how this special incident investigation is funded.

We would like to use this opportunity to reinforce the need for ADS to collect data and for that data to be accessible. The findings of this specialist incident investigation unit should be made available to select parties. The rationale is to prevent overlap given that a large proportion of collision investigations are carried out by insurers. There also needs to be consideration for the investigation of smaller, less-serious collisions as a pattern of these incidents may pre-empt larger issues.

Consultation Question 26

We provisionally propose that the UK Government should establish a forum for collaboration on the application of road rules to self-driving vehicles.

Do you agree?

Yes No Other

Please expand on your answer.

No further comment.

Consultation Question 27

We welcome views on:

- (1) the issues the forum should consider;
- (2) the composition of the forum; and
- (3) its processes for public engagement.

Please share your views below

The behaviour of AVs should be as naturalistic and predictable as possible so that their behaviours fit in with the surrounding traffic and the road user infrastructure.

A diverse range of relevant stakeholders including road safety organisations, regulators, relevant Government bodies, emergency services, vehicle manufacturers, software engineers, data managers, insurers, etc. should be represented.

Both public engagement and transparency are necessary, and information should be properly signposted and freely available.

Responsibilities of the user-in-charge (Chapter 12)

Consultation Question 28

We provisionally propose that that the user-in-charge:

- (1) should be defined as an individual in position to operate the controls of a vehicle while an ADS is engaged and who is either in the vehicle or in direct sight of the vehicle; and
- (2) is not a driver while the ADS is engaged, and would not be liable for any criminal offence or civil penalty (such as a parking ticket) which arises out of dynamic driving.

Do you agree?

Yes No Other

Please expand on your answer.

(1) No. We believe the user-in-charge needs to be able to operate the vehicle. For example, how would you apply this concept to automatic valet parking, where the vehicle is operating out of sight? Depending on how data is collected, the definition could be expanded so that the user-in-charge would have to be identified by the vehicle (similar to someone logged in to a system). Clearer definitions here would be useful.

(2) Yes.

Consultation Question 29

We provisionally propose that following the end of the transition demand period:

- (1) the user-in-charge should re-acquire the legal obligations of a driver, whether or not they have taken control of the vehicle; and
- (2) if, following a failure to respond to a transition demand, the vehicle stops in a manner which constitutes a criminal offence, the user-in-charge should be considered a driver and should therefore be liable for that offence.

Do you agree?

Yes No Other

Please expand on your answer.

(1) No. There is legal obligation for the user-in-charge to take control of the vehicle following a transition demand. However, this may not always be possible. We would like to reemphasise our calls for ADS to be required to change lanes and seek safe harbour on a shoulder or side of the road. It is not enough for a system to simply stop in lane.

Of course, there will be individual exceptions such as if the user-in-charge is incapable of taking back control (i.e. medical emergency). This is where data will be important, and it will be discussed in more detail in the response to Question 56.

- (2) No. This appears to be unenforceable and in parallel with point (1) there would be a requirement to prove negligence on the part of the user-in-charge on a case-by-case basis.

We do not think it should be possible for an automated vehicle to come to a halt in a manner which endangers its occupants or other road users. Therefore, point (2) may be a moot point.

Consultation Question 30

We seek views on whether a person with a provisional licence should be allowed to act as a user-in-charge, if accompanied by an approved driving instructor in a vehicle with dual controls.

Please share your views below

We believe that a person with a provisional license should be allowed to act as a user-in-charge in very limited cases with a licensed instructor with dual controls that is familiar with the ADS. It is important that provisional drivers are taught how to use an ADS, but this should only come after the basic driving task has been mastered. ADS, in this case, should only be engaged after the instructor assesses that the provisional driver is capable of driving fundamentals and can safely respond to a transition request.

On a related note, there may be a point in the future where the function or role of driving licenses needs to be reviewed.

Consultation Question 31

We provisionally propose that legislation should create new offences of:

- (1) using an automated vehicle as an unfit or unqualified user-in-charge; and
- (2) causing or permitting the use of an automated vehicle by an unfit or unqualified user-in-charge.

Do you agree?

Yes No Other

Please expand on your answer.

Yes. The user-in-charge will need to be capable of responding to a transition demand. Therefore, the user-in-charge should be able and fit to drive a non-automated vehicle.

Consultation Question 32

We provisionally propose that persons carried without a user-in-charge should be guilty of a criminal offence.

Do you agree?

Yes No Other

Please expand on your answer.

While in principle, it is important to ensure that there is a capable user-in-charge, a broad provision could result in unintended consequences. This is especially true as it relates to Question 30. What if passengers do not know that the user-in-charge is unfit to drive? This would especially be troubling if children were guilty of a criminal offense for the inappropriate actions of an adult. Another example is that it may be quite difficult for a passenger to tell if a driver is potentially over the legal blood alcohol content limit.

We are not against this idea if there is an appropriate claims investigation processes (potentially enabled by access to data) that could accurately assess the role of passengers. It would be important for contributory negligence to be applied where those being carried were aware that the user-in-charge was unfit, while understanding that this could be quite difficult to prove.

Consultation Question 33

We seek views on whether the new proposed offence of being carried without a user-in-charge should only apply if the person:

- (1) knew that the vehicle did not have a user-in-charge; and
- (2) knew or ought to have known that a user-in-charge was required.

Please share your views below

This would address some concerns highlighted in Question 32. However, there may still be an instance where an individual, such as a child, is aware of the user-in-charge requirement, but cannot refute the individual, such as an adult, that is in a position of authority.

Consultation Question 34

We provisionally propose that a user-in-charge who takes over control of the vehicle:

- (1) should be considered a driver; but

- (2) should have a specific defence to a criminal offence if, given the actions of the ADS, a competent and careful driver could not have avoided the offence.

Do you agree?

Yes No Other

Please expand on your answer. If you do not agree with the proposal, we welcome your views on alternative legal tests.

Yes. We believe that the user-in-charge should be considered a driver and should have a specific defence to a criminal offence if, given the actions of the ADS, a competent and careful driver could not have avoided the offence. This could be managed in a similar way to a no-fault accident.

In the case of a user-in-charge taking an inappropriate evasive action, there needs to be further analysis into assigning fault. Therefore, issues surrounding data collection and retention (discussed in Question 56) are of significance.

In the case of AVs turning the wrong way down a one-way street and the user-in-charge correcting the error, the user-in-charge should not be at fault. In this case, fault may need to be assigned to the ADSE.

If not, we welcome views on alternative legal tests.

Consultation Question 35

We provisionally propose that the user-in-charge should be liable for criminal offences which do not arise from the dynamic driving task, including those related to:

- (1) insurance;
- (2) maintaining the vehicle in a roadworthy condition (including installing safety critical software updates);
- (3) parking;
- (4) duties following accidents to provide information and report accidents to the police; and
- (5) ensuring child passengers wear seatbelts.

Do you agree? *(please tick one of the following)*

Yes, the user-in-charge should be liable for all offences not arising from the dynamic driving task

No, the user-in-charge should not be liable for any offences

The user-in-charge should be liable for some but not all of the offences listed

Other

Please expand on your answer. If you indicated that you think the user-in-charge should be liable for some but not all of the offences which do not arise from the dynamic driving task, please indicate which offences you think the user-in-charge should be liable for.

We believe that the user-in-charge should be liable for criminal offences related to insurance and ensuring child passengers wear seatbelts.

The user-in-charge should have a duty following accidents to provide information and report accidents to the police if they are aware of the occurrence. A user-in-charge may not always be aware of an accident if the ADS is engaged and they are occupied with a secondary task. Regardless, the user-in-charge should have an obligation to grant access to vehicle data and camera footage.

On maintaining a vehicle's roadworthiness, the user-in-charge should be similarly responsible to a driver of a non-automated vehicle and ensure that various hardware parts of a vehicle are in working order. Regarding software, a user-in-charge should be responsible for installing critical safety software updates but whether or not criminal liability should be assigned will depend on the resulting magnitude of the issue if the security update is not actioned. With that being said, there is a question about who is in charge of ensuring proper updates. For example, the driver of a hired or company vehicle may not have the authority to perform such updates. In such cases, the entity in charge of the vehicle should be liable for criminal offenses related to software updates.

Furthermore, a difficulty also arises where the owner of a vehicle has a legitimate reason to not want to install a software update. Or, in this case, it could give VMs sweeping authority to alter the vehicle in certain ways by inserting extraneous code into a critical software update. This is especially challenging depending on the type approval process for software and the definition of that software counts as "material to the driving task". We would also like to reference the ongoing "Right to Repair" movement and difficulties associated if applied to software updates.

We would also call for the development of some form of "digital MOT". This system could identify software-related changes that are material to the driving task and could apply to all systems across various VMs. While it obviously presents its own challenges, it would also make enforcement significantly easier.

While the user-in-charge should undoubtedly be responsible for parking in a manual driving mode, technology already exists to enable self-parking out of the line of sight of the user-in-charge. In such cases, if an issue related to parking arose, it may be worth exploring where the liability rests especially if it results from any problems relating to software or with the parking infrastructure itself.

Consultation Question 36

We provisionally propose that the legislation should include a regulation-making power to clarify those roadworthiness failings which are (and those which are not) the responsibility of the user-in-charge.

Do you agree?

Yes No Other

Please expand on your answer.

As the sophistication of AVs develop, the requirements for roadworthiness will change – especially on the software side. Therefore, we believe that there should be a regulation-making power to clarify roadworthiness failings as the technology advances.

Remote operation: no user-in-charge vehicles (Chapter 13)

Consultation Question 37

We provisionally propose that:

- (1) where an individual is exercising latitudinal and longitudinal control (steering and braking) over a vehicle remotely, that should not be regarded as a form of “self-driving”; and
- (2) where lateral and longitudinal control are exercised by an ADS, all other forms of remote operation should be regulated as “self-driving”.

Do you agree?

Yes No Other

Please expand on your answer.

(2) Should be regulated as “remote driving”. Since the external monitoring function would be responsible for the driving or intervention. This is typically an organised function. We ask for clearer definitions here especially in the case of self-parking vehicles as discussed in Question 28.

We welcome views on whether the current definition of when a vehicle “drives itself” under the Automated and Electric Vehicles Act 2018 should be amended to deal with some forms of remote operation which may involve a degree of “monitoring”.

Please Share your views below.

We believe the AEVA needs to be amended to deal with this scenario. In addition, we believe the regulation of self-driven versus remotely driven vehicles needs to be split and carefully clarified. Please see Question 29 for the requirement to find safe harbour to be included in the definition of a vehicle that “drives itself.”

Consultation Question 38

We provisionally propose that:

- (1) the regulation of self-driving vehicles should distinguish between an Automated Driving System Entity (which vouches for the design of the system) and an operator (responsible for the operation of individual vehicles);
- (2) all vehicles authorised for use on roads or other public places with no user-in-charge should either:

- (a) be operated by a licensed operator; or
 - (b) be covered by a contract with a licensed operator for supervision and maintenance services;
- (3) it should be a criminal offence to use a NUIC vehicle on a road or other public place unless it is operated by a licensed operator or is covered by a contract with a licensed operator for supervision and maintenance services.

Do you agree?

Yes No Other

Please expand on your answer.

While we agree with these regulations should be put in place initially, they will likely need to be revisited when NUIC vehicles become more advanced and a private citizen can make use of the technology safely.

(6.12) Within the preceding text: for UIC vehicles (passenger cars) this responsibility falls mostly with the Vehicle Manufacturer. The same thing should apply here. Depending on the ownership and operation structure there will be cybersecurity responsibilities for the owner, manufacturer, and licenced operator.

Consultation Question 39

We welcome views on whether NUIC operators should be required to demonstrate professional competence through a safety management system, as set out in a safety case.

Please share your views below.

Agree.

Consultation Question 40

We provisionally propose that, irrespective of the nature of the vehicle, a licensed operator should be under a duty to:

- (1) supervise the vehicle;
- (2) maintain the vehicle;
- (3) insure the vehicle;
- (4) install safety-critical updates and maintain cybersecurity; and
- (5) report accidents and untoward events (as defined by the regulator).

Do you agree?

Yes, a licensed operator should be subject to all the listed duties

- No, a licensed operator should not be subject to any of the listed duties
- A licensed operator should be subject to some but not all of the listed duties
- Other

Please expand on your answer. If you think a licensed operator should be subject to some but not all of the listed duties, please indicate which listed duties you think should be placed on a licensed operator.

<p>(1) Yes. At least initially.</p> <p>(2) Yes.</p> <p>(3) Yes.</p> <p>(4) Yes. However, this should complement, not remove, the duty of the vehicle manufacturer with regards to cybersecurity.</p> <p>(5) Yes. However, strict guidelines and thresholds should be set as to prevent a requirement for immaterial events from being reported (e.g. striking a small piece of debris). Not only should they report material accidents, but they should also have an obligation to provide relevant data to authorities and other related parties.</p>
--

Consultation Question 41

We provisionally propose that legislation should include a regulation-making power by which some or all of these duties could be transferred to the registered keeper or owner, if it was shown that it was appropriate to do so.

Do you agree?

Yes No Other

Please expand on your answer.

<p>Yes, we believe that eventually there will be a desire for private use of these vehicles. Therefore, it would be prudent to have legislation in place to respond to these changes, as long as it is safe to do so.</p> <p>We would like further clarity about whether the transfer of duties will be mandated at a specific point or if it will occur on the back of a request to transfer duties. We also suggest that the phrase “appropriate to do so” is vague and would like guidance to be set.</p> <p>With that being said, we believe the technology for widespread use of NUIC will not be available in the near future. A further analysis will be needed once we have a better understanding of the systems and technology.</p>

Consultation Question 42

We welcome views on how accessibility standards for Highly Automated Road Passenger Services (HARPS) might be developed.

Please share your views below

Please refer to our answer in Question 6.

We provisionally propose that:

- (1) an accessibility advisory panel should be formed to include:
 - (a) the Equalities and Human Rights Commission; and
 - (b) representative groups for disabled and older persons;
- (2) the Secretary of State should be obliged to consult with the accessibility advisory panel prior to setting any national minimum standards on HARPS;
- (3) there should be a duty to periodically re-consult the accessibility advisory panel at set intervals to ensure requirements keep pace with developing evidence of technical feasibility and changing needs.

Do you agree?

Yes No Other

Please expand on your answer.

While we agree in principle, please refer to our answer in Question 6.

We welcome views on what the set interval for periodically re-consulting the accessibility advisory panel should be.

Please share your views below

We do not have specific recommendations but believe that periodical re-consulting must occur more frequently at the beginning stages of the development of these technologies.

Consultation Question 43

We welcome views on who should administer the operator licensing scheme.

Please share your views below

Our first consideration would be that this would fall under DVLA and DVSA. Though we are open to the idea of a new branch or organisation being developed.

CHAPTER 14: CRIMINAL OFFENCES BY ADSES AND THEIR SENIOR MANAGERS

Consultation Question 44

We provisionally propose that:

- (1) it should be a criminal offence for an ADSE to omit safety-relevant information or include misleading information when putting a vehicle forward for classification as self-driving or responding to information requests from the regulator;
- (2) the offence should apply to senior managers (where it was attributable to the manager's consent, connivance or neglect);
- (3) the offence should not apply to more junior employees;
- (4) the offence should carry a higher sentence if it is associated with a death or serious injury;
- (5) the offence should be prosecuted in England and Wales by either the regulator or the Crown Prosecution Service and in Scotland by the Procurator Fiscal.

Do you agree?

Yes No Other

Please expand on your answer.

- (1) Yes. We believe the sanction should also be greater if it can be proved that there was an intention to mislead, rather than as a result of an honest mistake.
- (2) Yes.
- (3) Yes, to a degree. While the onus should largely rest on senior managers, wilful omission, or purposeful dissemination of misleading information by junior employees should not preclude repercussion. With that being said, it is important not to create a system where junior employees end up taking the blame for the decisions of senior employees.
- (4) Yes.
- (5) Not for Thatcham or the ABI to answer.

As a caveat to our responses here, we seek more careful differentiation between criminal offences and negligence. The difference here may impact the ability of insurers to rightfully seek subrogation.

Consultation Question 45

We seek views on the following proposed offences.

Offence A: non-disclosure and misleading information in the safety case

When putting forward a vehicle for classification as self-driving, it would be a criminal offence for the ADSE to

- (1) fail to provide information to the regulator; or
- (2) provide information to the regulator that is false or misleading in a material particular

where that information is relevant to the evaluation of the safety of the ADS or the vehicle.

The ADSE would have a defence if it could show that it took reasonable precautions and exercised all due diligence to prevent the wrongdoing.

The penalty would be an unlimited fine.

Offence B: non-disclosure and misleading information in responding to requests

When a regulator requests specific information from an ADSE (whether before or after deployment), it would be a criminal offence for the ADSE to

- (1) fail to provide information to the regulator; or
- (2) provide information to the regulator that is false or misleading in a material particular

where that information is relevant to the evaluation of the safety of the ADS or the vehicle.

The ADSE would have a defence if it could show that it took reasonable precautions and exercised all due diligence to prevent the wrongdoing.

The penalty would be an unlimited fine.

Offence C: offences by senior management

Where offence A and/or offence B committed by a body corporate is proved—

- (1) to have been committed with the consent or connivance of an officer of the body corporate; or
- (2) to be attributable to neglect on the part of an officer of the body corporate,

then that officer is guilty of the offence.

An officer includes any director, manager, secretary or other similar officer or any person who was purporting to act in any such capacity.

We see this as equivalent to offences under the Human Medicines Regulations 2012 and General Product Safety Regulations 2005, which carry a penalty of a fine and/or a maximum two years' imprisonment.

Offence D: aggravated offences in the event of death or serious injury following non-disclosure or provision of misleading information to the AV safety regulator

Where a corporation or person commits Offences A to C, that offence is aggravated where the misrepresentation or non-disclosure:

- (1) related to an increased risk of a type of adverse incident; and
- (2) an adverse incident of that type occurred; and
- (3) the adverse incident caused a death or serious injury.

We see this as equivalent to the offence of causing death by dangerous driving, which carries a penalty of an unlimited fine and/or a maximum of 14 years' imprisonment.

Please share your views below

While these proposed offences all seem logical, it would be important to have an opportunity to review on a case-by-case basis. At this point, we would defer to legal organisations who are better able to respond to this question.

Consultation Question 46

We welcome views on whether an ADSE should be under a duty to present information in a clear and accessible form, in which safety-critical information is indexed and signposted.

Please share your views below

Yes, we believe this is an organisational requirement.

New wrongful interference offences (chapter 15)

Consultation Question 47

We provisionally propose that legislative amendment should clarify that the tampering offence in section 25 of the Road Traffic Act 1988 applies to anything that is physically part of a vehicle and any software installed within it.

Do you agree ?

Yes No Other

Please expand on your answer.

While we think it should be an offence to tamper with anything that is physically part of a vehicle, there needs to be clear thresholds established. We understand not wanting to create exhaustive lists of parts that would fall under the legislation, but wording needs to reflect that tampering with a part material to the driving task is a serious offence. Therefore, the use of 'mechanism' in the RTA should include elements like sensors.

Similarly, the use of 'mechanism' should also be amended to reflect non-physical assets. These delineations should be made when referencing software. As the consultation notes, there is no definition for tampering. Therefore, it would be unreasonable to group a modification of an infotainment system with purposeful interference of a key driving system.

We would also like to ensure that there is a set of offenses covering an owner's tampering of their own vehicle such as software-based performance upgrades.

For this to occur, the ADSE may need to identify and clearly indicate which elements are critical to the driving task and should not be tampered with in any way.

Consultation Question 48

We welcome views on whether the tampering offence should apply to external infrastructure required for the operation of the AV.

Please share your views below

Yes, we believe the tampering offense should apply to external infrastructure given the integral role that relevant infrastructure has in the safe operation of AVs. However, there should be clarity to ensure that tampering with infrastructure does not overlap with existing offenses. There needs to be a keen analysis of proportionality and intent because, depending on the wider system, tampering with one piece of infrastructure could have far reaching consequences.

Consultation Question 49

We provisionally propose that there should be an aggravated offence of wrongfully interfering with an AV, the road, or traffic equipment contrary to section 22A of the Road Traffic Act 1988, where the interference results in an AV causing death or serious injury, in:

- (1) England and Wales; and
- (2) Scotland.

Do you agree?

- Yes, in both England and Wales and Scotland
- In England and Wales only
- In Scotland only
- In neither jurisdiction

Please expand on your answer.

Contractors must be approved and skilled in maintaining essential equipment. Wilful damage, interference, tampering, vandalism, etc. should carry criminal charges.

The precedent from other modes of transport could be utilised to establish parameters. We defer to legal entities to provide a comprehensive response.

Consultation Question 50

We provisionally propose that the appropriate mental element for the aggravated offence is intent to interfere with a vehicle, the road or traffic equipment.

Do you agree?

Yes No Other

Please expand on your answer.

Premeditated action should be proven and punished accordingly.

Proportionality is important: we see a situation which could occur where the intent is to hack an individual's personally identifiable information, but in the process, alters software that is material to the driving task.

Consultation Question 51

We seek views on whether an approved work defence for repair or maintenance operations authorised by a vehicle manufacturer or Automated Driving System Entity is desirable.

Please share your views below

Vehicle manufacturers must specify how the systems are maintained and checked as a part of routine maintenance or repair to ensure the system is still safe and operating as required. There should be an approved work defence for repair or maintenance if they are authorised by a VM or ADSE and properly following that guidance, but this would not be a defence for the VM or ADSE if there was an issue with the guidance that was issued.

Civil liability (Chapter 16)

Consultation Question 52

We provisionally propose that the way the Automated and Electric Vehicles Act 2018 deals with contributory negligence and causation is:

- (1) adequate at this stage; and
- (2) should be reviewed by the UK Government in the light of practical experience.

Do you agree?

Yes No Other

Please expand on your answer.

In our response to CP 1, we stated:

“The insurance industry has always viewed the Automated and Electric Vehicles Act 2018 as an important first step in providing the right framework to facilitate the rollout and uptake of automated driving systems. We accept that further changes to the legal regime may be necessary as this technology develops and a greater proportion of the population uses automated driving systems. Once insurers have had exposure to claims arising from the use of these vehicles, we will be in a better position to determine how well the contributory negligence provisions of the Act work in practice.”

Consultation Question 53

We provisionally propose that measures should be put in place to compensate the victims of accidents caused by uninsured AVs.

Do you agree?

Yes No Other

Please expand on your answer.

We agree that there should be measures put in place to compensate the victims of accidents caused by uninsured AVs. This could potentially be done using existing statutory powers, but there may also be a role for ADSE to contribute to this fund.

In conjunction, the Government needs to do more to police and regulate this space.

Consultation Question 54

We provisionally propose that:

- (1) product liability law should be reviewed to take account of the challenges of emerging technologies.
- (2) any review should cover product liability as a whole, rather than be confined to automated vehicles; it should not, therefore, form part of this project on automated vehicles.

Do you agree?

Yes No Other

Please expand on your answer.

Product liability law needs to be reviewed and amended as necessary and it should be included in this process. It is intrinsic to the effective and transparent legislative context which insurers will be operating in and is therefore also important to the premium paying consumer.

Something to consider is that under the RTA, unlimited liability is required for injury while product liability does not provide that limit. Could this result in the negligent party being unable to meet their civil liabilities and potentially going into liquidation?

Access to data (Chapter 17)

Consultation Question 55

We provisionally propose that:

- (1) for a vehicle to be classified as self-driving, it needs to record the location as well as the time at which the ADS is activated and deactivated.
- (2) the Government should work within the UNECE to ensure data storage systems for automated driving record these data; and
- (3) any national system to approve an ADS should require these data to be collected, subject to safeguards.

Do you agree?

Yes No Other

Please expand on your answer.

Insurers must have access to enough information to establish whether a vehicle's system or a human driver was in control should an accident occur. If insurers are unable to access this data, the provisions of the Automated and Electric Vehicles Act 2018 will be unworkable in practice. The current regulatory gap regarding data standards and access to in-vehicle data must be addressed if the Government wants to harness the benefits of new transport technologies. The Law Commission should explore the option of amending the Automated and Electric Vehicles Act 2018 to make the capturing, storage, and transfer of this data mandatory.

Access to data is also incredibly important when assigning legal liability, the lack of which could have far reaching consequences for insurers and individuals.

The lack of appropriate location data and corresponding timestamps will also leave room for fraud. The associated increase in cost of investigating fraudulent claims will only serve to harm regular customers.

The reliance on data will inevitably grow as AVs mature and the user-in-charge is less involved in the overall driving task.

There must also be established ways to access relevant data without accessing personal, protected, or non-related data. We once again need to ensure that this data is properly collected and stored in a neutral third-party. As we have seen in the past, there have been instances where VMs have been incentivised to intentionally obscure data.

Consultation Question 56

We provisionally propose that legislation should impose a duty on those controlling AV data to disclose data to insurers, where the data is necessary to decide claims fairly and accurately.

Do you agree?

Yes No Other

Please expand on your answer.

Data should be made available to insurers free of charge, without the need to obtain court orders, and stored by a safe and neutral third-party. Insurers have identified a minimum of seven data items which need to be captured, for every collision, in the "[Defining Safe Automated Driving](#)" document. These are, namely: GPS-event time stamp; activation status of each automated driving feature, driver acceptance between automated/manual mode time stamp; record of driver intervention of steering, braking, accelerator or gear-shift; driver seat occupation; user engagement commenced; has Minimum Risk Manoeuvre (MRM) been triggered; and system status (linked to fault code). The technology fitted needs to be able to achieve this.

We would also like to suggest that data sharing should be extended for the purposes of dealing with first- and third-party fraud and criminal activity.

Consultation Question 57

We provisionally propose that:

- (1) initially, DSSAD data from self-driving vehicles should be stored for three years; and
- (2) the issue should be reviewed in the light of experience.

Do you agree?

Yes No Other

Please expand on your answer.

Yes, again this comes back to the requirement for a neutral server. The MIB have previously proposed that the data should be proactively sent directly from the vehicle via telemetry. A request for data should not be required.

While three years is a good start, we believe that data should be held for even longer. Some symptoms from certain injuries, like whiplash, can persist and even get worse over a period of years.

We understand that the threshold for three years is derived from the maximum amount of time to file a personal injury claim. However, for minors and other protected parties, the maximum time could be a lot longer and will need to be reflected in the access to data.

Consultation Question 58

We provisionally propose that:

- (1) when an ADSE applies for categorisation of its vehicle types as self-driving, it should present the regulator with details on how data will be recorded, stored, accessed and protected.
- (2) the regulator should only categorise a system as self-driving if it is satisfied that that the ADSE has systems to abide by its obligations under the GDPR.

Do you agree?

Yes No Other

Please expand on your answer.

No further comment.