

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.

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About you

What is your name?

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What is the name of your organisation?

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

Personal response

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

Consultation Question 1

We provisionally propose that:

- (2) a vehicle should not be classified as self-driving if, with the ADS engaged, the user-in-charge needs to monitor the driving environment, the vehicle or the way it drives;
- (3) 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;
- (4) 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

For reasons already set out in our previous two responses to the Law Commissions in this consultation series as well as our response to CCAV of 27 October 2020 in respect of ALKS and our work and that of our partners on the VENTURER project:

- We agree that available evidence does not currently support the proposition that a system is safely driving itself if it relies in a safety-critical way on active monitoring by a user-in-charge. Consequently, such vehicles do not appear to meet the statutory definition of an automated vehicle in the Automated and Electric Vehicles Act 2018 and should not be listed as such by the Secretary of State. If research and evidence to the contrary were to become available, the basic wording in AEVA would allow that fundamental safety requirement to be reviewed at any time in respect of any vehicle.
- We agree that it is not incompatible for an automated vehicle to request a handover to a human driver and indeed this would be a standard operational requirement (planned or otherwise) for example where conditions may approach the limits of a system's ODD.
- We agree with and support the need for further research and potentially development of standards as to how best to effect handover safely and effectively using a range of sensory prompts. Given that users-in-charge may experience a

number of different vehicles and systems, this seems to us to be area where standards and specifications would assist.

- We agree that – as with many human-operated heavy machinery and systems – automated vehicle systems must incorporate fail-safes including ability to achieve a minimum risk condition (MRC) without human assistance if none is forthcoming. That minimum risk condition may plainly depend on the specific circumstances and we do not say that a single minimum risk manoeuvre (MRM) will always be appropriate. Manoeuvres and measures available to the system should encompass those typically expected of human drivers. They may also include additional mitigations such as real-time communication of status and warnings to other drivers and traffic or emergency authorities.

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 agree the observation that current driving laws permit people with hearing loss to hold a driving licence and to drive. Indeed there is no requirement to even inform DVLA of hearing loss conditions unless an individual drives a bus, coach or lorry.

In the circumstances, people with hearing loss would be as qualified as any other qualified driver holding a licence and capable of being a user-in-charge of an automated vehicle on that basis.

There is no research that we are aware of that would suggest that those with hearing loss would be any less able to meet the requirements of a user-in-charge (as proposed) as any other driver.

Preventing those with hearing loss from being a user-in-charge in either their personal capacity or in the course of their employment would shut those people out of the transport and employment opportunities such vehicles would offer and would potentially breach equality legislation as regards transport providers and employers.

So far as design of automated vehicle systems goes, and particularly if handover is not intended to be safety-critical (in the sense that the vehicle can and will achieve MRC even without effective handover), then accessibility enhancements should be part of the technology interface and system design so that the human machine interface can adapt to those with special requirements. We consider for example that accessibility options should be part of considering specifications and standards for handover.

This particular aspect raises the related issue of sensitive personal data required for ADS functionality and how that is gathered, protected and used by ADSEs.

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

Per our previous responses to the Law Commissions on this series, we consider that the AEVA requires the Secretary of State to take this decision, relying on their own advice. It would appear to us to be appropriate given the technical issues involved for the Secretary of State to take into account advice from any specialist safety regulator for AVs to justify that decision.

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

As the consultation paper correctly observes, safety has different contextual applications. It serves different purposes in different contexts, including variously as a measurement, a process or a threshold.

Because safety can involve, in those different contexts, mixtures of objective and subjective factors it is notoriously difficult and sensitive to pin down. As the paper also correctly states, observable harms to people result in greater reactions than the invisible effects of greater numbers of lives saved or injuries avoided. Whilst that is a logical and understandable human reaction, it makes it ferociously difficult to arrive at a single safety measure that will serve multiple different system purposes.

Because the legal regulation of safety is a key part of the overall system, it needs to be analysed on a system design basis. Looked at through that lens, **different tests and approaches are required to achieve different system, and system safety, objectives.** Each clearly need to be consistent with the other as part of an overall system design. However, if a single approach and measure is attempted, that will create irreconcilable

tensions and unintended adverse effects both in terms of the safety of the system and its effectiveness as a transport solution (including loss of many of the benefits intended to be achieved).

The standards and underlying safety methodologies used to approve vehicles for use operationally, and to track and monitor overall levels of safety at a system level, raise different issues to the question of criminal culpability, enforcement and punishment at an individual incident level. They need to be consistent but they are different mechanisms designed to achieve different outcomes.

Societies and legal systems, globally, find it incredibly challenging to analyse and deal logically with that conceptual split between overall safety (or health) outcomes and responses to individual incidents/adverse events. They also struggle to balance, or deal coherently with, different kinds of risk and benefit as against each other.

This structural tension and dislocation has been a very apparent, for example, in the current global pandemic. Balancing serious, and acute, harms is complex but it is not theoretical. Risk is not one-dimensional; approaches which are on their face presented as a 'precautionary' or 'lower risk' approach can perversely generate greater overall harms – they are in reality higher risk. Examples have been recently seen in the application of the Precautionary Principle (which is a concept underpinning EU health and safety directives) to the temporary suspension of use of the AstraZeneca vaccine, and in the impacts that reorienting a health system to deal with one acute threat has upon other health outcomes. These are sensitive and incredibly difficult issues for policymakers with no easy solutions. They do however illustrate – as the paper observes – that well-intentioned but one-dimensional measures badged as having a precautionary safety intent can have a greater overall safety dis-benefit: more people being hurt or killed than if a more objective risk-based approach were to be taken.

The key lies in the distinction between Hazard-based approaches and risk-based approaches. The distinction term between hazard and risk is the issue, and effective use, of probability. The law (particularly the criminal law) recognises the conceptual importance of probability in system design and approval **before** use but struggles with its application **after** the occurrence of an adverse event.

EU law (and the genesis of the concept of punitive civil tort damages in the US) take a fundamentally hazard-based approach. Bad outcomes are to be avoided as, in effect an absolute legal obligation other than in '*unforeseeable or exceptional*' circumstances¹, with probability for example either being impermissible as a factor in achieving that outcome (EU) or aggravating factor in the assessment of damages (US). The former can be seen for example in the unsuccessful attempted European Commission infraction proceedings against the UK², challenging as unlawful under EU law the use of any probability factors in the reasonable practicability test.

This tension between hazard and risk based approaches leads to legal and regulatory cognitive dissonance. Probability is embedded by necessity into the design of every complex

¹ Art 5(4) of Directive 89/391. The whole purpose of prospective risk assessment is of course to anticipate both circumstances and their likelihood.

² *Commission v United Kingdom 2007* (Case C-127/05) 2007 ECR I-4619

system. An oil refinery, a power station, an aircraft or a transport technology system cannot be designed without working out the potential harms that may result, the probability of those harms eventuating, and the measures necessary to control them. Those are steps which are a fundamental part of the risk cycle

In the UK that reality is reinforced by regulatory guidance which approves the role of probability in complex quantitative as well as qualitative risk assessment.

Probability can only be assessed, by definition, with foresight. In contrast, criminal investigation and enforcement are pursued with the benefit of hindsight. At that point, even though an event may be, for example, a one in a million or one in 10 million event, it has occurred.

Judges and juries are not usually risk or systems specialists by background or training. Further, accident theory (for example see the work of Prof James Reason³) reinforces that adverse outcomes tend to result from combinations of human error (which can either be in design or operation) - **active failures**; and events which may or may not have been modelled as a probability - **latent conditions**. The net result is that at the point of enforcement and punishment, probability - and therefore the prudent advance assessment of risk - tends to form little or no part of the debate and the punitive response. The focus tends to be on the outcome.

This also plays out in the civil cases that depend upon safety legislation - for example in the 2020 case of **Walsh v CP Hart** cited by the consultation paper at paragraph 3.20 and footnote 1019 of Appendix 3. The Commissions perceptively (and we believe correctly) conclude⁴ at Paragraph 3.34 of Appendix 3 that:

3.24 Our conclusion is that section 3 does not require the duty-bearer to take disproportionate steps.¹⁰²⁵ However, the standard is onerous. It is also uncertain. When faced with a tragic case, juries might react emotively, without appreciating the inherent risks of all motor transport, including AVs.

That conclusion reached by the Commissions is not one that is shared by UK safety regulators including the HSE and the Office of Rail and Road. The affirmed position of regulators is that the '*grossly disproportionate*' formulation extracted from *Edwards v NCB* is the bedrock of the criminal law in relation to safety and that proportionality of approach does not suffice to meet legal obligations.

This conclusion of the High Court in **Walsh** in 2020, consciously overruling a lower court which had preferred an approach based on proportionality and risk foresight, was itself squarely at odds with the careful conclusion reached by the Commissions:

40. The second question concerns whether the safety measure in question, namely instructing employees only to work or remain in the back of the van if the tail gate was in the raised position was, "reasonably practicable" within the meaning of the regulation. In this regard, in my judgment, the

³ See for example: <http://aerossurance.com/helicopters/james-reasons-12-principles-error-management/>

⁴ In relation to S3 HSWA 1974

learned Judge did misdirect himself. The learned Judge found that all the court is required to do is to carry out a balancing exercise and decide whether it would not have been proportionate to give the instruction to the employees rather than consider whether to have given such an instruction would have been grossly disproportionate.

The qualitative tendency of a Judge or Jury to wish to be seen to be “*erring on the side of safety*”, informed by hindsight, is understandable. However, that human tendency is flawed as it is not a balancing of harms: it can increase harms through other unintended effects: the other factors identified by the consultation paper also come into play. For example making a CAV system slow or frustrating is likely to trigger unsafe behaviours⁵.

It is counter-productive therefore – in safety and in system effectiveness - to produce a punitive sanction which is amplified by reference to the outcome, and societal perception of the level of control or other subjective factors of the activity, rather than by the objective scale of the risk identified in advance.

It is clearly right and necessary that there is an effective criminal justice system response to behaviours and actions identified in advance as wrong and therefore culpable. However, if a single standard of safety is seen as being achievable both to define the overall level of system safety and every element of criminal sanction (and potentially also the trigger for civil compensation), that would be unrealistic.

In a connected and automated system complex probabilities clearly need to be designed in advance, by foresight only. Further, those probabilities are not linear. They will be informed by AI systems and by algorithmic decision-making dynamically by the system itself. That system design will, as the consultation paper rightly identifies, need to contemplate as permissible and accepted level of adverse outcome, statistically, in order for the system to function as a transport system. Further, if the design parameters of the system are structurally too “risk averse”, paradoxically more people are likely to be killed and injured because of the human responses to the constraints that that creates. In other words a system designed on an overly restrictive precautionary principle will hurt more people, as well as being far less effective for its purpose of mobility for people and goods.

The most effective – and safest - solution therefore lies in disaggregating:

- (a) The requirements formulated and embedded in regulation for the approval, and then the system monitoring of compliance, of overall levels of design safety (which monitoring will then lead to updates and refinements in those requirements).

From

- (b) The component elements of the criminal offences relating to adverse outcomes.

It is not logical to construct the former (overall criteria for system approval and operation, then monitoring) against a standard structured by reference to human behaviour. The

⁵ As the Commissions correctly observe at paragraph 5.88 onwards and specifically at para 5.101

consultation paper correctly states that complex engineering systems and humans start from a different place and “*make different mistakes*”⁶.

At a system level, **a combination of different criteria could be used for approval and monitoring based upon, for example; overall levels of predicted, then actual, harm and adverse outcome based on modelling, required system behaviours against different predictable operational use cases** with the potential to cause injury or damage, and system response in the event of failure. On this for example the recent work by AESIN on cyber resilience is informative. It requires both robustness (protection against attack failure) and resilience (the design response of the system when it is attacked and, as a statistically inevitable, suffers an initial failure).

Failure to achieve required aggregated system KPIs over specified periods could then be addressed (and where relevant sanctioned) by regulatory interventions such as licence conditions, mandated improvements, public and industry censure or fines. Those would be built into the design of the regulatory approvals and monitoring system.

Enforcement following specific incidents leading to actual or potential harm in contrast should be done by reference to specific offences. The design and wording of those offences would logically specify as unlawful:

- (a) Failure of the system to operate in accordance with its permitted design parameters⁷ or safety case (which would by definition be an exercise in analysis against parameters/risk assessment carried out in advance);

- (b) Human or other operational delivery failings

This would not therefore be a return to the failed ‘prescriptive’ rules based approach that existed prior to the 1972 Robens review. Rather it would judge, in terms of criminal liability, a system against its permitted safety envelope with foresight not hindsight.

The design of the regulatory system and criminal offences respectively can achieve a much better outcome by intelligent separation (but harmonisation) of different benchmark concepts.

⁶ Para 5.37

⁷ This element should draw heavily upon the safety envelope principles set out at paragraphs 5.53 to 5.59 of the Consultation Paper.

Consultation Question 5

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

Please share your views below

For the reasons set out in the analysis in the consultation paper of the origins and uncertainties relating to reasonable practicability - deriving from its origins in superseded early twentieth century mining legislation - and lack of statutory definition, its use (without defining it in statute) would create significant safety and efficiency problems.

As a phrase it sounds attractively simple but it carries too much interpretational 'baggage'.

Alternative legal thresholds or terms should therefore be used to define, monitor and enforce respectively:

- Overall system safety requirements
- Specific incident offences

That approach would optimise a safe system, including the automated vehicles themselves, as it will provide clear legal parameters for safe design and operation

Please see response to Question 4 above.

If reasonable practicability is however to be used as a threshold terms within the definition of offences (or system safety approvals), it must be statutorily defined in the new legislation.

The reasons for these propositions, and adverse impacts that would result if reasonable practicability is used without definition/precision are summarised above under our response to Question 4, and below:

The phrase ***reasonable practicability*** in its current application derives from the HSWA 1974. That is an inspired piece of legislation that created a fundamental, successful, change from a prescriptive/input based approach to safety duties to the placing of obligations to reduce risk upon those generating the risks. It has saved many lives and avoided many injuries.

The HSWA unfortunately did not however define its keystone phrase (reasonably practicable). The HSWA was also (as its Robens Committee authors confirmed) never designed or intended to be a legal framework to regulate wider public safety beyond the workplace and its immediate interfaces.

As the Consultation paper accurately notes at Chapter 5 and Appendix 3, there is uncertainty and much legal debate deriving from the non-statutory 'gloss' as to whether actions must be grossly disproportionate in order for it to be legal not to take those

actions. ***Walsh v CP Hart*** illustrates that scope for uncertainty and different outcomes between different courts on the same facts.

Reasonable practicability is described as a *flexible* test. However, the uncertainty inherent in that – deriving from the lack of definition and debates as to different sentences in different judgments from a different era many decades ago in practice makes it possible for prosecutions and fines to derive from hindsight rather than foresight. Goalposts can move post event.

Further, whilst '*erring on the side of safety*' (which led to the use of the gross disproportion phrasing in *Edwards*, then in regulatory guidance) can appear to be a comforting and morally based judgment for courts or those formulating policy or legislation, its logic is flawed. It links closely to the Precautionary Principle (See response under question 4 above). Risk aversion makes systems less effective; it generates non-compliance and unintended adverse safety outcomes.

There is also a reverse legal burden of proof linked to reasonable practicability under S40 HSWA. This and the 'gross disproportion' formulation result in a current conviction rate of 93% for HSWA offences.

It is clearly right and correct that organisations are investigated and, where appropriate, prosecuted and fined (where justified heavily fined) when they have fallen below clear, objective standards required. It is not however effective system design, in safety outcomes or system efficiency, for those standards to be analysed and judged after the occurrence of a risk event based upon severity of outcome.

The assertion at paragraph 3.29 (and footnote 1035) of Appendix 3 of the Consultation paper that fines for S3 HSWA offences are low is incorrect.

S3 HSWA fines regularly run to several million pounds. Incidents involving public safety are an aggravating factor such that S3 fines for public harms are often higher than equivalent workforce harms prosecuted under S2. Fines are linked to turnover and the culpability weightings are often in practice set by reference to outcome.

We attach as an appendix a short schedule listing recent significant fines under S3 HSWA and the principles relating to S3 HSWA sentencing

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

As the public sector equality duty will apply to specific functions and activities of the relevant bodies, it is difficult to anticipate practical suggestions at this stage.

However, looking at the activities of other transport regulators such as the Office for Rail and Road and the Civil Aviation Authority and indeed local transport licensing authorities, it is clear that they consider equality duties not just in their own organisation and practices but also those of organisations that they regulate in certain cases as part of assessment of their 'fitness' to hold relevant licences. For example, the requirement in the rail context for Accessible Travel Policies and Disabled People's Protection Policies as conditions of licensing and role in enforcing them.

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

The above proposals are consistent with efforts already underway through government-sponsored and industry-led initiatives such as CertiCAV and CAV PASS as well as the BSI AV Standards programme and Zenic's Safety Case Framework guidance.

We support the emerging approach and would expect that a future regulator would develop these nascent components into the kind of mature regulatory framework described by the Law Commissions.

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

We consider that this would be a sensible approach not just to ensure that scenarios used reflect the experiences and concerns of all users but as part of public engagement to engender public acceptance of AVs.

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

Per our first consultation response to the Law Commissions in this series, we agree with the prohibition on unauthorised automated driving systems.

Through our involvement in multiple CAV projects up to this point we are also very conscious of the critical importance of AV trialling to obtain data and evidence on, amongst other things, operational, safety and interface matters. The UK CAV industry and emerging regulatory framework has benefitted enormously from the trialling occurring on UK roads and testbeds. An exemption for controlled and safe trialling of automatic vehicles is a necessary component for research and development.

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 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

We would agree with this as a provisional framework for the first step in the Law Commissions’ proposed two step approval process. It is assumed (for various reasons discussed in the Law Commissions report) that the technical processes ultimately involved in any international and domestic approvals scheme may well significantly overlap. If they do not, then the option of alternative vehicle/system approval would need to be reviewed for appropriateness.

In respect of the principle of developers being able to submit an ADS for national approval, even if they are not responsible for manufacturing the whole vehicle, that does

not seem objectionable in itself. However it is not clear the extent to which freestanding approval of an ADS may in fact be inextricably linked to a vehicle or specific vehicle type in practice. Moreover, it is not clear what role OEMs should nevertheless have in that process if ADSEs are using (indeed relying on) their vehicles as bases to approve their systems. Depending on the functional proximity and dependency of software, hardware and base vehicle, this may be a complex area where relevant stakeholders may nevertheless be entitled to make their own submissions and be consulted on any ADS approval process.

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

Again as a provisional framework this would seem acceptable subject to the details how in practice ADS will be sufficiently verified and validated against a sufficiently identifiable and stable “type” of vehicle.

It is noted that if it is to be installed in a pre-registered vehicle that an example vehicle should be submitted. However, if an ADS is to be approved for a “type” of vehicle rather a specific vehicle, we would defer to automotive verification and validation experts on the extent to which that can be approved without in practice installing and running the ADS over more than one sample vehicle of its particular “type”.

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 are unable to comment on practical aspects of a section 19 appeal against an individual approval decision.

We would note that the timeframes and stages for re-examination in the context of an appeal on an ADS decision are likely to need to be different to that set out in section 19 which focuses on physical at-site examination of vehicles. As noted above, the approval process for an ADS is likely to involve not just testbed/site investigation but also real world and simulation aspects.

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

We agree with this second stage of the Law Commissions' two stage process. Separate to the issue of technical vehicle or system approval, the approval of an ADS to be competent to drive on UK roads and to comply with UK road rules is a matter for national law, as is the obligation on the Secretary of State to designate automated vehicles under AEVA

We agree with the Law Commissions that this approach reflects the current international approach to motor vehicle approvals and national approach to driving standards (including where appropriate mutual recognition of driving licences).

However:

- We consider that, in discussing ‘categorisation’ and ‘classification’, it should be clear what UK legislation or regulation (existing or proposed) is being discussed. For example, the AEVA provides that vehicles either are or they are not “listed” by the Secretary of State as automated vehicles and that decision does not appear to be linked to any criteria other than the demonstrable ability of such vehicle to “safely drive itself” at least in some circumstances.
- The additional criteria and classifications proposed for the safety regulator would appear to be above and beyond this listing obligation of the Secretary of State in the AEVA and we assume will be contained in new legislation.

In terms of the suggested criteria for assessing suitability of ADSEs by a safety regulator, in principle they appear to us to be sensible inclusions, subject to thresholds or categories being set appropriately so that criteria can differentiate appropriately between ADSEs looking to deploy large volumes widely across UK roads and perhaps those who may only be seeking approval to deploy more limited solutions which may be geographically bound to smaller areas or by ODD.

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

A new legislative framework will be essential to underpin the approvals framework under contemplation. Given the practice, technical and standards-based approaches to verification and validation, there is sense to ensuring that any framework has regulation-making powers to ensure that the approval process can adapt promptly.

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

In principle yes – consistent as the Law Commissions note with the standard vehicle approval process. There is reason in principle that this appeal route should exist for technical approval of conventional road vehicles but not for automated vehicles (leaving, for example, only routes such as judicial review available that are poorly suited to disputes of technical substance)

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

Given the potential differentiation between ADSEs and the systems and vehicles that they may wish to have approved, as stated above, we consider that different categories may be appropriate in any event including for ADSEs who only may want approval for a very small series of vehicles for a limited use case.

If that is the case, then the flexibility to apply such “conditions” could be managed in practice by approving deployment under more limited categories rather than endorsing more general approvals with specific conditions.

In principle however, we agree that approvals framework should allow the regulator to approve deployments in stages if that is considered appropriate.

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

For reasons already set out in our previous two responses to the Law Commissions in this consultation series as well as our response to CCAV of 27 October 2020 in respect of ALKS, automated vehicles are fundamentally different to conventional vehicles – particularly given their reliance on software for core driving functionality and their system level features, dependencies and vulnerabilities.

This requires safety regulation more in the manner of the active safety regulation and enforcement undertaken by the likes of the Office for Rail and Road and the Civil Aviation Authority.

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.

Monitoring and review are essential elements of the risk cycle. The conclusions drawn from review can be fed back into increased learning and system enhancements. Regulatory requirements can then be targeted and reviewed.

For the reasons given in our responses to questions 4 and 25, a clear regulatory separation is needed between:

- (a) analysis, reporting and response of fact finding and improvement on a no-fault basis;
- (b) processes for regulatory investigation of failings against licence conditions and/or individual offence investigation following incidents.

The important data collection contemplated under Question 18 and its use, should form part of (a) and not (b). If the two are mixed, this will logically produce defensive behaviours which will undermine the purpose of the analysis.

We consider that the aspects referred to in part (3) of the question should in fact – via the regulatory approval process or legislation – be obligations of the ADSE and therefore they are required by regulation. The power of the regulator in these circumstances should be the power to enforce those obligations and to monitor their compliance.

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

So long as a particular software update does not affect the fundamental “type” of vehicle approved such that the vehicle can be said to no longer conform to its approved type, there should be no requirement to return to the type approval authority.

The scheme should deal with cyber security principles at the level of approval of safety management systems and use case approvals. The principles set out in BSI PAS 1885 and PAS 11281 should be factored in.

The work done, and cyber-security methodology for Cyber Resilience proposed by AESIN through its Automotive Security Workstream group is also critical. Its 2020 report *D2.1 Economic & Technological Feasibility on CyRes Methodology* is of fundamental importance as it highlights the importance of system resilience (the response of the system once under attack) as well as system robustness (the ability of the system to resist attack).

In respect of powers and data, see our response to Chapter 17 below

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

In our previous responses to the Law Commissions we acknowledged the strength of expertise in the existing agencies (notably the VCA and DVSA). However, it is equally clear that the regulation of ADSEs and automated driving systems in addition to vehicles would be a novel and complex area for all existing agencies requiring the rapid development of new expertise. For emerging technology being deployed at pace which likely requires a greater degree of market surveillance, there is a real risk that knowledge and expertise is dissipated across entities and that gaps in regulation could emerge. At the very least there would need to be enhanced co-ordination between such entities to ensure a comprehensive safety regime to reassure the public.

We recognise that in the established automotive and indeed aviation sector there have been high profile concerns over “regulatory capture”. The vehicle emissions scandal led to the 2018 EU Regulations cited by the Law Commissions to ensure separate functions of type approval and market surveillance. We would caution against applying the experience of these long established regulatory regimes to a nascent regulatory regime. We would additionally note that Article 6(1) of the 2018 Regulations does not mandate separate *organisations* as opposed to separate of *functions*. The Regulations expressly provide that the approval authority and the market surveillance authority may be within the same organisation “*provided that their activities are managed autonomously as part of separate structures.*”

There are plainly structural and governance issues that can be addressed upfront for a new regulatory regime based on learning from these existing regimes to manage conflict risk. This includes aspects such as the involvement of external stakeholders or the way in which agencies are funded and engage with industry.

Those structural concerns over potential emerging conflict risk need to be balanced by an immediate safety-critical need to ensure that a comprehensive safety regime is in place for Day 1 deployment of approved automated vehicles with expert regulators in place to approve and monitor deployment. We would query if the latter can be achieved if there is to be strict separation of functions across two (or more) entities.

A structure that is able to balance these considerations appropriately would be welcome – ensuring independent separate functions but also where each authority is able to draw on and share cutting edge expert knowledge and regulatory experience.

There is no unarguably optimal answer to this question. The consultation paper accurately summarises the arguments for and against each approach. However, on balance ultimately the regulatory elements required are part of a single socio-technical system. Repeat experience in many contexts shows that creating more avoidable interfaces and splits of responsibilities in complex regulatory systems tends to create greater risk of disconnects and regulatory dissonance or inconsistency.

A similar argument occurred in relation to the separation between safety regulation (HSE) and economic regulation (ORR) at the Ladbroke Grove (Cullen Part 2) Inquiry⁸ (See Chapter 10. The Cullen Inquiry decided against a combined regulator (the terms of reference preclude analysis of the powers of ORR as such) but Government subsequently was persuaded by industry stakeholders of the merits of an integrated approach and the amalgamation was effected from 1 April 2006 following primary legislation⁹.

An essential counter-balance to regulatory capture – and other failures of regulation – is the establishment of an independent accident investigation body. In the case of rail this is the RAIB which was actioned in parallel with, and at the same time as, these changes in the regulatory architecture.

The fact finding accident investigation body should be empowered to, and as a matter of routine must, investigate and report on the role of regulators – and any underlying factors – in any system safety failings.

It is therefore fundamental and essential that the investigation body is independent structurally, financially and in terms of its reporting lines from all the other parts of the regulatory system.

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)?

⁸ <https://www.orr.gov.uk/media/10940>

⁹ Railways & Transport Safety Act 2003 and Railways Act 2005

Please share your views below

A number of transport regulators take the opportunity to benefit from their own constituted expert panels drawn from wide stakeholder groups to consult, develop strategy or thought leadership. Examples include the ORR's road expert panel and consumer expert panel.

In addition, there are many representative organisations that one would expect regulators to engage with on topics of mutual interest. These include transport policy organisations, safety bodies, road user organisations and disability groups – many of whom we note have engaged extensively with the Law Commissions' review.

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.

Where such events as described have occurred whilst the AV is in-use (i.e. with automated driving activated) we remain of the view as expressed in our previous responses that the ADSE should have obligations to report legal breach incidents (especially where they relate to safety) as the ADSE is responsible for the ADS.

This would be analogous in some ways to how transport operators and commercial fleet operators would be required to report under Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) as well as industry-specific reporting obligations in the likes of the rail, marine and aviation industry.

There should be a threshold or level of discretion for regulators and investigation authorities as to when incidents merit investigation and as to the extent of investigation. This may mean for example that in early phases of deployment most incidents are investigated but as AV volumes increase, full investigations are utilised only for those incidents with the most complexity or severity or breadth of impact. Mandating that every reported incident is investigated could otherwise become unwieldy and overly-burdensome if not impossible in practice. This would reflect the investigatory remit and discretion of the likes of the HSE, the ORR and the RAIB and other investigation branches.

Data and key metrics beyond breach would also be analysed at a system level – See Q4 response above.

As in other transport sectors, we agree that a range of regulatory tools as well as sanctions are available to drive continuous safety improvement and incentivise safe approaches, as well as system effectiveness.

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.

We agree that all of the options mentioned above should be available to a responsive and pro-active safety regulator to deploy in an appropriate manner and, if necessary, in combination in an escalating approach. Within a regulatory environment they are familiar concepts even if they are called slightly different things (e.g. Improvement Notices, Prohibition Notices, etc).

As the Law Commissions note, the concept of restorative conferences is less familiar in the field of transport (beyond perhaps between individuals directly involved in RTAs). However, given the system-level decision-making that may underpin an ADS and the ability to make fleetwide improvements or changes in response to societal concerns, it is possible that (as with no-fault safety investigations) there could be an important role for such engagement tools for improving safety.

In terms of system safety, whilst cross-modal learning is important, it is also important to recognise the potentially unique aspects of ADS. That includes the fact that, whilst aviation, marine and rail operation are in large part segregated from the general public, the operation of an ADS may be situated firmly in shared use environments where people may additionally live, work and play.

Any potential channel to facilitate this wider communication between ADSEs and stakeholders (beyond regulators and users) should be welcomed.

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.

There is a potentially useful role for regulator discretion in an area of emerging technology however the discretion should not be absolute and guidelines or policies should be developed by the regulator to explain broadly how and in what circumstances any such discretion will be exercised.

Wherever possible, it is on balance preferable to provide certainty of approach to the market and developers of technology so far as monetary penalties are concerned.

For example, Section 42 of the Regulatory Enforcement and Sanctions Act 2008 (which the Law Commissions cite) whilst allowing for regulator discretion, is still based on the regulator being satisfied beyond reasonable doubt that a relevant offence has been committed; there are limits to variable monetary penalties where the relevant offence is triable summarily and punishable by a capped fine.

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.

Further to our previous responses to the Law Commissions on this aspect and our work in particular supporting the RAC Foundation on exploring a “Highway Accident Investigation Branch” (<https://www.racfoundation.org/research/safety/highways-crash-investigation-what-the-rail-industry-can-teach-us>), we support this proposal in respect of automated vehicles.

For the avoidance of doubt, we reiterate and emphasise that the purpose of such a branch would be to focus on no-blame investigation for the purpose of safety improvements. It would not be intended to replace, directly support or supplement police (criminal) investigation.

It is of concern that certain respondents to the Law Commissions' consultation have interpreted the purpose of a "Collision Investigation Branch" as being a branch of the police or gathering evidence and producing reports that could be relied on by the police. This is a fundamental misunderstanding and one with the potential to cause significant problems.

There is a detailed exploration of the policy and practical issues at **Chapter 11** of the Ladbroke Grove Part 2 Public Inquiry Report¹⁰, including the fundamental importance of separation from criminal processes.

Such blurred approach fundamentally affects the effectiveness of a no-blame safety investigator and would hamper its work in rapidly investigating incidents and disseminating safety information and recommendations.

The parallel investigations approach of the work of the RAIB and the British Transport Police in rail accident investigation demonstrates the respective roles and responsibilities and operational protocols that need to be in place. There are effective Memoranda of Understanding¹¹ in place to co-ordinate the different processes, but they are different processes with fundamentally different objectives and outputs.

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.

We would agree that the question of applying road rules to self-driving vehicles appears to be as much a technical issue as one of interpreting broad driving rules. Moreover societal expectations of AV behaviour compared to human behaviour within the same broad rules do not appear to be the same (given their different functional strengths and weaknesses).

We support the convening of a tightly focussed forum to consult on the application of road rules. However, noting that even within the Law Commissions' review, there were some stark split views on the likes of edging through crowds and mounting pavements, any forum needs to be part of a process that ultimately does resolve in the determination of the type of "digital highway code" contemplated by the review. It can be anticipated that,

¹⁰ <https://www.orr.gov.uk/media/10940>

¹¹ For example: [MoU between RAIB, BTP and ORR - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/614422/MoU_between_RAIB_BTP_and_ORR_-_GOV.UK.pdf)

whilst there will be collaboration, not all participants are going to be happy with the outcome.

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

Ultimately, agreeing the scope of issues to be considered should be part of the original remit of the forum however the issues should be focussed around the necessary output which is the production of a “digital highway code” applicable to all AVs operating in the UK.

To avoid the need to consult widely on inputs as well as outputs, membership of the forum should be drawn from across the CAV industry, regulatory, transport and safety authorities, academic researchers and organisations representing road users of all kinds.

In terms of the engagement with the general public, it may be useful to provide general progress updates or issue-focussed workshops/seminars during the course of development otherwise the main engagement points should be in relation to proposed outputs in the form of the proposed “digital highway code” (or parts within it).

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.

We agree with the proposal subject to clarification of the words "*in direct sight of the vehicle*"

At least part of the reasoning for inclusion of this wording into the definition of a user-in-charge appears to relate to changes in UK regulation to allow for remote controlled parking (and the 6m rule associated with it).

Paragraph 12.11 indicates that intention of the wording is to cover use of "features" such as remote parking and auto summons but not "remote operation" (which appears to equate to "remote supervision" in paragraph 12.17). However, it is not entirely clear where the boundary lies. Paragraph 12.15 indicates that "direct sight" may extend up to 20 metres (i.e. beyond the range permitted for remote parking).

To the extent that a user-in-charge may be outside of the vehicle in sight of the vehicle (but not remotely supervising from a control room per paragraph 12.17) and may be expected to undertake any part of the dynamic driving task or respond to a transition request in respect of the same, that is a very different activity to remote controlled parking (which is automated activity initiated by user). The relevant line of sight is somewhat different. A dynamic driving task demands not just line of sight from user to vehicle but also functional line of sight along the path of the vehicle. Line of sight principles as applied to buses and rail (including light rail), for example, are based on how far the driver can see ahead of the vehicle along its path.

We note also that the Visual Line of Sight (VLOS) used by the CAA for drones is cited by the Law Commissions. If the intention was to align "*in direct sight*" with VLOS (and distinguish from BVLOS), then it will be noted that the definition of VLOS incorporates perception of the path of the vehicle and not just sight of the vehicle per se.

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.

In principle we would agree with this proposition assuming that a valid transition demand (as proposed) has been made.

In respect of civil and criminal liability, we understand that all available causes of action (e.g. contribution) or defences (e.g. vehicle or system defect) would remain available to the user-in-charge notwithstanding that he may have failed to respond to a transition demand. In noting that failing to respond would not “*automatically lead to an offence*” (paragraph 12.35) we take it failing to respond to a transition demand is not itself intended to be a criminal offence. We would note also that where mens rea is required, knowledge and expectation of the user-in-charge as to what minimum risk manoeuvre may be attempted by an automated vehicle in the case of failing to respond to a transition demand may be relevant.

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 consider that a person with provisional licence should be permitted to act as a user-in-charge in the circumstances described. Indeed it may be an essential opportunity in future to learn the use of new vehicle technology much like more recent incorporation of technology such as sat-navs into learner training.

We note the reasoning for designating that a learner driver would be the nominal user-in-charge given their access to the full functionality of the dynamic driving task (compared to the instructor). However, as the instructor would be an additional party with a degree of control over the vehicle that may be material and with responsibility for the supervision of the learner driver, we assume that normal causation principles and civil liability principles as regards contributory negligence (e.g. *Nettleship v Weston [1971] 2 QB 691*) would be undisturbed by this designation.

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.

As noted by the Law Commissions, causing or permitting will require the appropriate knowledge and mens rea and on that basis we would agree with the formulation of these new offences.

However, it is not entirely clear how the offence would apply if the relevant “user-in-charge” is not one in the vehicle but outside the vehicle with direct sight of it. It is presumed that the available knowledge of or imputed to a passenger in such circumstances may be quite limited.

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.

We would agree with this on the basis that the offence is to be carried in an automated vehicle without a user-in-charge knowing that there was no user-in-charge, in circumstances when the passenger knew or ought to have known that a user-in-charge was required

However, please note that we can envisage circumstances in which the offence may not be necessary. The Law Commissions’ framework contemplates a scenario in which automated vehicles will be approved and designated specifically as vehicles requiring a user-in-charge (as opposed to those that require none - NUICs).

If the systems of such vehicles are mandated to register and confirm their user-in-charge before allowing automated driving to be activated then the risk of their operation without a user-in-charge does not materialise. Instead other offences may come to the fore such as those proposed in relation to falsely declaring fitness or qualification to drive or tampering with systems to circumvent the built-in safety feature of verifying a user-in-charge.

We query whether the Law Commissions need to recommend this new offence at this stage or should do so subject to eventual understanding of how ADSEs will be mandated to engage with users-in-charge.

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

Yes – per above it appears to us that the new offence may not (yet) be necessary but if it is introduced it seems to us to be intended to capture criminally irresponsible or reckless actions to allow oneself to be carried in an automated vehicle certified only for use with a user-in-charge but without one. If such vehicles are (as contemplated) required to achieve a minimum risk condition if there is no response to a transition request from a user-in-charge, the person most exposed to a safety risk in this situation is more likely than not the passenger himself.

We consider that the knowledge requirement would make this offence analogous in some ways to the criminalised behaviour that might apply to a joyriding passenger today of *“allowing himself to be carried”* (Theft Act 1968 s12) in a vehicle known to be driven by someone without consent of the owner or lawful authority.

However, as we explain above, this would seem to be a matter related first and foremost to safe operation and to compliance with vehicle approvals and could by design be something that is mandated of ADSEs to prevent occurring in the first place so as far as reasonably practicable.

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.

We agree that from the perspective of the criminal law this offers a sensible compromise. However, we can foresee potential challenges to the application of a “competent and careful driver” test if it is to be a driver who is to be assumed (artificially) to have been driving throughout, as opposed to one that is having to respond to a transition demand in those particular circumstances.

Similarly the qualification of “*given the actions of the ADS*” may not describe adequately enough the full circumstances that may have been faced by the driver as opposed to “*given all relevant circumstances*”.

Given that we have previously in our responses highlighted the issue of reaction times in the VENTURER project of competent and careful drivers trialling under heightened alertness and a degree of ‘sub-optimal’ driving performance even once nominal control has been fully assumed, the question of a competent and careful driver test in these circumstances is not straightforward.

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.

Yes where these offences would otherwise apply to 'users' of vehicles if driven by humans, in principle, they should apply to users-in-charge (and would in any event apply to such users when they are undertaking the dynamic driving task potentially as part of the same journey).

However, as the Law Commissions note, the scope of the obligation to ensure "roadworthiness" increasingly depends on what is visually or audibly apparent to the relevant user, what the ADS communicates to the user and the ability of the ADS to maintain its own roadworthiness (e.g. in respect of safety-critical software updates). Therefore the interpretation of roadworthiness is likely to require clarification in future if not specification and/or standardisation

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.

Yes for the above reasons, we do consider it important to have regulatory powers to clarify what are the roadworthiness aspects it would be considered reasonable for a user-in-charge to be aware of – and indeed what aspects ADSEs may be mandated to require their ADS to self-diagnose and inform users of.

Criminal behaviours aside, a safety-led approach would mandate that systems and system checks are in place to regularly monitor safety (particularly on aspects 'hidden' from cursory examination by users-in-charge), run self-diagnostics and, ideally, to inform users-in-charge or prevent operation of ADS where the ADS system knows that it is potentially unsafe to be used.

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.

We agree that if an individual is exercising remotely the latitudinal and longitudinal components of the dynamic driving task then the vehicle is not driving itself or self-driving whether under the AEVA or any other commonly used definition

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.

It appears to us that the definition of an “automated vehicle” under the AEVA is a multi-part definition that needs to be read together. Namely:

1. “automated vehicle” means a vehicle listed under Section 1 (s1(4) AEVA)
2. A motor vehicle that is listed by the Secretary of State in his opinion as one:
 - a. “*designed or adapted to be capable, in at least some circumstances or situations, of safely driving themselves*” (s1(1)(b) AEVA)
 - b. “*may lawfully be used when driving themselves, in at least some circumstances or situations, on roads or other public places in Great Britain*” (s1(1)(b) AEVA)
3. Where “driving itself” is where “*it is operating in a mode in which it is not being controlled, and does not need to be monitored, by an individual*” (s8(1)(a) AEVA)

Looking at this definition, there are some observations to be made:

1. A vehicle can be “driving itself” even if it is being monitored. The critical requirement in s8(1)(a) AEVA is not that it is ‘not monitored’ rather that it “does not need to be monitored”. That begs the question: what is the relevant context where ‘necessity’ to monitor disqualifies the vehicle from “driving itself”?
2. It appears to us that part of the answer comes from the defined term itself – “driving” itself. If a vehicle does not need to be monitored to undertake the dynamic driving task effectively, it can be driving itself. If a vehicle needs to be monitored for some other purpose (e.g. to ensure the comfort of passengers) that logically does not affect the ability of the vehicle to drive itself and cannot really have been intended to have that disqualifying effect.
3. That said, as the Law Commissions note, there is a wide range of possible remote interventions that might affect the undertaking of the dynamic driving task by the vehicle that might mean ‘monitoring’ of one sort or the other. What kind of monitoring of the dynamic driving task might be considered necessary and what kind as not necessary?
4. We consider that some assistance in this regard is available from the wider definition of automated vehicle which is not only a vehicle “driving itself” but “safely driving itself”. If monitoring of the vehicle’s dynamic driving task is necessary in the sense of being safety-critical to that task, it seems fairly clear that the vehicle will not be classed as an automated vehicle under AEVA. Conversely if a vehicle can default to a safe minimum risk condition even if it is not being monitored, then monitoring of that vehicle is not necessary for safely driving itself.

Consequently, it seems possible to interpret AEVA in the context of NUICs in a way that aligns with the Law Commissions’ position on user-in-charge vehicles. If a vehicle can drive itself and make requests to an operator (including to assume the dynamic driving task) but does not rely in a safety critical manner on a positive response as it will otherwise default to a safe minimum risk condition, then in principle when it is driving itself it can be said to be safely driving itself and to be an automated vehicle under AEVA.

In our view therefore AEVA already allows for the possibility of a degree of monitoring – just not monitoring that is essential to the vehicle being able to safely drive itself. However, if there is ambiguity, then the position could be clarified through amendment to AEVA.

Certainly, subject to legalisation of “remote driving” itself, there does not appear to be any reason in principle why automated vehicles could not be remotely monitored for related purposes (such as providing the ADS with up to date information or monitoring requirements to schedule charging stops or checking on passenger welfare or monitoring of vehicle condition or weather) or request assistance with decision-making or request a transfer of dynamic driving task to a remote driver. The core question that it seems would have to be answered for each activity is what would happen to the dynamic driving task if remote monitoring and assistance was not possible? Would the dynamic driving task being undertaken by the automated vehicle be unsafe or would it just default to a safe minimum risk condition if it had to? That question needs to be asked – not just because of issues around legal definition, status and liability – but also because it is a core

operational and resilience issue and a necessary consideration within a safety case if, for example, communications between a vehicle and its remote operation centre failed (for whatever reason).

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.

As the Law Commissions note, an ADSE may also be licensed as an operator depending on their commercial model but, yes, as concepts they are distinct.

We note the challenges around operation of such vehicles and can understand the approach taken by the Law Commissions to requirement that they operated either directly by licensed operator or that their operation is contracted for supervision and maintenance to such operators – at least at the early deployment stage. At the early deployment stage, it does not appear to us that this would necessarily be a material deterrent in itself to the private ownership market and indeed such arrangements may be preferred for simplicity and convenience from an owner point of view or even may (for sound commercial reasons) be requirements of leasing and hire arrangements.

In respect of the proposed offence, we would agree with the principle of the proposed offence but we note that there may need to be some additional nuance around the wording for “use” or “user”. As such vehicles will have no user-in-charge and may not be being “used” by their owner or registered keeper in the way that the term is conventionally understood for motor vehicles, it may need to be clarified who is “using” such vehicles at what point.

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.

We consider that it should be a condition of obtaining relevant operator licences to submit a SMS to the relevant licensing authority for review. For complex operations (which a NUICs operation is likely to be) it is likely that an operator will put in place a safety management system in any event. Certainly they are common and/or required in the rail, aviation and commercial fleet (passenger and freight) sectors in the UK.

Moreover, we agree with the sentiment expressed by Five AI and others that it unlikely that all the key safety aspects of a NUICs operation will fall within the competence, qualification and expertise of a single individual.

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.

Yes we agree that these should be primary obligations of the licensed operator – as they would in large part be expected to be today. That is not to say that relevant activities cannot be sub-contracted but as primary duties they should be non-delegable nonetheless.

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.

It was not immediate clear to us why this regulation would be required or would be required on a pre-emptive basis – particularly if the requirement for now is to be that any private registered keeper or owner should contract with a licensed NUICs operator to ensure that these potentially quite technical activities are undertaken competently. That being the case, we would say that it would be premature to introduce this power unless and until potentially appropriate circumstances when it might be used are identified.

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

We would endorse the proposal of the Law Commissions to create an accessibility advisory panel and for technical working groups to be established to develop and promote standards (potentially through BSI and where available drawing in international work on the same area).

Those standards should reflect and be proportionate to the various use cases and scales of deployment that HARPS might encompass

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.

These appear to be sensible proposals, although for the accessibility advisory panel to be effective and focus on feasible standards, it would be advisable for ADSEs and AV manufacturers to be represented also.

As we stated in our previous submissions to the Law Commissions national minimum standards should nevertheless differentiate between the various types of services, vehicles and operations potentially covered by the umbrella category HARPS (e.g. which may be taxi-style services as much as bus-like services).

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

Please share your views below

We have no specific view on this aspect.

Consultation Question 43

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

Please share your views below

Further to our previous Law Commissions responses in this series, we remain of the view that the Traffic Commissioners would appear to be the more appropriate of the existing routes for operator licensing to undertake HARPS licensing including acting (as it does) as an independent regulatory tribunal with a right of appeal. In examining technical and safety-related aspects of AV operation, the Traffic Commissioners will want to work closely with the UK's AV safety regulators and in particular the authority for market surveillance (whoever that may be).

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.

We note that offence is intended in practice to capture the most egregious acts and omissions as they relate to safety-critical disclosures. We note that the corporate offence would be subject to a due diligence defence.

On balance we consider an offence of this type is necessary for public safety assurance, to reinforce the critical importance of safety transparency and to address the potential information / experience imbalance between ADSEs and regulators (especially at the outset of the technology's deployment).

Although not a matter for legislation, the in-use safety regulator could (like other transport operators) monitor and promote positive "safety culture" in organisations through the safety management system and dissemination of guidance and best practice. In addition, there may be relevant learning from the activities in certain parts of the transport industry as regards the promotion of confidential hotlines and reporting portals for health and safety matters (e.g. CIRAS)

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

In terms of offences relating to failure to provide information that would apply to information in the ADSE's possession, custody and control of documents and knowledge
--

at the relevant time is relevant but it is not clear the extent to which it is intended to include information that the ADSE should have obtained (e.g. from component manufacturers).

Whilst the offences are intended to relate to the period when putting a vehicle forward for classification as self-driving or responding to information requests from the regulator, it is also not clear whether or not there is any proposed offence in terms of any continuing obligation to disclose to the same authority if new information emerges or key information changes. This may be particularly relevant for products such as AVs where functionality may evolve in-use over its lifetime.

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

Whilst we understand the concerns raised in the Law Commissions' paper, we suspect that the technical detail involved in approval of ADS is unlikely to be comparable to typical insurance disclosures under the Insurance Act 2015.

As the approval process is as likely to be novel to ADSE's in the early stages as to the regulators, we would consider it more consistent in approach and transparent for regulators to make their requirements as to structure and how technical information is presented clear at the outset of a process. We note that technical information requirements for conventional vehicle type approval assessment are very often completed against model forms and checklists based on the known technical criteria for assessment. Similarly for safety approvals in other transport modes such as rail and aviation, regulator expectations as to information requirements are also well understood upfront with potential thereafter for dialogue where applicants are engaged continuously with regulators to clarify information to the regulators' satisfaction.

When technical assessment criteria are made known as well as the expectations of regulators of application processes, it is not clear what if any level of "data-dumping" may take place (whatever the reason for that may be). In the circumstances, unless and until there is compelling evidence that the mischief identified may materialise it would seem premature to introduce new law on this specific point.

Fundamentally, if a regulator is not content with the information provided to it, it can deal with the matter by declining to approve an application as a matter of its application procedure. In so doing, it will align relevant stakeholder interests in ensuring transparency and clarity to the regulator.

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.

Yes – as in our previous submissions to the Law Commissions, given the novelty of the technology, we consider that absolute clarity on this point would be preferable to reinforce necessary public messaging around safety. This is particularly important where modifications that may on conventional vehicles be considered only cosmetic could be tampering with safety-critical aspects on AVs (e.g. obscuring sensors).

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

More clarity is required here in respect of what infrastructure is contemplated and how it may relate to a safety-critical dependency for AVs.

In principle, where there are such dependencies on external infrastructure, new offences to deter tampering with such infrastructure may be appropriate (e.g. rail trespass, damaging trains or railway or endangering the safety of rail users).

Alternatively, tampering with external infrastructure may already be covered by existing offences (e.g. computer misuse or interference with telecommunications)

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.

We note again the potential gap between human offences of causing death or injury by driving and the Section 22A offence of causing danger to road-users, as regards wrongful interference with automated vehicles causing death or injury

That is a gap which unlawful act or gross negligence manslaughter or corporate manslaughter could eventually fill but only ever in respect of deaths – not serious injury

Given the potential for interference with an automated vehicle causing death and/or injury, the importance of being seen to punish acts causing death and injury, the need to reinforce the messaging on such dangerous prohibited behaviour and reassuring the public and users, there is a case for considering a new criminal offence. As existing offences around causing death and injury by driving are inextricably linked to human drivers and behaviour, there is logic to creating a new freestanding offence for AVs.

We note that there is an existing and separate aggravated offence already which may apply where the wrongful interference amounts to hacking under the Computer Misuse Act and that causes or creates a significant risk of death or serious injury intentionally or recklessly

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.

Yes we agree with the need to demonstrate an intent to interfere for the aggravated offence and in doing to differentiate from the s25 tampering offence

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

Given the uncertainty about the application of the wording “without lawful authority or reasonable cause” highlighted by the Law Commissions, we can see the benefit of clarifying that manufacturer or ADSE approved work should be a defence. Where functionality is dependent on software in particular, it provides a clear direction as to what type of work can be undertaken and that it should first be certified as compatible and safe by a third party.

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.

Yes – for the reasons we have previously submitted to the Law Commissions, we do agree that the existing framework on contributory negligence and causation should be adaptable enough to deal with AV liability issues arising under AEVA

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. The existing uninsured and untraced drivers compensation framework is intended first and foremost to protect the public from the risk of no or delayed compensation if injured by a car. This position should not be any different going forward regardless of whether or not a person is unfortunate enough to be hit by a human-driven vehicle or an automated vehicle. We would endorse an expansion of the current MIB arrangements.

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.

As we have previously submitted, we agree that there are issues that merit review regarding application of the Consumer Protection Act 1987 in respect of:

1. Pure software products and updates;
2. The definition of producer; and
3. The “state of the art” defence

These are general issues with particular pertinence as regards automated vehicles, their dependence on software and post-supply updates, their machine learning capabilities and the complex supply chains and component interactions.

It is acknowledged that this review may need to be undertaken more generally and in conjunction with the approach of supra-national bodies such as the EU or UN given the international nature of the products and their manufacturing supply chain. It is acknowledged that consideration of these issues in the context of the Consumer Protection Act 1987 may have implications going far beyond automated vehicles.

Alternatively, depending on the timings around that review, if necessary to coincide with approval and deployment of AVs, there may be a case for considering whether automated vehicles should be treated as a special category of product given the safety-critical nature of its primary function to user and members of the public.

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.

We agree with the Law Commissions' proposals that location and other specified data need to be collected by an ADS. Our work as a technical co-author on BSI PAS 1882:2021 suggests that mandatory data collection requirements should extend beyond location data and time-stamps for the purposes of both specialist investigation, insurance purposes and for the purposes of the safety in-use regulator drawing additional learning from incidents and to apply appropriate regulatory sanctions.

We further agree that the recording of such data is not incompatible with UK GDPR. To the extent data recorded constitutes personal data, the requirements of UK GDPR will apply including in respect of appropriate technical and organisational measures to ensure a level of security appropriate to the risk of processing such data. We note that any additional requirements with regard to cyber-security measures applying to ADS will extend to the data storage systems.

The proposal for Government to work with the UNECE to ensure data storage systems for automated driving is a sensible proposal which recognises the global nature of the UK vehicle manufacturing and technology market.

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.

We agree that a clear legal obligation to disclose data to insurers would provide certainty in respect of an ADSE's obligations as a controller of such personal data. We note that the need for data to be necessary to decide claims fairly and accurately would mean that the ADSE would still be required to make an assessment as a controller as to whether the insurers request for data was necessary for the purposes of assessing claims fairly and accurately.

In this respect, the Information Commissioner's Office provides a useful summary of what "necessary" means in the context of processing personal data. The term "*necessary... does not mean that processing has to be absolutely essential. However, it must be more than just useful, and more than just standard practice. It must be a targeted and proportionate way of achieving a specific purpose...*" (see <https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/>).

We anticipate that in providing data to an insurer pursuant to a legal obligation, an ADSE is likely to rely on an exemption under the Data Protection Act 2018 (see Schedule 2, Part 1 Paragraph 5) which exempts a controller from certain provisions of UK GDPR to the extent compliance with such provisions would prevent the ADSE providing information required to be disclosed by law.

We therefore suggest that the legal obligation which applies to those controlling AV data is to provide information where required to insurers involved in the relevant claims, but that there is a corresponding legal obligation placed on insurers to only require data for the purpose of assessing claims fairly and accurately. This would remove the need for those controlling AV data to assess whether the data was necessary for the purposes of assessing claims fairly and accurately, and places the obligation for doing so on the insurer who is likely to be best placed to make this determination.

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.

We recognise the difficulties with prescribing a retention period for DSSAD data. As recognised by the Law Commissions' there is a need to balance a number of

considerations including limitation periods for personal injury claims, privacy considerations and the costs of data storage.

Storage of personal data will constitute processing for the purposes of UK GDPR. Consequently, ADSE's will need to ensure that appropriate technical and organisational measures are applied to the storage of DSSAD data from self-driving vehicles. Storage of data for this period of time is likely to raise a number of concerns, for example, the risk profile of retaining significant amounts of DSSAD data which may constitute personal data and the costs of data storage. Subject to technical feasibility, an alternative may be to retain DSSAD data recorded within specific time parameters in relation to detected collisions. We however note that this would necessitate a review of the requirements for detecting vehicle collisions.

We agree that the retention period should be reviewed periodically.

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.

We agree that there must be a requirement on an ADSE to demonstrate that the self-driving vehicle is capable of recording, storing, accessing and protecting the required data. To the extent that such data constitutes personal data, that data will need to be processed in accordance with the data protection principles and the ADSE must ensure that its systems are planned and developed with data protection by design and default and that the data is processed securely by means of appropriate technical and organisational measures. Additionally a requirement for access could extend to provide data subjects with access to their data pursuant to data subject access requests. The proposal is potentially far-reaching.

UK GDPR does not define the controls and/or measures that controllers (and processors) of personal data should have in place to comply with UK GDPR. Instead it sets out principles for compliance around which the requirements of UK GDPR and consequently the DPA 2018 are structured. For example, UK GDPR recognises that the technical and organisational measures put in place to ensure the confidentiality, integrity and availability of personal data need to be appropriate to the relevant organisation and the risk of processing.

We anticipate that any requirement on a regulator to only categorise a system as self-driving if it is satisfied that the ADSE has systems to abide by its obligations under UK GDPR will be underpinned by a framework or guidance document that stipulates the appropriate measures in place to ensure that an ADSE can comply with its obligations under UK GDPR. This is not dissimilar to the approach taken in respect of cyber security for operators of essential infrastructure under the NIS Regulations.

We have a number of concerns with this approach:

- such measures may not permit flexibility in the assessment compliance with UK GDPR and may have the unintended consequence of stifling competition in the market;
- requiring a regulator to make this assessment will require the regulator to have access to legal and technical experts able to make this assessment;
- a finding of adequacy by a regulator in categorising a vehicle as self-driving may be used as a 'defence' by an ADSE in the event of a data breach which is investigated by the Information Commissioner. Essentially, our concern here is with a regulator being seen to validate or sign-off on an ADSE's data protection compliance.

APPENDIX

This memo sets out research into the Sentencing Council Guidelines and supporting case law evidencing significant fines in relation to s.3 and s.2 of the HSWA.

BACKGROUND

- 1 In relation to the types of available penalties for a conviction under s.3, Paragraph 3.29 of Appendix 3 in the Law Commissions' final consultation on CAVs ([Automated Vehicles Consultation Paper 2 on Passenger Services and Public Transport](#)) noted:
 - (a) A conviction under s.3 does not attract heavy penalties; and
 - (b) Maximum sentence: unlimited fine or two years imprisonment on indictment, or six months' imprisonment if tried summarily.

KEY EXTRACTS FROM THE SENTENCING COUNCIL GUIDELINES

Scope of Sentencing

- 2 [The guide for corporate HSWA breaches](#) in relation to "Breach of duty towards employees and non-employees", confirms that breach is triable either way and both (indictment and summarily) incur an unlimited fine.
- 3 The [overview page](#) of the Sentencing Council confirms the definitive sentencing guidelines for use in the Crown Court or Magistrates' Courts.
- 4 The guide for corporate HSWA breaches (section 33(1)(a) for breaches of sections 2 and 3), (section 33(1)(c)) is [here](#). Under the heading "Applicability of guideline", the nine step test for determining the sentence is set out. As the range of fines are dependent on culpability and harm in the context of a company's turnover, fines range from £50 - £10m.
- 5 If a Large Organisation (£50m and over) is found to fall in Harm category 1 (i.e. because there was a death and a high likelihood of harm) and there was very high culpability, the range for a fine is between **£2.6million - £10million** (with a starting point of **£4million**).

Nine step test for determining the sentence

Step 1: determine the offence category. The court should determine the offence category using only the culpability and harm factors set out in the [sentencing council guidelines](#). Where there are elements of the case that fall in different categories of culpability, the court should balance these factors to reach a fair assessment of the defendant's culpability. When assessing harm, the courts should look at seriousness and likelihood.

The court must consider moving up a harm category or moving up in a category range (at step two) if the offence exposed a number of people to the risk of harm and/or the offence was a significant cause of actual harm.

Step 2: starting point and category range. The Court will refer to the tables for different sized organisations which are included in the guideline. The Court will focus on the organisation's annual turnover to reach a starting point before then considering further adjustments for aggravating and mitigating features.

Step 3: adjustment of the fine. The court must check whether the proposed fine based on turnover is proportionate to the overall means of the defendant by taking into account seriousness of the offence and the financial circumstances of the defendant. The court should finalise the appropriate level of fine in accordance with [section 125 of the Sentencing Code](#).

Step 4: consider other factors that may warrant adjustment of the proposed fine. The court should consider any wider impacts of the fine within the organisation or on innocent third parties such as impact of the fine on offender's ability to improve conditions, make restitution to victims and employment of staff, customers etc. Where the fine falls on public or charitable bodies, it should be substantially reduced if the fine would have a significant impact on the provision of its services.

Step 5: consider factors that indicate a reduction. For example, assistance to the prosecution. It should take into account [section 74 of the Sentencing Act 2020](#).

Step 6: reduction for guilty plea. In accordance with [section 73 of the Sentencing Code](#) and the [Reduction in Sentence for a Guilty Plea guideline](#).

Step 7: compensation and ancillary orders. In all cases the court must consider whether to make an ancillary order. These may include remediation (under s.42(1) of the HSWA), forfeiture (s.42(4)) and compensation.

Step 8: totality principle. The court must consider whether the total sentence imposed for a number of offences is just and proportionate to the offending, in accordance with the [Totality guideline](#).

Step 9: give reasons. Subject to [Section 52 of the sentencing code](#), the court must give reasons for the sentence imposed.

References to Risk to Public

- 6 The question of the risk of harm to the public is referenced within Step One (Determine the Offence Category). This is determined using only the culpability and harm factors listed in the guidelines. The final assessment of Step 1 is to consider whether two additional factors apply. If so, the Court must consider either moving **up a harm category** or substantially moving up within the category range. One of these additional factors is "*whether the offence exposed a number of workers **or members of the public to the risk of harm**. The greater the number of people, the greater the risk of harm.*" (emphasis added).
- 7 An example of this in practice is the Sentencing Remarks in the prosecution against Merlin Attractions Limited where members of the public sustained life changing injuries on a roller coaster. The Judge remarked in determining 'Step One' the Offence Category that he had to consider "*whether the offence exposed a number of workers **or members of the public to the risk of harm**.. If [this applies] the court must consider either moving up a harm category or substantially moving up within the category range.*" (emphasis added).
- 8 For 'Step Two', he noted when assessing 'Mitigating Factors' that he had to balance the positive attributes of the company and its reputation against "*the serious breach of the high duty of care and the public opprobrium in an incident such as this putting at risk as it did the safety of thousands of children and young people.*" However, the guidelines do not reference this as part of Step Two.
- 9 The [sentencing council's guidelines on "Aggravating and mitigating factors"](#) also confirms that multiple victims will indicate a more than usually serious degree of harm.

References to Death/Serious Injury

- 10 There is not a requirement for proof that a HSWA offence caused harm. Therefore the risk of harm caused by the offence is assessed as part of 'Step One'.
- 11 For the risk of a death, a physical/mental injury resulting in lifelong dependency for third party care or significantly reduced life expectancy, this will be classed as 'Level A'. For the risk of physical/mental impairment or a progressive, permanent or irreversible condition, this will be classed as 'Level B'. To determine the harm category, the Court will look at the likelihood of the harm (high/medium/low) against whether the Level A / B seriousness of harm risked.

SENTENCING GUIDELINES EXAMPLES – CASE LAW REFERENCES

12 The below table sets out a number of cases where very significant fines were given where there have been breaches of

- (a) section 3(1),
- (b) section 2(1) and 3(1) and
- (c) section 2(1).

13 The case examples evidence a trend to significant fines for section 3 HSWA breach

Defendants	Value of fine given	Sentence date	Type of loss
Breaches of section 3(1)			
National Grid	£4m	18 February 2021	No injuries or fatalities; Failure to keep adequate risk records of inspections of properties https://www.lexology.com/library/detail.aspx?q=94c12a44-e8c9-4239-87bd-5e6246b8ba43
Drayton Manor	£1m	March 2021	Death of a child on a theme park water ride https://www.bbc.co.uk/news/uk-england-stoke-staffordshire-56426318
<u>Hampshire County Council</u>	£1.4m	4 December 2019	Child suffered a severe head injury when the cast iron bollard she was playing on fell to the ground.
<u>Modus Workspace Limited</u>	£1.1m	21 May 2020	Worker was seriously injured when he fell from height. (Modus Workspace Limited had not taken reasonably practicable measures to prevent a fall from the internal roof and had failed to discharge its duty to ensure those not in their employment were not exposed to risks, in particular that of falling from height.)
<u>Synergy Housing Limited and Orona Limited</u>	£1m synergy – £533,000 – Orona	15 January 2019	Death of a five-year-old girl who became trapped while using a lift at her home.
<u>Bupa Care Homes Ltd</u>	£3m	14 June 2018	Death of elderly resident.

<u>Willmott Partnerships Homes Ltd</u>	£1.25m	20 September 2018	Carbon Monoxide exposure.
<u>Greencore Grocery Ltd</u>	£1m	5 September 2017	Death of contractor at bakery.
<u>Whirlpool UK Appliances Ltd</u>	£700,000	21 March 2017	Death of factory worker caused by lack of control or supervision
<u>Merlin Attractions Operations Ltd</u>	£5m	27 September 2016	Alton Towers' owners fined over Smiler crash
<u>National Grid Gas (HSE article)</u>	£4m	9 February 2021	National Grid Gas failed to ensure its records of gas risers in some high rise multi occupancy buildings were up to date. No injuries.
Breaches of section 3(1) and 2(1)			
<u>Phillips 66</u>	£1.2m	22 May 2020	Two workers suffered life-changing injuries when they were exposed to an uncontrolled release of high pressure, high temperature steam.
<u>Clancy Docwra Limited</u>	£1m	2 August 2019	An employee was struck and killed by an excavator.
<u>Faltec Europe Ltd</u>	£1.6m reduced to £1.18	28 March 2019	Five people had fallen seriously ill following an outbreak of legionnaires' disease and one worker suffered serious burns from an explosion incident that occurred at the same plant within a year.
<u>R K Civil Engineers Ltd and R K District Heating Ltd</u>	£2m	18 April 2018	Worker suffered fatal injuries
<u>Mid-UK Recycling Ltd, Managing Director and</u>	Mid-Uk: £880,000 MD: 20 weeks imprisonment	10 November 2017	Fatality of an agency worker drawn into machinery while cleaning.

<u>Operations Director</u>	t, suspended for 2 years and £50,000 fine OD: 20 weeks imprisonment, suspended for 2 years		
Breaches of section 2(1)			
<u>Calachem Limited</u>	£560,000	1 March 2021	An employee was scalded with boiling water during a cleaning operation.
<u>Wilson James Limited</u>	£850,000	2 November 2020	Fatal incident where one of their traffic marshals was fatally injured by a reversing lorry