

# ***RAC Foundation Response to Law Commission Consultation ‘Automated Vehicles: Consultation Paper 3 – A regulatory framework for automated vehicles’***

## ***About the RAC Foundation***

The RAC Foundation is a transport policy and research organisation which explores the economic, mobility, safety and environmental issues relating to roads and their users. The Foundation publishes independent and authoritative research with which it promotes informed debate and advocates policy in the interest of the responsible motorist. For more information about the RAC Foundation see [here](#).

## ***Consultation question responses***

### ***CHAPTER 4: SELF-DRIVING AND HUMAN INTERVENTION***

#### ***Consultation Question 1 (Paragraph 4.114)***

*18.1 We provisionally propose that:*

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

*Do you agree?*

We remain extremely concerned about the concept of there being a transition demand which requires the ‘user-in-charge’ to be in a position to respond in a timely manner. We do not think that (3) above goes far enough. Our view is that the definition of ‘self-driving’ should be that the vehicle is capable of safe operation and, in the event that the ‘user-in-charge’ fails to respond to a transition demand is capable of putting itself into a safe position, for example, on a motorway the absence of a response to a transition request could result in the vehicle driving itself to the next motorway service area or off-ramp. We also remain concerned about the term ‘user-in-charge’ – we would argue that self-driving only be used as a term where any occupants of the vehicle are effectively passengers.

#### ***Consultation Question 2 (Paragraph 4.115)***

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

Providing clear in-vehicle feedback to individuals with hearing loss whilst using automated vehicles is an important consideration – we can envisage various ways in which this could be

achieved through software options etc. Focusing on haptic, rather than audible feedback would be of benefit to all vehicle users (See: <https://etsc.eu/ministers-warned-weakening-of-vehicle-safety-regulations-could-lead-to-up-to-1300-extra-road-deaths-a-year/>), although employing a variety of approaches, which take account of any implications of feedback mode on different groups, should be fully considered.

## **CHAPTER 5: HOW SAFE IS SAFE ENOUGH?**

### **Consultation Question 3 (Paragraph 5.118)**

*18.3 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, particularly at the early stages of high levels of automation being introduced. It is conceivable that both the automated technologies and the systems for assessing their safety in use will develop so as to avoid the need for a vehicle-by-vehicle ministerial decision, but we are a long way away from that point as of today.

### **Consultation Question 4 (Paragraph 5.119)**

*18.4 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.*

We would support a safety standard for assessing the safety of automated vehicles being ‘as safe as a fully competent and careful human driver’. This equivalence is important for public confidence. That said, if the safety benefits being mooted for highly automated driving are to be realised then surely (c) should be the benchmark (it is hard to see how (b) would be assessed).

### **Consultation Question 5 (Paragraph 5.120)**

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

Having a comprehensive understanding of the road related circumstances and situations in which human drivers experience limitations, even when acting as a competent and careful driver would assist in the development of automated vehicles that are as safe as reasonably practical. For instance change blindness, human sight and cognitive limitations can all be improved on with automated vehicle technology. The flip side of course is understanding what human drivers do well (i.e. reading other road user behaviours and intentions) and seeking to best understand how automated vehicles can replicate the best elements of human driving.

### **Consultation Question 6 (Paragraph 5.121)**

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

Understanding in-built organisational biases is an important issue to bear in mind. This is powerfully covered by Syed (2019)<sup>1</sup>, which discussed the value of staff diversity to maximise an organisation's potential for creativity and problem solving. Understanding data bias and implications for gender inclusive policy making is also covered by Criado-Perez (2020)<sup>2</sup> and worthy of consideration in this context.

## **CHAPTER 7: ASSESSING SAFETY PRE-DEPLOYMENT**

### **Consultation Question 7 (Paragraph 7.99)**

*18.7 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. Consideration should also be given to international standardisation and harmonisation as well as having the capability to conduct independent tests on a sample of safety cases submitted. Putting a system in place that allows for an ongoing process of feedback and review will also be important to assist sector level iteration and learning.

### **Consultation Question 8 (Paragraph 7.100)**

*18.8 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.*

Should any scenario database be used as part of the testing procedure it would be advisable for the approval authority to consult with sector experts as well as with road user groups. Whilst the involvement of road user groups would bring a useful perspective to bear, and might help in developing greater and more widespread confidence in the technology, experts in, for instance, road collision investigation, human factors, safe road engineering, road safety data analysis would be more likely to be able to provide appropriate feedback on the relevance of the scenarios proposed.

## **CHAPTER 8: INITIAL APPROVALS AND CATEGORISATION – PROPOSALS**

### **Consultation Question 9 (Paragraph 8.17)**

*18.9 We provisionally propose that:*

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<sup>1</sup> Syed, M. (2019). Rebel Ideas: The Power of Diverse Thinking

<sup>2</sup> Criado-Perez, C. (2020). Invisible Women: Exposing Data Bias in a World Designed for Men.

*(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, subject to the adequacy of conditions that the Secretary of State would apply to those exemptions.

**Consultation Question 10 (Paragraph 8.25)**

*18.10 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, on the grounds that it is just possible that some companies might wish to secure a purely GB approval, particularly if the UNECE fails to swiftly get a new safety regime in place to cover high levels of automation and AI, however any GB scheme should be at least as stringent as that the UNECE adopts.

**Consultation Question 11 (Paragraph 8.43)**

*18.11 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

**Consultation Question 12 (Paragraph 8.44)**

*18.12 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.*

No comment

**Consultation Question 13 (Paragraph 8.71)**

*18.13 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, but as emphasised in our response to Q1 we see the term ‘self-driving (either with or without a user-in-charge)’ as currently presented, to be too complicated to communicate with the consumer. Overall, we agree with the overall approach proposed in Q13, but suggest different terminology is used, to more clearly set out the significantly different requirements of human drivers in ‘self-driving – with user-in-charge’ and ‘self-driving – without user in charge’ vehicles.

**Consultation Question 14 (Paragraph 8.77)**

*18.14 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.

**Consultation Question 15 (Paragraph 8.78)**

*18.15 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?*

We would suggest that the new legislation should include some provision for appeals against categorisation decisions, but do not have the knowledge or expertise to comment on whether this should be similar to regulation 19 of the Road Vehicles (Approval) Regulations 2020, although harmonisation with existing regulations, where possible, appears sensible.

**Consultation Question 16 (Paragraph 8.83)**

*18.16 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.*

As outlined in the consultation document, this approach has been both applied in other areas of safety regulation (pharmaceutical trials) and is proposed for use in this specific context (RAND Corporation proposal for graded approach to AV deployment). On this basis, and given the current stage of development and deployment of AVs, we would support the proposal for the regulator to have the power to allow vehicles classified as self-driving (or whatever naming convention agreed) to be deployed in limited numbers to further gather safety data in real-world conditions. This step should only be taken in cases where the regulator can assure themselves of the inherent safety of the AV being deployed (i.e. as safe as a competent and careful human driver), and has a framework in place to monitor the safety of those vehicles in use.

**CHAPTER 10: ASSURING SAFETY IN USE**

**Consultation Question 17 (Paragraph 10.82)**

*18.17 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

**Consultation Question 18 (Paragraph 10.83)**

*18.18 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?*

Broadly. For the leading measure proposed in 2a, the UK has a developed telematics market (linked to motor insurance), which typically measures indicators of driving behaviours that increase risk. This includes harsh acceleration, braking events as well as driving smoothness. Speed limit exceedance as well as impacts of varying levels (from full collisions, to glancing blows) can also be measured through telematic accelerometer technology. Making the best use of this available technology to understand safety and risk in the conventional vehicle parc is to be encouraged. That said, we have some concern about the implications of the phrase: “This might, for example, involve placing unobtrusive sensors on conventional vehicles in a variety of defined operational design domains.” which implies that the driver may or may not be aware that their driving behaviour is being constantly monitored. A wealth of data can be gleaned from sources outside the vehicle e.g. by monitoring traffic speeds, but if the individual is to be monitored they should be aware it is happening and it should be with their consent e.g. by their agreeing to the data being gathered and shared as part of accepting the terms and conditions of a telematic insurance policy. There should also be safeguards on how such information gathered to establish general patterns of behaviour should, or should not, be used in respect of the individuals from whom it is gathered.

That said, surely the guiding principle for regulators should be that an automated vehicle should be driven at least as well as a highly proficient, safe human driver rather than being no less safe than the average driver? It might be a difficult fit with engineering tolerances, but the Health and Safety Executive mantra of safety risk being ‘as low as reasonably practicable’ springs to mind.

We also suggest that ‘instances of bad driving which could have led to harm’ is rephrased, to a more accurate description of ‘driving behaviours that increase driver risk to self and others’. We also agree strongly with the importance of proposed powers 3a, 3b & 3c.

***Consultation Question 19 (Paragraph 10.84)***

*18.19 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?*

As outlined in the consultation document, there are important expediency issues to consider here, but much depends on the reason for the update and the rationale for not returning to the original type approval authority – an update to improve safety might usefully be fast-tracked for the domestic market.

*(2) Should the scheme should also deal with cybersecurity?*

The reasons for cybersecurity being out of scope for this Law Commission consultation is fully understood. However, we can see the case for the scheme proposed dealing with all important cybersecurity issues.

*(3) Are other powers needed? (Note that data is discussed in Chapter 17.)*

No comment

**Consultation Question 20 (Paragraph 10.100)**

*18.20 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?*

As outlined in our earlier consultation response, we continue to believe that there is no compelling safety reason why these functions should be combined into a single agency. Having separate organisations involved in the type-approval and safety assurance process reduces any potential conflicts of interest. As already mentioned by previous consultation respondents, collaboration where appropriate should be encouraged, and built into role purposes.

**Consultation Question 21 (Paragraph 10.101)**

*18.21 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)?*

Duties to consult, and the development of a standing advisory committee, are, in our view, both appropriate mechanisms to employ to assist organisational learning.

**CHAPTER 11: INVESTIGATING TRAFFIC INFRACTIONS AND COLLISIONS**

**Consultation Question 22 (Paragraph 11.24)**

*18.22 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. As outlined in the consultation document, it is vital that the scheme adopted allows for learning and that regulatory sanctions are place to achieve this end (e.g. identification of system errors, such as digital TRO updates).

**Consultation Question 23 (Paragraph 11.53)**

*18.23 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.*

*Do you agree?*

Yes.

**Consultation Question 24 (Paragraph 11.54)**

*18.24 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, though we suspect ministers will be pressed to set maximum tariffs as for other legally sanctioned monetary penalties.

**Consultation Question 25 (Paragraph 11.69)**

*18.25 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. We agree that a specialist collision investigation unit should be established to analyse data on collisions involving automated vehicles and to investigate a subset of collisions. It is important to note that the NTSB in the US also investigates near miss collisions of AVS as well as the most serious, complex and/or high-profile collisions, as significant safety learning can come from near-miss collisions. Therefore, we would recommend this is also in scope for a specialist investigation unit. The RAC Foundation expects to submit its final Road Collision Investigation Project (RCIP) report to DfT in Spring 2022, which will include a business case for developing a Road Collision Investigation Branch (RCIB) akin to the branches for rail, air and maritime. As vehicle technology develops, from driver assistance systems, through to fully automated vehicles, it is important that any future branch has the capabilities to review and investigate collisions where there is potential vehicle technology learning. We would therefore strongly support a specialist incident investigation unit for automated vehicles sitting within the RCIB that will be proposed.

**Consultation Question 26 (Paragraph 11.82)**

*18.26 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

**Consultation Question 27 (Paragraph 11.83)**

18.27 We welcome views on:

(1) the issues the forum should consider;

(2) the composition of the forum; and

(3) its processes for public engagement.

The forum should consider how all elements of the Highways Code will be adequately and appropriately taken account by developers of AVs. The forum should be composed of those with detailed knowledge of the Highway Code, experts in road user behavioural psychology and human factors, to provide insight into how human drivers interpret rules to achieve safe driving within the defined rules, and stakeholder groups (i.e. representing walking, cycling, horse-riders, micro-mobility, motorcycles, shared mobility, private & company cars, LGVS & HGVs) as well as the emergency services and relevant business sectors (i.e. HGV movements, refuse collection etc.). The public at large should be kept informed of developments and provided information about the way in which AVs are being developed to ensure their safety on public roads and should have the opportunity to respond to consultations on the forum's conclusions.

**CHAPTER 12: THE USER-IN-CHARGE**

**Consultation Question 28 (Paragraph 12.24)**

18.28 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?

We continue to have serious concerns about requirements of a 'user-in-charge', in an emergency handover situation. Research<sup>3</sup> for the RAC Foundation has shown how quickly confidence and trust is placed in a vehicle operating in automated mode. In the study, drivers showed an increasing tendency as the week progressed to use the 60-second prepare-to-drive notification period (associated with scheduled handovers) to casually dispense with their secondary activities rather than actively preparing to drive. In practice, initial driving performance after the transfer of control was poor, with high levels of lateral instability and speed variability being manifest during the ten seconds immediately following scheduled handovers. While driving performance improved significantly with experience throughout the week, and was arguably better following the emergency handover – which

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<sup>3</sup> Burnett, Large & Salanitri (2019) How will drivers interact with vehicles of the future? RAC Foundation: London. [https://www.racfoundation.org/wp-content/uploads/Automated\\_Driver\\_Simulator\\_Report\\_July\\_2019.pdf](https://www.racfoundation.org/wp-content/uploads/Automated_Driver_Simulator_Report_July_2019.pdf)

was suspected to be due to heightened driver arousal associated with the event notification – we continue to worry that there is potential for high levels of human error in any model that requires a ‘user-in-charge’ to be genuinely ready to re-take control.

**Consultation Question 29 (Paragraph 12.37)**

*18.29 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?*

No. See our concerns about ‘user-in-charge’ expressed in Q28 above. We see no reason why a vehicle that has been given regulatory clearance to operate without human control should be absolved of the requirement to stop safely if a transition demand (more properly ‘transition request’) elicits no response.

If despite these concerns, user-in-charge is progressed, a user-in-charge should only re-acquire the legal obligations of a driver providing the transition demand period is established to be in line with human cognitive abilities.

**Consultation Question 30 (Paragraph 12.45)**

*18.30 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.*

Yes, because this will be an important part of the learning to drive process, if a user-in-charge is required.

**Consultation Question 31 (Paragraph 12.53)**

*18.31 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?*

This goes to the heart of, and the problem we have with, the user-in-charge concept. If you conclude that the u-i-c concept has merit then causing or permitting the use of an automated vehicle by an unfit or unqualified user-in-charge should be an offence. But wasn't one of the original use-cases paraded for the value of automation that people with severe physical disabilities and/or sight loss would be granted their freedom by the technology? It follows that we are reluctant to offer views on the criminal sanction questions that follow.

**Consultation Question 32 (Paragraph 12.59)**

*18.32 We provisionally propose that persons carried without a user-in-charge should be guilty of a criminal offence. Do you agree?*

**Consultation Question 33 (Paragraph 12.60)**

18.33 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.

No comment

**Consultation Question 34 (Paragraph 12.66)**

18.34 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? If not, we welcome views on alternative legal tests.

No comment

**Consultation Question 35 (Paragraph 12.94)**

18.35 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?

No comment.

**Consultation Question 36 (Paragraph 12.95)**

18.36 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?

No comment

**CHAPTER 13: REMOTE OPERATION: NO USER-IN-CHARGE VEHICLES**

**Consultation Question 37 (Paragraph 13.67)**

18.37 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.

*18.38 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”.*

We are not in a position to comment – so much would depend on the extent to which the person undertaking the ‘monitoring’ is genuinely able to intervene and take control.

**Consultation Question 38 (Paragraph 13.86)**

*18.39 We provisionally propose that:*

*(4) 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);*

*(5) 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;*

*(6) 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. User initiated software updates for mobile phones are problematic, given a significant proportion of users admit to not updating their phone software as regularly as they should<sup>4</sup>. It is therefore important that all vehicles authorised for use on roads or other public places with no user-in-charge should be covered by a contract with a licensed operator for supervision and maintenance services.

**Consultation Question 39 (Paragraph 13.92)**

*18.40 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.*

We agree that a NUIC operators should be required to demonstrate professional competence through a safety management system, rather than through a qualified individual. As the consultation document states, as developments move away from passenger services, the concept of a singular traffic manager is less appropriate.

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<sup>4</sup> <https://www.racfoundation.org/research/mobility/readiness-of-the-road-network-for-connected-and-autonomous-vehicles>

**Consultation Question 40 (Paragraph 13.108)**

18.41 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.

**Consultation Question 41 (Paragraph 13.109)**

18.42 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.

**Consultation Question 42 (Paragraph 13.116)**

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

18.44 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 to the concept of a panel. Consideration should also be given to involving design researchers that have been considering the accessibility of automated vehicles in their research activities in recent years (e.g. the Royal College of Art's work on Driverless Futures - <https://www.rca.ac.uk/research-innovation/projects/gateway-driverless-transport/>)

But on requiring fixed periodic re-consulting we think it would be difficult to require a fixed cycle that would keep pace with the rapid development of technology or recognise that

development is not a linear process – scientific and technological breakthroughs can't be scheduled in that way.

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

To stay in touch a standing advisory panel should probably be convened four times a year, though not necessarily to be formally consulted each time.

**Consultation Question 43 (Paragraph 13.133)**

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

We are not in a position to recommend an existing body.

**CHAPTER 14: CRIMINAL OFFENCES BY ADSES AND THEIR SENIOR MANAGERS**

We are not in a position to offer informed opinion on criminal offences or the appropriate tariffs generally, hence we are only commenting by exception on the questions that follow. However, we would, though, offer the view that in addition to the provision of information consideration also needs to be given to an offence of not preserving evidence, either on the vehicle or elsewhere (e.g. on servers of the manufacturer), that could be required for investigation purposes (whether criminal or safety). And that while there is explicit provision for disclosing data to insurers consideration should also be given to provision made for disclosing data to statutory investigation bodies with appropriate powers.

**Consultation Question 44 (Paragraph 14.107)**

*18.46 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?*

It's not obvious why the seniority of an employee (3) should matter if a safety critical obligation has been disregarded.

**Consultation Question 45 (Paragraph 14.108)**

*18.47 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—*

*(3) to have been committed with the consent or connivance of an officer of the body corporate; or*

*(4) 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:*

*(5) related to an increased risk of a type of adverse incident; and*

*(6) an adverse incident of that type occurred; and*

*(7) 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.*

**Consultation Question 46 (Paragraph 14.109)**



18.48 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.

We support this suggested approach.

## **CHAPTER 15: NEW WRONGFUL INTERFERENCE OFFENCES**

### **Consultation Question 47 (Paragraph 15.10)**

18.49 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?

### **Consultation Question 48 (Paragraph 15.11)**

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

External infrastructure and/or software - yes

### **Consultation Question 49 (Paragraph 15.53)**

18.51 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?

In principle, yes, though it may be that the current legal framework on this is sufficient.

### **Consultation Question 50 (Paragraph 15.55)**

18.52 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?

This is very difficult – is the offence intent without regard to the (potential) consequence?

### **Consultation Question 51 (Paragraph 15.62)**

18.53 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.

## **CHAPTER 16: CIVIL LIABILITY**

### **Consultation Question 52 (Paragraph 16.24)**

18.54 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?*

**Consultation Question 53 (Paragraph 16.32)**

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

*Do you agree?*

Yes

**Consultation Question 54 (Paragraph 16.47)**

*18.56 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?*

No. Our view is that emerging technologies, including many applications of AI, need attention, but that, near term, liability for automated vehicles is posing the greatest, earliest challenge and therefore needs attention regardless of other applications.

**CHAPTER 17: ACCESS TO DATA**

**Consultation Question 55 (Paragraph 17.65)**

*18.57 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

**Consultation Question 56 (Paragraph 17.71)**

*18.58 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

**Consultation Question 57 (Paragraph 17.81)**

18.59 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?

No, three years is unlikely to be long enough – we'd suggest a minimum of five or even ten.

**Consultation Question 58 (Paragraph 17.95)**

18.60 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?

No, but only because the regulator should not have to shoulder the burden of establishing GDPR compliance – that should be a matter for the ADSE, and if found not to be compliant any liability should rest with the ADSE.