



Automated Vehicles: Summary of Consultation Paper 3 – A regulatory framework for automated vehicles

Deadline – 18 March 2021

Pinsent Masons Answers

Consultation Question 1 (Chapter 3)

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;

The purpose of 'self-driving' vehicles is to allow the passengers of the car to engage in activities which they ordinary could not engage in, such as eating and drinking, and scrolling media devices (within reason). Whilst transition demands require a user to check the vehicle every 10 seconds as an absolute maximum, any further monitoring negates the advantages created by a self-driving system and therefore should not be considered 'self-driving'. This proposal is important in order to maintain consistency across the board and to ensure that all parties involved (the user-in-charge, the ADSE, the manufacturers, etc.) understand their liability.

(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.

Although there are very strong arguments in support of this, this raises a question in respect of what the user-in-charge may or may not be allowed to do. For example, if the user-in-charge was eating and they had to re-take control of the vehicle in the next 10 seconds, it may be that that is not sufficient time for the user-in-charge to react. Further thought needs to be given to the different reaction times an individual may have depending on both the activities they are engaged in but also depending on anatomical and biological characteristics in line with the Commission's equality focus.

What constitutes 'sufficient time' may then have a direct impact then on whether a vehicle is classified as self-driving or not because if the time to act is very short, it may indirectly force users-in-charge to remain aware and engaged at all times nonetheless.

(3) to be classified as self-driving, the vehicle must be safe enough even if the human user does not intervene in response to any event except a clear and timely transition demand.

Do you agree?

Yes, agreed. But please also see the points made above.

Consultation Question 2 (Chapter 4)

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

Yes, agreed. It is of paramount importance that self-driving features do not discriminate on the basis of disabilities. As technology advances, it might be necessary to introduce a "legal duty" to ensure that it is all encompassing and accessible by all. While autonomous vehicles may enable people without disabilities to enjoy 'worry free' journeys, for many disabled people it may represent a real chance at becoming more integrated in our societies, as safer technology may

give them the courage or the mental comfort of undertaking a wider variety of activities for which they need to be mobile. Equality should therefore be a key element of any newly drafted legislation and regulations.

In particular, consideration should be given to transition demands and how they can be adapted for use in self driving cars driven by those with hearing loss, e.g. through vibrations or visual aids/flashing lights.

Consultation Question 3 (Chapter 5)

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?

It is important that a specialist regulator can fully research and test the safety of a relevant vehicle before it is deemed sufficiently safe to safely drive itself. The Secretary of State is an example of an appropriate person to oversee and make these decisions, provided it was informed by experts in the field with the appropriate level of knowledge and understanding of the technology and driving.

We agree that there should be a deciding authority and that specialist advice must be received before a decision is made. However, leaving the ultimate decision to one person has potentially significant downsides. The Secretary of State is ultimately just one person, who is politically appointed, and who is subject to various conflicting sources of pressure. We consider that a board of individuals, which may include the Secretary of State, may be better placed to make such a decision.

Board decisions have significant advantages. Members could be from various backgrounds, representing different stakeholders, they are less likely to be swayed by political pressure or lobbying activities, they take into consideration the ultimate, informed opinions, of several people as opposed to just one. We consider the board should include regulators and technicians, among others.

Consultation Question 4 (Chapter 5)

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.

Given the variety of aspects and situations that need to be considered before one can reach the conclusion that an AV is 'safe', we consider that any measurements should involve a mixture of these standards. However, as it was highlighted throughout the chapter, the second standard may not be a very reliable one to use without context, as most human drivers who cause accidents at the moment are not necessarily careful and competent. The second standard may be a good threshold to have in order to establish how much safer AVs are compared to human drivers (because by referencing the 'no fault', the standard will include situations in which human drivers do not normally cause accidents but in which AVs may - see children and ice cream van scenario included in the chapter). Therefore, if used, this standard should allow some leeway for no fault accidents, acknowledging that some situations will create unavoidable risk that even a safe and competent driver would not be able to respond to.

The average human driver may not be competent and careful, and some accidents happen without the existence of any fault, meaning that these two standards are inappropriate. Additionally, the 'reasonably practicable' standard will be incredibly dependent on emergent technology and advances in technology. Therefore, a competent and careful driver, when considered contextually, could be the most appropriate standard for 'safe enough'. Such requirements may also not be consistent with the aim of AVs which is to reduce accidents – so

we believe a higher standard should be expected in order to facilitate a step change in road safety.

Consultation Question 5 (Chapter 5)

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

A robust and comprehensive approval process, undertaken by experts with the relevant knowledge and research, informed by the most up-to-date technological and safety information, will be required to make automated vehicles as safe as reasonably practicable. Any approvals must be backed up by continued software and technology updates by a regulator capable of monitoring infractions, accidents, and software malfunctions to respond appropriately and withdraw approvals where necessary.

We agree with the views put forward in the chapter that AVs may present a real danger to other human drivers, but we also agree that significant advancements are limited as long as AVs are not allowed on public roads. Therefore, in addition to all the other suggestions included in the chapter, we propose that AVs are allowed on specific sections of public roads, where human drivers/ pedestrians will be notified in advance that AVs may be in motion and that they should be careful as a result. This will create a semi-controlled real life testing environment which could really improve the overall safety of AVs, and it may also help to get the public accustomed to the idea of having AVs on public roads. This can mirror the approach taken for electric scooters.

For AVs the amount of data available will be key to making them safer. Therefore, it is important that governments review the data they are currently collecting and which may be relevant, and expand on what information is collected. Ways should be explored to encourage those in the AV ecosystem to share data more readily.

Consultation Question 6 (Chapter 5)

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

Automated vehicles should be designed with equality in mind, which means system development and testing should include:

- *Scenarios involving a wide and diverse range of people, with a particular focus on ability and people of differing mobility functions, visual or audial impairments etc;*
- *The design of the vehicle itself should enable users with various characteristics and disabilities to use them safely;*
- *The design of the ADS should be developed such as it allows people with hearing impairments for example to take back control of the car in response to transition demands safely and quickly.*

Regulators can consider the possibility of use of self-driving systems for persons with disabilities, and the opportunities that technological and legal advancements in this sector can afford. However, it is nonetheless vital that all steps are taken with safety as the highest priority, and any opportunities should not come at the cost of safety assurance.

Consultation Question 7 (Chapter 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?

Given that we do not yet precisely know the capabilities and limits of this technology, it's important to make sure that each vehicle is only operated in a way that is confirmed to be safe. The best way to do this is to use a variety of techniques as recommended by experts and adapted appropriately to updated information as and when it becomes available.

We propose that at least for an initial period of time, there is a requirement that regulators review the safety assessment and the safety cases on a period basis. Unlike existing industries which use safety cases and for which safety systems are tested, AVs are in the unique position that they will arguably become safer with time, more precisely, the more time they spend on public roads. Therefore, there is a very good argument to require manufacturers and developers to go through the safety assessment periodically.

The assessment could review how the AVs have responded to the risks identified in the assessment documentation, if there were any unexpected situations and if yes, how they have been dealt with and how the safety documentation has been altered as a result. It's vital that as much information as possible is provided to ensure the safe use of these cars through testing, trialling and piloting, and there should be a burden on manufacturers and developers to ensure and be able to prove this level of safety. However, it is nonetheless important that these information requirements are not so costly as to form an insurmountable hurdle to new entrants to the automated vehicle market.

Careful consideration must be given to the safety of automated driving technology to fully understand the limitations and capabilities. As noted in the consultation paper, late intervention could jeopardise safety, and so early and thorough guidelines and auditing will best safeguard users and developers alike. The suggestion of a documentation package dealing with function and operational safety, setting out the manufacturer's safety concept seems like a proportionate and risk-averse approach to regulation.

Consultation Question 8 (Chapter 7)

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.

It's vital that the safety issue is considered from a wide range of viewpoints, as different user groups will have different priorities and concerns. Consulting different road users may bring to light scenarios which may not have otherwise been identified. In the case of automated technology it is of paramount importance that a very diverse range of individuals and stakeholders are involved in the processes to ensure that a wide breadth of scenarios will be covered. Only an approach using a scenario database which attempts to encompass as many perspectives as possible will be sufficient to ensure safety to all road users.

Consultation Question 9 (Chapter 8)

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?

We agree with this proposal, though we propose that there should be non-exhaustive guidelines which give manufacturers and developers an understanding of the criteria under which exemptions may be granted.

This is a similar approach to the introduction of products such as electric scooters – where they are prima facie prohibited, but their use is enabled in certain areas through exemption zones. In this way, there are no grey areas for use pending approval, and only approved, tested, and fully regulated vehicles and systems will be deployed on the road, once the responsible entities are clearly registered and identifiable if necessary. In the interim, road users are alerted to the heightened risk as a result of these exemption zones and so extra care can be taken to mitigate any risk.

Consultation Question 10 (Chapter 8)

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?

Any vehicles should be assessed based on the type of technology and proposed use to adequately assess safety, limitations and capabilities. A two-step process which categorises the technology into the relevant type can look more closely at the specific safety requirements of that technology, ensuring the utmost safety of users and road users more generally. Equally, where UNECE type approval is obtained, the UK can as a result of Brexit go both ‘further and faster’ in terms of regulation at a UK self-driving categorisation level. Hopefully, this will mean that fast-paced regulatory advancements in response to technological process can be implemented at this second step where necessary, and as further information becomes available.

Equally, the categorisation process is necessary in order to assess the legal framework necessary for each type of technology: this could necessitate the development of a number of different considerations by the UK safety assurance agency to account for the different levels of technological sophistication and how that impacts risk.

However, the natural question that arises is how any discrepancies between the two approval systems will be dealt with. In particular, what will happen if for example the international system adopts a more relaxed approach compared to the UK system? The regulations should be clear whether there will be any circumstances/exceptions where a vehicle was approved under the international approval system but which would not be allowed on public roads in Great Britain. Further guidance would be required of who would qualify as a developer. We argue that only those developers which meet certain criteria be allowed to apply for national approval (e.g. having certain liability insurances in place).

Consultation Question 11 (Chapter 8)

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?

We would agree with this approach based on need to push any regulation or legislation through fairly quickly in response to rapidly advancing technology, and that regulations can more easily be revoked or amended as information is updated and understanding improves. We further understand there were various drawbacks of the AEVA where technology was coming out quicker than legislation can be enacted to regulate it. There is a risk of the draft ADS approval scheme being outdated due to technological advances by the time it becomes law, and regulation under the RTA rather than through legislative reform will better ameliorate this risk.

A "type" of vehicle is a fairly general and open definition but it nonetheless seems appropriately all-encompassing as a result. The flexibility provided by a wide definition will mean that as technology improves/changes it will remain caught by this definition, and that less extensive updates to a system will nonetheless be subject to any ADS approval scheme, which is in the interests of safety.

Limits on the type of vehicle and requirements for installation should increase control over the use of the technology to ensure safety and accountability. There must be opportunity for extension of any approval to more installation techniques or types of vehicles where updated information requires.

Assuming that the installation technique will subsequently be approved or denied - and then the technology will have to be installed in that way each time, this seems to be a sensible approach. As noted above, it is important that any updated information/techniques are able to be re-submitted where safety/cost/efficiency gains can be made.

Consultation Question 12 (Chapter 8)

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 (Chapter 8)

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.

This is the correct approach as we need to ensure that the system can safely operate on UK roads and with recourse available to the UK regulators through an identified and sufficiently funded entity. It would be impractical to allow an internationally approved entity to safely drive under regulations where the regulator would have no way to monitor or control the system through a responsible ADSE. The categorisation and classification step is important because some experts believe that it might be easier for industry to focus their attention on developing highly automated "Level 4" vehicles or even fully automated "Level 5" vehicles so as to avoid the liability issues which come with partial or conditional autonomy – where a system does not allow for the possibility of partial or conditional autonomy, the safety hurdles should be adjusted accordingly.

However, questions arise in respect of liability and legal implications of the ADSE. As explained in the chapter, it is envisaged that the definition of ADSE captures a variety of entities. Whilst we agree that the definition may need to be wide enough to cover different scenarios, questions arise as to how responsibilities will be divided in practice. If the ADSE is a company established as a result of a partnership or collaboration of a manufacturer and developer for example, there will need to be specific regulations/legislation, dealing with how the parties will split responsibility and legal liability. Without legislation dealing with such concerns, the parties may take cover under contract law doctrines and seek to minimise their exposure and liability.

Consultation Question 14 (Chapter 8)

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?

We would stress that such legislation should aim to bring consistency as well as consolidating existing regulations. In particular, these criteria and procedures should be subject to constant revision to keep in line with rapid technological innovation and/or updates in our understanding of the capabilities, limits and safety of the technology. More flexible and agile forms of legislation could also be considered that can more readily track technology, or which focuses on achieving specific outcomes for the benefit of citizens and the environment, whilst giving businesses flexibility on how they achieve those outcomes.

Consultation Question 15 (Chapter 8)

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?

The manufacturer/developer should be best placed to understand the envisaged use and operation of the vehicle that they have submitted for categorisation, and as the regulators respond to evolving technology and updated information there should be room for decisions to be re-considered in light of new evidence. We also argue that the decision makers have a right/duty to re-assess the classification of a vehicle after a certain period of time of the vehicle being used on public roads. This would be an important right especially in the beginning, whilst ADS technology is still in its infancy and the differences between Level 3 and Level 4 AVs for example are still blurred.

We have no comment on the second part of the question.

Consultation Question 16 (Chapter 8)

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.

This seems a sensible approach, mirroring the approach taken under the RTA for vehicles such as electric scooters. A limited deployment in the first instance should provide a good insight into the capabilities and limits – and more importantly the safety – of electric vehicles in advance of a wider roll out. Such an approach is necessary to achieve a balance between obtaining necessary data to improve the systems and testing their adequacy to ensure public safety.

Consultation Question 17 (Chapter 10)

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?

It is vital that regulators are able to adapt to increased knowledge and understanding of the capabilities of technology, as well as technological advancements. Enhanced responsibilities and powers would allow the regulators to respond to any changes without having to monitor or test for certain flaws or functionalities at the initial approval stage.

However, we argue that it is important to not over-complicate the regulatory regime. It is important that the different regulatory approvals that an ADSE/manufacture/developer must obtain in respect of a vehicle (type approval, initial safety approval, continued safety approval, categorisation, etc.) must be aligned, reasonably easy to understand how they work but also how they fit in together. It is important that if different regulators will be responsible for the different types of approvals that must be obtained, there is a duty on the regulators as well to communicate efficiently with one another. Therefore, we propose that any new regulations deal with this point. Whilst we acknowledge that certain regulators (like UNECE) may exist at an international level, and so the UK will not have power over such decision making, the UK legislation should still explicitly provide for how it will deal with such situations and how it will ensure continued good management at a domestic level.

Consultation Question 18 (Chapter 10)

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?

This must be a constantly adapting area of law as technology evolves and it's important that regulators are given the tools to keep up and ensure continued compliance in this ever-changing landscape. The above package of responsibilities and powers seems like an appropriate starting place, to be continually monitored as more information becomes available. It is important for regulators to collect a wide variety of data to ensure that evaluations can be carried out in a contextual way to ensure accurate and pertinent results.

However, it must be taken into consideration what any obligation to update software would entail. If it is a general obligation that maps should be up-to-date at where possible, this may be a reasonable requirement. However, if the requirement implies that the maps must be kept up-

to-date at all times, then such a requirement may not be reasonably enforceable. As it was pointed out in the chapter, the update capabilities depend significantly on mobile networks capabilities which are outside an ADSE's control.

Although the regulations could be caveated to allow for circumstances outside an ADSE's control, this does not eliminate the safety concerns that arise if the maps system cannot be updated on short notice. There are two specific situations which must be considered:

- 1. Where the user-in-charge is in an area which does not have the necessary mobile network coverage for the update to be done for a prolonged period of time. Will the users and those of other drivers' safety be jeopardised as a result of such a failure to update?*
- 2. If these updates are so dependent on mobile networks, a question arises whether users may need to ensure (or even be obliged to ensure) that they live in an area which has suitable coverage before they purchase a vehicle (e.g. someone based in a predominantly rural area would not be able to purchase such a system).*

As regards the requirement to communicate information to users effectively, We consider it is very important that particular thought is given to the description of the systems. Names, information and updates should not be confusing, misleading or difficult to understand (by reference to a reasonable person).

In addition, further consideration needs to be given to the training requirement. Although we consider that users will benefit from additional training in respect of using ADSs, it is not necessarily clear who will be best placed to offer the training and what the training should consist of. In respect of the former, the obligation to provide training may arguably lie with either (1) the manufacturer/developer; (2) the ADSE (if different to (1)); (3) the distributor/seller; (4) a separate third party (like the DVSA). There are arguments for and against each of these parties being best placed to provide training for users. In respect of the latter, we consider that the contents of the training and the way in which the training should be delivered should remain flexible.

However, regulations should provide some general guidance as to the minimum requirements that the training must meet. For example, we consider that providing training in the form of a written guide is not sufficient. It is important that the regulations are drafted so that the provision of training does not merely become a tick box exercise, as it may very well be key in ensuring the overall safety of AVs (particular reference is here made to users needing to get used to switch from passive monitoring to actually taking control of the vehicle).

Consultation Question 19 (Chapter 10)

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 also deal with cybersecurity?
- (3) Are other powers needed? (Note that data is discussed in Chapter 17.)

The scheme regulators can work at a more specific and focussed level than the type approval authority, with a more specified set of powers. It is also really important that cybersecurity is addressed as the susceptibility to hacking is a key concern. Personal data and location statistics could be accessed by cyber criminals, and if control over a vehicle were obtained through a hack, this could cause dire consequences.

We therefore partially agree with this proposal. Such a decision needs to be made by balancing the need to keep systems up-to-date and not get slowed down by bureaucracy, but also by considering the overall safety of vehicles. Although we see the appeal in giving national approval in respect of updates, past experience warns us that not considering carefully the vehicle on the whole may have devastating consequences.

There are already inherent risks that the process of obtaining type approval may at times be a tick box exercise which does not account for how the vehicle will function on the roads (for instance the VW scandal), there are also risks from the fact that we may be in a situation where a vehicle will have to obtain approvals from several separate regulators/agencies, therefore, there is a real risk that by removing the need to obtain approval from the type approval authority, inadvertent or even direct consequences of such updates may be missed.

We should be very cautious in fragmenting the regulatory process more.

Consultation Question 20 (Chapter 10)

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?

The current case should remain the same so that the two should have different priorities and different powers, more specifically tailored to the tasks they perform and responsibilities they hold. There is a risk of overloading the authorities were the process combined in a single body, though we accept the advantages of a streamlined approach undertaken by a single entity.

We therefore believe it would be best to keep the authorities separate and build on the existing system. Although we acknowledge the danger that there will be situations which may slip through the cracks/lack of communication, overall we believe it is important to maintain the two functions separately as they serve fundamentally different purposes.

It is also important, as Uber noted, that we reduce administrative overhauls whilst the technology is still in its early stages and develops at a very fast pace. If, in a few years time, when the technology is more established, there will be evidence that having the agencies under two different bodies is not very effective, the decision to unite the two will be based on concrete evidence and may possibly be done in a more efficient manner than it would be done now.

Consultation Question 21 (Chapter 10)

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)?

Consultations such as this automated vehicles consultation series are effective in ensuring that all stakeholders are able to comment on the content and implementation of the scheme and we suggest that this approach is carried forward. An advisory committee formed of experts and various stakeholders can also ensure transparency and accountability in light of the nature of the decisions made by the regulator. The regulatory bodies should therefore be made of members pertaining to different stakeholder groups. In addition, there should be an overarching advisory committee that should meet periodically (e.g. every 12 months) to review the activity of the two bodies and to attempt to identify any cases that slipped to the cracks or any situations in which the two bodies should have communicated more.

Consultation Question 22 (Chapter 11)

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?

It is clearly important that more than just fines are issued based on the infractions, their frequency and their consequences to ensure that ADSEs cannot just take a cost-benefit

approach in terms of recalling technology which is prone to certain infractions, but instead must show continued compliance with traffic law. However, we believe a flexible range of regulatory sanctions may necessarily resolve underlying issues. With human drivers, it is fairly easy to ascertain where the fault lies and what they did wrong. However, with ADSEs, it may not be equally clear if the fault lies with the ADS or it is due to an external factor (e.g. telecommunications/infrastructure failure) or both. The sanctions would have to make provision for such situations as well.

The concern that remains is that if the fault results due to an external factor, we may be in a situation where no one will be held responsible which is not desirable, or where even if someone is held responsible no real changes are implemented (e.g. some TROs will continue to not be available in digital form). The regulatory framework should seek to deal with sanctions applicable not just to the ADSE. Ensuring the safety of AVs and of the general public should be a joint effort and everyone should be equally stimulated to participate, learn and improve (particularly where there may be significant costs to rectify any potential problems).

The other question needs careful consideration as to what those regulatory sanctions will be. Although we agree that there should be an applicable scale, there are concerns that they may not be effective. Even with human drivers we see that people continue to speed even after being penalised/fined. As ADSEs will be responsible for a large number of vehicles, if they do not comply with a sanction (for whatever reason), their failure to comply may have an impact on a large number of people (as opposed to if a human driver does not comply, in which case they may be a danger to society, but less so than an entire fleet of vehicles). The sanctions will have to be sufficient to avoid situations in which ADSEs do not take actions to resolve any faults.

Consultation Question 23 (Chapter 11)

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?

This seems like a considered and well-rounded approach which can be taken to holistically approach the regulation of ADSEs. These sanctions can be used in combination or as standalone measures where appropriate to deter behaviours or promote technological and safety updates. However, the regulations should be clear about what will happen to vehicles already in use if authorisation is suspended or withdrawn. Will users be prohibited to use the vehicles for the duration of the suspension or from thereon? Presumably without the oversight of the ADSE the vehicles would no longer be deemed safe. If that is the case, will users be compensated or how will the effect on individual users be dealt with?

Consultation Question 24 (Chapter 11)

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?

We would agree with this approach, as it seems appropriate that the level of fines or other sanctions should be discretionary based on the behaviour and number of infractions. However, any discretion should be limited as regards fines, and there would ideally be a framework for deciding on the choice of sanction where appropriate. Therefore, some guidance of how penalties will be imposed may be useful to ensure there is consistency and fairness in the way monetary penalties are given. For example, we argue that for repeat offences and breaches the penalties should increase, and similarly the offences should be cumulative so the more an ADSE is found at fault for, the higher the penalty should be/ the more severe the consequences.

The regulator should also have power to check after a period of time if the recommended preventative measures have been put into place and if not to impose additional sanctions.

Consultation Question 25 (Chapter 11)

We provisionally propose that a specialist collision 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?

In the interests of safety, a body created to investigate collisions purely in the interests of increasing the safety of road users seems like a sensible proposal. Manufacturers, developers, and other stakeholders may be more inclined to provide data on the understanding that safety improvement recommendations will be made without the consideration of allocating blame to the user, developer, or other parties. The provision of data for this limited use will equally be more comfortable, in particular personal location data, on the understanding that it can be anonymised and remain useful to the unit in understanding the safety limitations of the system.

However, a specialist collision unit should not be established to investigate only the most serious, complex or high-profile collisions. Although we see the appeal in getting the unit involved only in the most serious cases, this may be an oversight. It is quite possible that by analysing smaller accidents, the unit could start to observe patterns and could identify bigger faults/issues before they lead to a serious more complex collision. The other potential problem with splitting the responsibility is that a decision will need to be made of when a collision is 'complex' enough to be referred to the unit, which will undoubtedly involve a level of subjectivity on the one hand, as well as a sense of competition or pride between agencies and having cases 'taken away' from them.

We believe the efficiency of the unit may be compromised by having a split responsibility and that overall it would be better for the unit to have general oversight of all collisions.

Consultation Question 26 (Chapter 11)

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?

This is an emerging technology that will impact different groups in different ways and so a collaborative approach considering a range of viewpoints should be taken. The forum should be made of a variety of stakeholders including: OEMs, developers, legislators, regulators, etc.

With technology moving so quickly, the government cannot develop a future regulatory system fit for purpose and which meets the needs of transport users and transport providers by itself. It

is therefore imperative that stakeholder feedback is obtained. The process may allow for different ways of public engagement:

- *The meetings of the forum should be public;*
- *The public should have a way to submit ideas for discussions during the meetings; and*
- *Consultation papers should be issued to obtain the views of different proposals.*

Consultation Question 27 (Chapter 11)

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 use of industry and public consultations should be considered, and the forum should be composed of representatives of users, manufacturers, developers and regulators to ensure an outcome suitable for as many stakeholders as possible is sought. The forum should consider how the existing legislation may be adapted to permit the circulation of AVs and what some rough standards of implementing the legislation in the ADS may look like.

Consultation Question 28 (Chapter 12)

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

- (1) should be defined as an individual in a 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?

It would be inappropriate for a UIC to be liable for penalties which arise out of dynamic driving, within reason. These definitions would be extremely situation-dependent and any regulation should reflect this.

Consultation Question 29 (Chapter 12)

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?

It is the responsibility of the UIC to respond to transition demands within the time permitted and they cannot be excused from liability for failure to respond to a demand, as they have assumed the responsibility of a user-in-charge. It is in the interests of safety that a vehicle will stop after failure to respond to a transition demand and from that perspective it is the UIC's responsibility to take control of the vehicle.

However, as it was pointed out earlier in the consultation paper, the time which a user is given to take back control may not be sufficient for the individual to adjust.

The proposal is fair as long as the user is actively able to regain control. Therefore, it must be considered if a certain minimum standard notice period must be given to users-in-charge before

they have to take back control and whether it is necessary that users are 'tested' before they drive an AV. Although training is necessary, as it was discussed earlier, it may not be sufficient. Depending on how training will be provided, it may be more or less efficient. Moreover, it is also important to consider other human factors that may play a role:

- Individuals may be overexcited to own an AV and underestimate the responsibility they have;
- Individuals may not actually understand their exact responsibilities;
- Their role may be downplayed at the point of purchase by salesman or it may not be sufficiently clearly explained.

Therefore, the proposal is acceptable as long as systems are put into place to ensure that users will be ready to take over and understand their actual responsibilities.

Consultation Question 30 (Chapter 12)

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.

These rules should be no more strict or onerous as those applying to users of non-automated vehicles and this proposal is in line with that. However, individuals should not be allowed to complete all their learning on an AV. We consider that until the technology is more advanced, individuals should still do the majority of their learning on a traditional vehicle so as to ensure that if they are able in a situation where they have to take control, they feel comfortable to do so and understand the practicalities of driving without an ADS.

Consultation Question 31(Chapter 12)

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?

It is important that a vehicle which is capable of dynamic driving is not able to be used by someone who is not fit to take control in case of a transition demand, in the interests of safety and the possible limitations of the automated technology. However, we have difficulty understanding how this will be enforced. In many of these situations, especially if they involve inebriated individuals, the evidence will turn into a 'he said - she said' situation. Furthermore, it is arguably overreaching to hold someone in the passenger seat criminally liable for making any comments which may have encouraged someone to become a user-in-charge. It may well be that the user misunderstood the passenger, or that the passenger did not know any better, etc. Tort law has well established the principle that 'we are not our brothers' keepers' and new legislation should not seek to change it.

It is ultimately the responsibility of the person who becomes the 'user-in-charge' and they are the ones who should be held responsible, unless they were coerced or forced in some other manner and so they could not be held responsible.

The other aspect that must be taken into consideration due to the definition of the user-in-charge is for example where a drunken group of friends get into an AV, one in the passenger seat. One or more of the other friends remain on the outside and attempt to control the vehicle through an app. As they are all in sight of the vehicle and they all could take control of it, it is very difficult to establish who would bear the responsibility. Although this scenario may not be encountered very often it is a possibility. We consider that the limits of the 'user-in-charge' definition should be very carefully considered.

Consultation Question 32 (Chapter 12)

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

Yes – subject to the below.

Consultation Question 33 (Chapter 12)

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.

Where for example the person is not aware of the lack of UIC, or reasonably believed that there was a fit UIC capable of taking control of the vehicle present, there should not be any liability for a passenger. This protects those using ADS for taxi-like purposes (HARPS), and in particular those that had no reason to suspect that the vehicle did not have a UIC, or required one. It is important to deter people from seeking to escape responsibility, but at the same time it is important to make the law flexible enough to allow for situations where it would not be fair/reasonable to hold someone responsible (e.g. blind individuals, mentally impaired or disabled individuals, children, etc.).

However, as more Level 4 and 5 AVs make their way onto the market, it can be argued that passengers should no longer be held criminally liable even if they know there is no user-in-charge in the vehicle. The allocation of liability should be closely linked to the proficiency of the ADS (what level of autonomy is assigned to the car). While criminal liability as proposed may be acceptable for Level 3 vehicles, we do not consider it should apply for Levels 4 and 5. However, this does bring the question of will individuals know to differentiate between the different types of vehicles and to know what their responsibilities are.

Consultation Question 34 (Chapter 12)

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.

This seems reasonable as it would be inappropriate to hold a UIC to a higher standard than that of a competent and careful driver, and such a standard would act as a deterrent to the use of this emerging technology if that were the case. We also consider that clear warnings may avoid Scenario 2 examples. For example, if the ADS identifies unusual circumstances it can notify the driver that it is aware that there are exceptional circumstances ahead. Whilst such warnings may not always be possible, in most cases they should be since AVs will most likely respect laws as to speed and distance.

Consultation Question 35 (Chapter 12)

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?

It is important that there is no 'legal loophole' created surrounding these legal requirements in the automated vehicle regime, and the UIC seems to be the most appropriate person to assess and be responsible for these duties, particularly as they should be a licensed driver (at least provisionally). Although we agree that the user-in-charge should be responsible if they fail to update the software (however please note our comments for question 18), it is difficult to draw a line of where the user-in-charge should be responsible and where the ADSE will be responsible. This is especially applicable for new drivers who do not have much experience with hers (and particularly if their experience will be mostly on AVs).

We consider that the ADSE would be in a better position to be held responsible as in the case of AVs, it will be the software which will identify any potential problems. If the software identifies such issues it should seek to restrict the user's ability to use the AV. If the user then ignores the ADS, then we consider they may be held liable.

Consultation Question 36 (Chapter 12)

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?

As above, it is important that there are no gaps created as a result of the different parties involved in the case of ADS, but also that there are continued incentives for developers and UICs to maintain the highest standards of safety. Therefore, a power to clarify those roadworthiness failings which are and are not the responsibility of the UIC would be useful to road users in general from a safety perspective, and also UICs / developers in understanding the risks they are subject to. Please see our comments for question 35 and such decisions should also be made after consultation with stakeholders.

Consultation Question 37 (Chapter 13)

We provisionally propose that:

- (1) where an individual is exercising lateral 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?

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".

Situations where a vehicle is being controlled remotely would fit more neatly into the self-driving regulatory landscape than not. The definition under the AEVA currently reads 'a vehicle is "driving itself" if it is operating in a mode in which it is not being controlled, and does not need to be monitored, by an individual' – this would certainly need to be amended to include scope for monitoring, either by an ADS or individual operating remotely. Perhaps some extra wording around the individual could be included e.g. 'does not need to be monitored by an individual in the driving seat'. If a user is told that they may (for example) check their emails while the system is engaged, we do not think that they can be blamed for a collision caused by the remote operator while they are distracted from the driving task.

But careful consideration will need to be given to the situations in which remote control would be overtaken by an individual. Individuals should not be able to take remote control unless requested by the ADS, and the individuals should be specifically employed and trained to deal with such scenarios (e.g. like air traffic controllers), and the ADSE should remain liable for the acts of the employees.

If a vehicle requires a degree of monitoring it should not generally speaking be classified as self-driving (within the meaning of levels 4 and 5). However, the regulatory regime should differentiate between users-in-charge who are placed in the vehicle and remote controllers, who may control the vehicle by virtue of seeing it on a screen for example. The regulations should seek to provide forms of liability for the latter category as well, but we consider that it may not be correct for them to be considered 'drivers' in all instances. Their potential liability and the offences attached to it should be closely linked to the extent to which they monitor the vehicle and to the extent to which they can take control of the vehicle at will (as opposed to when prompted by the AV).

Consultation Question 38 (Chapter 13)

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?

The regulation should distinguish between an ADSE and an operator for the purposes of assigning responsibility. In the case where an accident or infraction is caused by the system, the ADSE will nonetheless be accountable, though in other cases the operation of the particular vehicle may be flawed and in those circumstances the operator should be responsible. All vehicles for use on roads with no UIC should be operated either by a licensed operator or covered by contract with a licensed operator for supervision and maintenance to ensure that there always exists a party who may be held responsible for any accident. It should for this same reason be a criminal offence to use a NUIC on a public way unless operated by a licensed operator or covered by a contract for supervision and maintenance services so that someone is held responsible for maintenance of and adherence to safety standards, and in case of accidents or damage caused to other road users etc., there is someone with sufficient funds that may be held accountable monetarily or otherwise. In case of accidents/damage, it is also important to have an operator or ADSE who is collecting sufficient data to determine what went wrong and why, so that any flaw in the system or safety limitation may be recognised, or the future risk of such incident occurring may be minimised.

We do see possible problems in respect of sharing responsibilities (if the two notions and roles are kept separate regulations have to be very clear as to who is responsible for what and if a situation appears which is not specifically included, how it will be decided who bears the responsibility). Moreover, there may also be an element of duplication in terms of reporting obligations, which again may have to be resolved through regulation. Although it is important to maintain the sector competitive, the decision should be made in light of the practicalities involved in keeping the two roles separate and by taking a realistic approach of how much regulations can govern the roles in practice.

Another aspect to be considered is that the argument of driving up competitively may be a mere illusion, as there will be nothing stopping big OEMs or developers from having both roles, which would defeat the main argument for keeping the roles separate.

Consultation Question 39 (Chapter 13)

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.

An operator responsible for the operation of individual vehicles only should be required to demonstrate professional competence for the same reason that an ADSE, manufacturer, or developer should be required to - through a safety case. A NUIC is taking responsibility for the safety of the vehicles they are operating and so should be able to show that they have taken all necessary measures to ensure that safety is not inhibited by the operation of the system in a NUIC way.

In the case of AVs, whether a vehicle is safe or not, will depend on a variety of factors that require different expertise. In order to make an accurate assessment, operators should take all relevant factors into account. Therefore, having an entire safety management system, as opposed to relying on one or two roles, can only drive safety levels up and ensure better compliance. The human error element must also be taken into consideration - it may be argued that it would be unreasonable to place safety decisions on a single individual/role, whereas an entire safety system is less likely to make a mistake or oversee an issue.

Consultation Question 40 (Chapter 13)

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?

A licensed operator should be required to supervise and maintain the vehicle through services at regular intervals etc., in particular because there may be no user in charge, but equally because any user in charge who is in possession of a valid driving license may nonetheless not understand the requirements of emerging technology. There should nonetheless be a requirement on the vehicle owner to present the vehicle for supervision and maintenance where applicable, e.g. annually for supervision and maintenance checks. Ideally the licensed operator would be able to install safety-critical updates, maintain cyber security, and report accidents remotely, but there should be an obligation to call the vehicle in for maintenance/testing where necessary to ensure safety is maintained.

We agree that insurance could be an obligation which could be easily passed on to the registered keeper. However, similar to the concerns raised in the second consultation paper, we believe it would be preferable and more safe to have a licensed operator be in charge and responsible for all other matters, at least until the technology becomes common enough (and understood enough) so individuals can be trusted to take these responsibilities on.

As the maintenance and upkeep of AVs will involve specific technical knowledge (even in respect of something as simple as changing a light), we do not believe it would be safe to allow unauthorised users to make any changes or entrust the responsibilities onto them.

Consultation Question 41 (Chapter 13)

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, as noted above, the registered keeper or owner may be required to present the vehicle for testing, supervision or maintenance services, which may be at either the owner/keeper or operator's expense, depending on the agreement reached between them. Even where an operator may be able to exercise latitudinal and longitudinal control over a vehicle, it may nonetheless be inappropriate for the operator to be able to bring the vehicle in for supervision/maintenance/software updates at their own convenience, without consulting with the keeper/owner, and so this obligation cannot fall solely on the operator.

Consultation Question 42 (Chapter 13)

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

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?

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

We agree with all the above proposals.

It is difficult to suggest an appropriate period of time as a balance has to be reached between not creating unnecessary bureaucracy and still meeting often enough to ensure regulations are kept up-to-date. It may be that any time between every 1-3 years would be reasonable.

Consultation Question 43 (Chapter 13)

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

Until technology further develops to understand any practical difficulties, we believe the Transport Commissioner would be better placed to administer the licensing scheme. There are clear advantages of having one licensing regime, including: simplified system, enabling owners to use one authority for both traditional and ADS vehicles, the ability to draw from existing practices, etc. We understand the concerns and the argument for requiring specialised individuals to deal with the licensing of AVs, but we believe this could be easily dealt with by additional hiring and training under the Transport Commissioner's authority.

Consultation Question 44 (Chapter 14)

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?

As noted in the consultation paper, without a clear change to criminal liability, there is a risk that users may receive mixed messages and then be blamed for incidents they can do little about. It is therefore important that a robust criminal liability change is made – making all parties liable for those incidents that they have some responsibility for. This must start at the beginning of the process - with the ADSE held responsible for any misleading information provided when the vehicle is put forward for classification, or when responding to the information requests from the regulator. In this way, the landscape can efficiently and effectively hold the right party to account in the case of any incident.

Consultation Question 45 (Chapter 14)

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.

As explained in the paper, the safety assurance scheme will start off relatively responsive and become increasingly prescriptive as and when regulators become better suited to understanding how safe is safe enough. Under such a regime, regulators rely heavily on the safety case as submitted by the ADSE. On this basis, an ADSE who honestly complies with all requirements would not be blamed for an adverse outcome or face criminal penalties. At the other end, a dishonest ADSE who misrepresents or fails to disclose aspects of the safety case could result in deaths, serious injuries, meaning a high level of responsibility rests with the ADSE. As a result of this, serious penalties are justified in the case of non-disclosure and misleading information in the safety case.

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.

As noted above, at least initially, ADSEs will hold significantly more information about ADSs than the regulators, and so non-disclosure and misleading information should carry severe penalties. In both instances though, there should be some exception for innocent non-disclosure, or a grace period to rectify non-disclosure when identified by the regulators. If the regulator required specific information we do not think it would be fair or reasonable to have such a defence. The reason for the defence in scenario A is because the ADSE may take the view that the information was not relevant by virtue of the defence. However, if the ADSE is required to give specific information we do not see how such a defence would be applicable.

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.

Agreed. The same offence should also be committed if the officers did not ensure a reasonable due diligence process which would have enabled for the relevant information to come to their attention – i.e. a reasonable officer of the body corporate would have found out, if this is not covered by the negligence offence.

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.

Agreed

Consultation Question 46 (Chapter 14)

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.

Whilst this is quite a high standard, it is nonetheless an important and proportionate one: It should not be an available option for ADSEs to be able to 'hide' safety-critical information in a lengthy report or safety case, running the risk that the regulator may not appreciate the impact of such information, or fail to note it at all. This can be an easy attempt to remove such a danger without imposing an unreasonable obligation or undue burden on ADSEs.

Consultation Question 47 (Chapter 15)

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?

Section 25 of the RTA 1988 only applies to a person who 'gets on to the vehicle' or 'tampers with the brake or other part of its mechanism'. In light of the introduction of ADSs, this section needs to be extended to software and all physical parts of a vehicle rather than just mechanics. We would suggest that the tampering offence apply to external infrastructure required for the operation of the automated vehicle as well, in addition to certain hacking-related offences.

Consultation Question 49 (Chapter 15)

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?

This seems appropriate - though as mentioned above we would cautiously suggest this is extended to external infrastructure required for the operation of the automated vehicle, e.g. servers and to offences committed through hacking. This will very much depend on whether existing legislation would cover any such tampering offences. If such offences are not covered then there is a good argument to cover them. It is important that there are no loopholes and gaps that individuals with malicious intent could seek to exploit, and that the law acts as a real deterrent for such actions.

Consultation Question 50 (Chapter 15)

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?

Again, we would suggest the possibility of extension to external software e.g. at data centres or off-site servers. We agree that the appropriate mental element should be intent to interfere, but would urge consideration of negligence thresholds too. For example, there could be lesser penalties for innocent negligence than for knowing negligence.

Consultation Question 51 (Chapter 15)

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.

This seems like a sensible proposal as in this scenario the road user is not the expert, and can only rely on the manufacturer/ADSE's suggestion for works to be carried out, in particular where regulators may not yet have sufficient knowledge/understanding to create clear legal requirements for certain works. Although we believe that intent to interfere is the right test, there should be an element of that test in respect of the appreciation of the risk of those consequences. It is very possible, at least whilst the technology will be new, that individuals may not fully understand what tempering may result in, or simply not fully grasp that an act may constitute tempering. Therefore, we believe that there should be element of understanding attached to the test. Although the law has to act as a deterrent, it must also allow for the different levels of understanding that may exist in respect of AVs.

Consultation Question 52 (Chapter 16)

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?

As above, we recommend that considerations of innocent negligence and knowing negligence are built into the regime, and would suggest that the current drafting of the AEVA is not clear enough on the distinction between the two levels of culpability. If the main foreseeable disadvantage of making the amendment is that it may be superfluous, we believe the amendment should still be made as it will remove any room for interpretation which is preferable to uncertainty.

Nonetheless, the approach under the AEVA is a reasonable approach to take as until AVs are on the road, it is very difficult to understand and foresee exactly how the law will be applied and what points need to be addressed. Although we can see a danger of the law not being applied in a very uniform way at first, we do not believe that making the law more prescriptive at this stage will effectively deal with that issue. At first, judges are much better placed to make such judgments.

Consultation Question 53 (Chapter 16)

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

Do you agree?

We consider that something broadly equivalent to the Motor Insurers' Bureau's pool for victims of hit and run or uninsured drivers could be deployed in this area to compensate the victims of accidents caused by uninsured AVs. We understand that if a road user is involved in an accident with an uninsured vehicle and forced to claim on their own insurance, then the MIB will compensate the insurer for the costs of your claim – This could be extended to accidents caused by uninsured AVs, or alternatively a broadly similar regime could be rolled out for AVs.

Consultation Question 54 (Chapter 16)

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?

The EU has launched a formal evaluation of Directive 85/374/EEC to assess whether the product liability directive continues to be an adequate tool and continues to meet its objective in the light of new technological developments. We would suggest that the UK pays close attention to the findings of this assessment and consultation in order to further understand the state of product liability law in the UK, which is of course based on EU provisions.

Consultation Question 55 (Chapter 17)

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?

It is of course important that liability can be pinpointed in case of accidents and data storage is the best way to evidence this. It is inevitable that in practice, users will have to allow for data processing and recording if they are to use the ADS technology. However, only the necessary data should be collected and considerations should be made as to how long the data is stored for.

There may be obstacles to data collection in the first place, as appropriate consents will need to be obtained to collect/process/store such data. There may also be issues surrounding the transfer of that data if the any data centres are overseas. This is the case particularly for US-based ADSEs, where could be issues flowing from the recent Schrems II judgement as it may not be legally permissible to transfer that data to the US. Collaboration with the UNECE should help the government to avoid, or at least face head on, these challenges, and cooperate at an international level to resolve any barriers to data collection which could have a negative impact on safety assurance.

In order to comply with data protection regulations, it should be made very clear what data is being collected and for what purpose, and in particular who it could be shared with. It is inevitable that in practice, users will have to allow for data processing if they are to use this technology – for safety and accountability purposes any national system to approve an ADS should require these data to be collected, subject to safeguards. For example, only the necessary data should be collected and considerations should be made as to how long the data is stored for.

Consultation Question 56 (Chapter 17)

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?

One of the main reasons for data controllers to have that data is for the purposes of accident analysis. Initially, this is key in limiting the risks to the safety of road users, and improving technology to ensure minimisation of incidents occurring. Where an incident does occur, this data can and should then be used to assist the deciding of insurance claims fairly and accurately, within reason.

Consultation Question 57 (Chapter 17)

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?

It is clear that data should not be stored long term in order to comply with data protection obligations. Three years seems like a good starting point for these purposes, considering the variety of uses for which this data may be required, e.g. insurance, liability or safety. It is also reasonable to suggest that data storage duration be periodically reviewed and possibly extended in light of experience, as many of the proposed procedures and regulations set out in this paper are brand new and it remains to be seen how long these processes take.

Consultation Question 58 (Chapter 17)

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?

We would agree with this approach based on the high risk of hacking, cyber attacks and misappropriation of personal data as a result of these technologies. It is also of course key that manufacturers and developers comply with data processing laws and are able to demonstrate this at the earliest stage.

This extra burden on ADSEs is justified due to the fact that data is such a key feature of these systems. Where the regulator is not sure that they can sufficiently protect the end-users data when using technology, the systems should not be categorised nor approved for general use by private individuals. We would be very cautious in reducing the limitation period even after some time. Victims must not be put at a disadvantage simply because it would be expensive for ADSEs to store the data safely.