



Kennedys' response to Automated Vehicles: Consultation Paper 3  
- A regulatory framework for automated vehicles

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# About Kennedys

Kennedys is a global law firm with expertise in dispute resolution and advisory services. Founded in 1899, we have a rich history of delivering straightforward advice, even when the issues are complex.

With over 2000 people and 40 offices around the world, including eleven offices across the UK, we are a fresh-thinking firm and are not afraid to bring new ideas to the table beyond the traditional realm of legal services.

Our lawyers handle both contentious and non-contentious matters, and provide a range of specialist legal services, for many industry sectors including insurance and reinsurance, aviation, banking and finance, construction and engineering, healthcare, life sciences, marine, public sector, rail, real estate, retail, shipping and international trade, sport and leisure, transport and logistics and travel and tourism. But we have particular expertise in litigation and dispute resolution, especially in defending insurance and liability claims.

Our core principle is to help clients become less reliant on our lawyers, using us only when we add real value to an outcome, and we are doing this through the progressive development of client-focused technologies. We combine talent, specialist technology and commercial perspectives to create the best outcomes for every one of our clients.

Our niche focus on insurance and disputes permeates every part of our global network and allows us to always offer rich and diverse perspectives.

Our **Corporate and Public Affairs** team are experts in the political process and are skilled in identifying thought leadership opportunities on behalf of clients. They strive to offer market insights and intelligence around issues shaping today's corporate landscape. Proven results include published market research on driverless vehicles, which examined consumer acceptance of the technology and positioned us to successfully lobby Government to change the Automated and Electric Vehicles Bill. We care about helping our clients understand drivers of change and are committed to representing our clients' interests in policy-led changes.

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# Introduction

Kennedys shares the UK Government's desire to ensure that the UK is at the forefront of emerging automated vehicle technology - both with regard to the improved safety aspects that such technology can bring, as well as the commercial advantages to business and the UK economy.

We strongly believe that the Government needs to work centrally to further facilitate meetings and communication between all relevant stakeholders, including insurers and manufacturers. It is also vital that the Government fully understands the barriers to the innovation in order to overcome them and ensure the UK's place in the global race to realise the benefits. That includes gaining a deep understanding of consumer acceptance, infrastructure and the applicable capital costs - in addition to regulatory changes and the technology itself.

The views of a large cross-section of society in the UK do need to be monitored and there is an education piece for the public which again must be government-led, but with the support of the various stakeholders. Failure to do so risks the very real possibility that the public will take a negative view of autonomous vehicle technology, and inhibit rollout and public uptake and trust.

Equally so, if the public perceive that either this emergent technology is not as capable or safe as a human driver, particularly in emergency situations, or that standards or expectations of this technology are seemingly lower than that for a human driver, there is again the possibility that a negative view will be taken which will then be hard to shake.

It is necessary to have the right regulatory framework that can evolve and adapt as the technology develops. It is vital that regulation prioritises the safety of vehicle users who may be affected by a vehicle's use. It is also vital that regulation champions the key pillar with regard to data-protection: pro-growth and data-driven innovation go hand in hand.

Following Brexit, the extent to which the UK government diverges from European Union legislation and regulation remains to be seen. The recent announcement that the Government will not be following the European Court of Justice decision in *Vnuk v Zavarovalnica Triglav dd* [2016] - and so will not be extending compulsory motor insurance requirements to the use of a wider range of vehicles - perhaps indicates that we may see other examples of divergence.

Given the depth of expertise available in the UK's existing regulators (which are perhaps best described as separately accountable), and alongside the large number of autonomous vehicle pilot schemes in the UK, there is an opportunity for the UK to have its own internal regulator.

## Kennedys' research: consumer acceptance

Following active engagement with officials (government and peers), we have authored the first major piece of research into public attitudes on driverless vehicles - *Driverless vehicles: Innovation to revolutionise the way we transport modern societies*.

The insights gained confirm that, alongside the regulatory review, the views of a large cross-section of society in the UK must be monitored. Government-led education of the public is required to avoid the very real possibility that the public will take a negative view of autonomous vehicle technology, and thereby inhibit rollout and public uptake and trust.

As one of the largest studies on attitudes towards autonomous vehicles to date, our new report (published in July 2019) explores public support across the globe and insights from key industry leaders.

Our latest insights report, '[Autonomous vehicles - The future of transport: A brave new world?](#)', builds on the findings of our [previous report](#) in 2017 and covers the wider transport industry (road, rail, aviation and shipping), as well as the insurance and logistics industries. It contains both consumer and business sentiment towards autonomous vehicles from six survey markets: Australia, China, Hong Kong, Singapore, UK and US.

The world is on the cusp of a transport revolution: one in which machines will increasingly take control from humans. That shift raises fundamental concerns around public safety and where the liability rests when accidents occur. It also means a major shift in the amount of data that is collected by vehicles, and how that data is stored and used. Faced with these challenges, the views of end-users will be integral to deciding the scale and speed at which markets choose to adopt autonomous vehicle technology.

# Response to questions

## Consultation Question 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?**

- (1) We do not see how this proposition can be agreed unconditionally. The proposition is too binary.**

So long as there is handover and handback, the user in charge (UIC) must surely need to monitor, if not control, the vehicle at some level to be aware of any transition demand communication from the vehicle or a catastrophic failure of the autonomous vehicle (AV).

Furthermore, if there are some clearly defined fallback 'obvious circumstances' when the UIC must respond and take control in the absence of a transition demand, the UIC must also therefore be sensorily aware enough and positioned in the vehicle sufficiently to respond to these circumstances as well.

In our response to the UK Government call for evidence on automated lane keeping system technology (ALKS) we expressed concern that the definitions on 'monitoring and control' and 'driving itself' were both re-defined too narrowly, following on from the baseline of the definitions within

the Automated and Electric Vehicles Act 2018. This same concern applies here and, of course, in the much wider scope of autonomous driving (on various roads and driving conditions) envisaged in this consultation. There is a real danger in defining ‘driving itself’ and ‘safely’ too narrowly or being too circumspect or vague in defining the level of ‘monitoring and control’ required of a UIC when a vehicle is in full AV mode.

Whilst we can see the need for transition demands to be sent when a vehicle is moving on or off certain road types (for example, is soon to exit a motorway and move on to a B-road), there is the sense within this consultation that the AV may be sending transition demands back to the UIC in perhaps too wide a set of emergency circumstances. We believe that the correct approach and the first rule would be to start with the ambition that an AV can and will respond to all emergency situations in at least as safe a manner as a human driver, if not better. We believe the consequential rule should then be that the exceptions to the first rule should be extremely minimal.

To adopt a different approach seems to be somewhat limiting and, as well as risking public confidence in this emergent technology, it also risks UK R&D firms aiming low (because of the bar set within the regulations) rather than high, and from near the outset.

Additionally, it is difficult to see how the court of public opinion will back the notion of AVs being safe enough for the UIC to even reduce any level of monitoring and control if the messaging is also that there are a wide range of circumstances when the AV will then send a transition demand, especially in emergency situations.

- (2) (a) Yes, agreed.
  - (b) Yes, agreed.
  - (c) Yes, agreed - but it may be highly artificial to provide one definition of sufficient time in this context. For example, sufficient time when travelling in a vehicle on a motorway at 70mph is likely to be far lower than sufficient time when reversing slowing from a driveway or proceeding along a country B-road at 30mph even.
- (3) Agreed, subject to there being a clear definition and concept of what ‘safe enough’ is. We are concerned about the various definitions of the minimum risk manoeuvre, failure mitigation strategy, or equivalent, that the vehicle falls back in to in the absence of the UIC taking back control following 10 seconds after a transition demand.

We too are surprised that the ALKS consultation cited a tyre blowout as a situation where a transition demand may be made (and unanswered). We support the observation that in this, as with most or all other emergency situations, the ADS should surely be better suited to handling the situation and bringing the vehicle to a stop safely.

We refer also to our responses to questions 4, 5 and 29.

## **Consultation Question 2**

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

We agree that self-driving features should be designed to ensure that they can be used by people with hearing loss or, for that matter, the full range of other disabilities in which, currently, people are able to use current unmodified motor vehicles.

What is also of particular importance for all AVs /self-driving features is that the user interface and dashboard iconography, colours and symbols and other sensory and haptic feedback to the UIC are truly common, familiar and consistent between different models, manufacturers and ADSE.

## **Consultation Question 3**

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

**Do you agree?**

We agree. However, we see no reason why the UK should not aim reasonably high when setting minimum safety standards. We consider that the minimum safety standards should be such as to enable the Secretary of State to provide reassurance that, overall, and when in autonomous mode, AVs drive at least as safely as a reasonably competent and careful human driver and, on many occasions, adopt a safer overall standard.

To do anything less than this is to risk public confidence in this emergent technology and to risk buy in from the wider set of stakeholders.



We are troubled by the concept of 'positive risk balance' and can readily see many examples of AV driving behaviour which would be currently considered to be, potentially, negligent or criminally culpable, if adopted by a human driver, but which is advanced as reasonable or minimum risk in the context now of AV and ALKS.

One particularly indicative example would be the action of an AV in coming to a stop in lane. In many circumstances, this driving behaviour would be considered as negligent driving (giving rise to an unnecessary hazard on the road to other road users) in a civil claim and, indeed, could also be viewed as careless driving or similar in a criminal court and giving rise to criminal culpability.

Another example, would be an AV driving away from the scene of an accident because it did not register an impact whereas, perhaps, a human driver would have - but has placed too much reliance then on the vehicle in autonomous mode. A human driver might be charged with a criminal offence in similar circumstances.

Again, seemingly setting lower safety standards, a lower bar, for AV than human drivers strikes us as a strategy fraught with potentially negative outcomes.

With regard to the specialist regulator, there are a number of potential pre-existing candidates. The Driver and Vehicle Standards Agency (DVSA) and/or the Vehicle and Operator Services Agency (VOSA) may have the requisite expertise, particularly if guided by the European New Car Assessment Programme (Euro NCAP), for example. Traffic Commissioners also have transferable skills and experience.

#### **Consultation Question 4**

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

- (a) as safe as a competent and careful human driver;**
- (b) as safe as a human driver who does not cause a fault accident;**
- (c) overall, safer than the average human driver.**

Please see our response to Question 3 above. Whilst any detailed safety standards cannot allow for all eventualities and circumstances on the road, we believe those same safety standards should focus more on (a) above than (c) above.

In our response to the government call for evidence on ALKS we expressed our concerns over the relatively narrow definitions for monitoring and control and the apparent requirements set for a vehicle to be considered to be 'driving itself' even in heavy slow moving traffic on a motorway. In some ways, our concerns there do seem to an extent to be realised in the test on 'driving itself' in the wider sense in this consultation. A vehicle can only be driving itself safely if the vehicle is capable of taking in the same information and sensory input as a human, or a sufficient equivalent, and making the same or better decisions and actions in terms of driving behaviour in the vast majority of circumstances.

When coming to consider which vehicle's driving behaviour can be considered negligent and causative of loss or injury, a civil judge (with a three hour or less trial hearing or, perhaps, an online equivalent in adjudication) is going to have to adopt a consideration of what a competent and careful human driver would have done. In doing so, with reference to the Highway Code, and existing caselaw, when considering the various road users involved including both human-driven vehicles and AVs. That same judge is going to have to look at the specific driving behaviours of all the vehicles at the material time and, in that context, it is hard to see how such a judge is going to weigh-in and consider statistical data under (c) when reaching a view.

The same will surely be true of a criminal law judge and, perhaps, jury, when considering criminal culpability in the same context.

To look at this question from a different angle, it seems inevitable that public opinion would be severe and negative if a road accident causes injury, loss and/or death but the safety standards then applied to the AV are lower than those that would be applied to the same actions/behaviour by a human driver - and those actions/behaviours have led to any extent to the same injury, loss or death.

One of the most significant perceived benefits of the introduction of AVs is the reduction of road traffic collisions. Surely therefore the appropriate standard should be an elevated standard, and safer than the average human. This would include better reaction times, the ability to assess the surrounding environment and potential hazards and so on.

## **Consultation Question 5**

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

### **Monitoring and control**

With reference to our response to question 4 above, where a vehicle has handover and handback from AV mode, the UIC will need to maintain a certain level of monitoring and control, or at least attention, and will need to remain situated to the control device of the vehicle, usually the steering wheel. To suggest otherwise just seems non-sensical. One of the methods of ensuring AVs can be made as safe as reasonably practicable is to define the level of monitoring, awareness and positioning of the UIC in the vehicle in AV mode as accurately and concisely as possible and to, even then, prescribe certain activities or actions on the part of the UIC. For instance, an obvious example of a prescribed activity would be sleep. To fail to be clear and prescriptive here would invite poor and potentially dangerous behaviours on the part of the UIC.

### **An objective safety assurance system and standards**

Noting the heavy level of proprietary technology, a safety assurance system and standards should be objective. Original equipment manufacturers (OEMs), manufacturers and software houses should work to comply with the objective standards to then receive accreditation for their systems/software.

### **Consistency in iconography, symbols and communication systems**

Iconography, symbols and communication systems on the heads-up display (HUD) or dashboard of AVs must be consistent; vehicle to vehicle. This requires the imposition of objective protocols and standards in addition to mandatory training (of sufficient length) when users first purchase (or use) a new AV. Training and skill checks for use of AVs should also be introduced to the core driving test for AVs which do require a UIC.

With different levels of automation likely to be available in vehicles (and to some extent already available in the form of different types of advanced driver assistance systems (ADAS)), we consider educating and informing the 'driver' or UIC on the proper use of automated systems and their abilities and also limitations, will be crucial.

By way of an example, and in the context of ALKS technology, in our response to the UK Government's

recent call for evidence, we highlighted the importance of driver education, as follows:

*Whilst Government can and should provide generic materials on proper use of ALKS systems and their abilities and also limitations, it seems unrealistic to suggest some additional element to driver's license testing, particularly as most drivers using ALKS will already hold full driving licenses at the time of any rollout.*

*Car manuals can be ignored or simply ticked as read if presented conditionally in electronic format. Manufacturers should provide car manuals and key-facts documents on ALKS abilities/limitations and summaries of how to lawfully use ALKS on UK roads. However, we do not believe even this and a necessary Government information campaign will be sufficient in themselves to educate and inform potential users of ALKS.*

*We believe it is critical to the successful rollout of any ALKS system and the education of drivers using ALKS that steps are taken as well by manufacturers at point of sale or hire to ensure users are fully educated, informed and aware.*

*This does however, highlight an important and significant gap, where vehicles with ALKS technology are subsequently sold privately, thereby removing that vital opportunity to educate on the operation and safe use of the system.*

*Such vehicles should in theory be tracked via Driver and Vehicle Licensing Agency (DVLA)/ Motor Insurance Database (MID) database(s). It would be sufficient for a change in ownership to trigger a re-set for in-car interactive training and confirmations (see below). This may be most likely achievable through the software maintained by the motor manufacturer or OEM who, in any event, have to push up-to-date and critical software updates to the vehicle in question.*

### ***Role of the manufacturer in providing education and information***

*Specific training and demonstration at the point of sale of a vehicle with this technology is vital. As a starting point, such training and information should be provided at point of sale or point of hire and by the manufacturer (car salesroom) or hire company. However, subject to the car industry providing and maintaining a consistent and universal database, and on the basis that the ALKS systems are similar enough (see immediately below) in operation and user-interface, it may be in the future that users can point to a record that they are already informed and educated through tutorials on the latest iteration of ALKS technology.*

*In terms of the training, education and information, we consider, in the first instance, it is also essential that the vehicle user interface and operation of ALKS are very similar or, preferably, identical (in terms of iconography, haptic feedback, imagery, feedback, communication to and from the driver by the car). This must be from one make and model of ALKS enabled vehicle to the next and from one manufacturer to the next. At the risk of labouring the point, it seems obvious that, if different user interface and communications/operations systems are alien from one such vehicle to another, a user familiar with say manufacturer A's ALKS enabled vehicle, runs the risk of confusion and driver error if then using manufacturer B's ALKS enabled vehicle. This may be the case even with further training - which may only build on the confusion.*

*Noting the very high level of infotainment capability in an ALKS enabled vehicle, it seems to us that it should be possible for potential purchasers or hirers to run through a series of 'tutorial' sessions before being able to access or engage ALKS mode when driving. These tutorials might include one or more in-seat and interactive tutorials when the vehicle is stationary and perhaps one semi-interactive 'tutorial' drive on a major A-road perhaps also simulating ALKS mode. The latter enabling the driver to get a more hands-on feel for how ALKS will operate in practice.*

*This is, arguably, little different to the time and commitment manufacturers or sometimes hire companies put towards test-drives currently. It also strikes us as far more effective as a mode of educating and informing than either a hardcopy or electronic manual.*

*There is a need in all of this to strike a reasonable balance between the accessibility and saleability of these vehicles - i.e. to not make the sale or hire of them too onerous or complex - and the need to ensure users of the vehicles are adequately informed and prepared before engaging ALKS mode on the open road.*

*It is also important to recognise that a failure to provide adequate warnings is considered a product defect in strict product liability laws in England and Wales. A defect will exist if the ALKS vehicle was not as safe as "persons generally are entitled to expect" (see Section 3 (1) Consumer Protection Act 1987). It is also therefore vital that manufacturers and distributors seek from the outset to manage their drivers' reasonable expectations of the ALKS vehicle and its technology and provide adequate warnings and instructions on how to use the ALKS safely.*

### **Role of Government and its agencies in providing education and information**

*At least in any potential phased rollout, and in the limited sense of ALKS only, we cannot foresee*

*that use of ALKS would form part of the driving test. However, we do foresee use of tier 4 and tier 5 autonomous vehicles under the AEVA becoming part and parcel of the driving license test as such vehicles become more ubiquitous.*

*In the meantime and notwithstanding a Government programme of education to the public on proper use of, abilities and limitations of ALKS-engaged vehicles, we believe the Government needs to play another pivotal role. We consider that the Government must also ensure that manufacturers and hirers of ALKS-capable vehicles take a comprehensive and, above all else, consistent approach to educating and informing potential users at point of sale or point of hire (see above).*

### **Consultation Question 6**

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

The public sector equality duty came into force in 2011 and requires all public authorities to have regard to the objectives set out in section 149 Equality Act 2010. The simplest way for AV regulators to fulfil the duty might be for them to review and adopt or adapt the policies and practices of other similar regulators, particularly those linked to the Department for Transport.

### **Consultation Question 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?**

These proposals appear sensible. In the rail industry a not for profit company owned by industry stakeholders - Rail Safety and Standards Board (RSSB) has responsibility for setting detailed safety standards, including in relation to rolling stock. The RSSB is separate from the rail health and safety

regulator, the Office of Rail and Road (ORR). In the context of workplace health and safety, while industry bodies and the British Standards Institution (BSI) and others are often active in setting safety standards and providing guidance, the Health and Safety Executive play a dual role of developing detailed safety guidance and approved codes of practice, as well as being the primary health and safety regulator.

### **Consultation Question 8**

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

This is outside our knowledge and areas of expertise.

### **Consultation Question 9**

**We provisionally propose that:**

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

**Do you agree?**

- (1) We agree.
- (2) We agree.

### **Consultation Question 10**

**We provisionally propose that:**

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

**Do you agree?**

This is outside our knowledge and areas of expertise.

### **Consultation Question 11**

**We provisionally propose that:**

- (1) an ADS approval scheme should be established through regulation under the Road Traffic Act 1988, without further legislative reform;**
- (2) an ADS should be defined as a combination of software, hardware and sensors, which can be installed in a “type” of vehicle;**
- (3) when an ADS is approved, the approval should be accompanied by specifications for:
  - (a) the type of vehicle in which it can be installed; and**
  - (b) how the ADS is installed within the vehicle;****
- (4) where an ADS is installed in a pre-registered vehicle, an example vehicle should be submitted to the regulator for approval of the installation.**

**Do you agree?**

This is outside our knowledge and areas of expertise.

### **Consultation Question 12**

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

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

This is outside our knowledge and areas of expertise.

### **Consultation Question 13**

**We provisionally propose that:**



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

**Do you agree?**

- (1) We agree.**
- (2) We agree.**
- (3) Yes but perhaps identifying vehicles too which are ADS capable but not ADS enabled.**
- (4) We agree.**

In general then to sub-paragraphs 4, we agree this is appropriate to ensure a) compliance to minimum and appropriate standards and b) proper regulation is possible. It is essential an ADSE takes responsibility for their system and that they are involved in developing and accessing its safety. This will help to ensure that ADSEs are held accountable for issues then identified. This will also promote consistency and encourage a safety-first approach.

#### **Consultation Question 14**

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

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

**(c) criteria for doing so.**

**Do you agree?**

We agree, again this will ensure compliance, consistency and set minimum standards.

### **Consultation Question 15**

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

This is outside our knowledge and areas of expertise.

### **Consultation Question 16**

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

We agree this is sensible and an approach that could be adopted to other classes of AV as well. We wonder whether any such limited deployment might occur on segregated lanes on the motorway or at least be limited (with exceptions) to designated lanes, as part of a phased rollout.

### **Consultation Question 17**

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

**Do you agree?**

We agree.

### **Consultation Question 18**

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

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

**Do you agree?**

We have not provided a response to this question.

### **Consultation Question 19**

**We welcome views on the following issues:**

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

(2) It seems a sensible approach for the new, enhanced legislative scheme to deal with all aspects related to assuring AVs when they are in-use on the roads and cyber security falls into that category. The scheme's approach to cyber security in connection with AVs could sit alongside and complement the existing UK GDPR landscape.

### **Consultation Question 20**

**Should the authority administering the scheme to assure safety while automated vehicles are in use be kept separate from type approval authorities (as is already the case)?**

**Alternatively, should both functions be combined in a single body?**

Any risks of conflict of interests and friction points between separate authorities should be balanced against the anticipated efficiencies and other benefits of a combined authority. Different industries approach this in different ways, for example rail and workplace safety (see question 7 above).

### **Consultation Question 21**

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

Perhaps regular stakeholder meetings facilitated by the Centre for Connected and Autonomous Vehicles or Department for Transport, or even hosted by stakeholders themselves.

### **Consultation Question 22**

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

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

**Do you agree?**

We agree. Monitoring will be required allowing these issues to be raised and addressed with the relevant ADSE.

### **Consultation Question 23**

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

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

## **Do you agree?**

A progressive and proportionate approach might mirror the mix of civil and criminal sanctions available to the Environment Agency (EA), as per the Regulatory Enforcement and Sanctions Act 2008. It will be important to provide a range of sanctions so that on the one hand minor or technical breaches are not automatically criminalised, but on the other there are suitably significant sanctions available for more serious cases. As such, fines could sensibly follow the fixed and variable monetary penalty model available to the EA, redress orders could be a voluntary option similar to enforcement undertakings again in the environmental sphere, and criminal prosecution could be the ultimate sanction. As ever, each sanction should come with its own proportionate and independent challenge or appeal mechanism.

## **Consultation Question 24**

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

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

## **Do you agree?**

Please see our response to question 23 above.

## **Consultation Question 25**

**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?**

We refer to our response to the preliminary consultation paper on automated vehicles in which we stated as follows:

*We believe there is merit in having a central investigative branch of the police charting causes of serious road traffic accidents involving automated vehicles and feeding their findings back regularly to government, the Department for Transport, to manufacturers and OEMs through their trade body and to motor insurers through the Association of British Insurers and Thatcham Research.*

## **Consultation Question 26**

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

### **Do you agree?**

We agree. We also refer to our response to the preliminary consultation in which we stated:

*We believe very strongly that the Government need to work centrally to further facilitate meetings and communication between various stakeholders - in particular insurers on the one hand and OEMs and manufacturers on the other. This has been happening to some extent (and is welcomed) but needs to be escalated to prevent occlusion of useful information, and to improve underwriting and provision of insurance for autonomous vehicles.*

*Stakeholders need to quickly establish objective data standards (for accessing internal and external vehicle systems, EDR, ADS, sensors) and an objective standard for dashboards and HUDs (universal symbols and iconography etc).*

*Input into the process by industry stakeholders is vital and must be ongoing. We, therefore, urge the Government to create an industry-wide group that would advise ministers and civil servants on how the technology is developing to inform their thinking on how regulation needs to change with it. One of the main objectives of such a group should be to reach a consensus on what type of vehicles are likely to arrive on the UK market over, say, the next 10 years. This would greatly assist the government with regulatory planning.*

*The views of a large cross-section of society in the UK do need to be monitored and there is an education piece for the public which again must be government-led, but with the support of the various stakeholders. Failure to do so risks the very real possibility that the public will take a negative view of autonomous vehicle technology, and inhibit rollout and public uptake and trust.*

## **Consultation Question 27**

**We welcome views on:**

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

In relation to part (2) of this question we would suggest such a forum should include interested stakeholders and representatives from drivers' and other road users' organisations, charities and interest groups and road traffic experts.

The same Forum should include representatives from the motor manufacturers and OEMs developing ADSE.

Under the Automated and Electric Vehicles Act 2018 and otherwise, motor insurers will have a significant role in providing cover for road accidents involving AVs and so it makes sense for the forum to contain representatives from the Association of British Insurers (ABI) and the British Insurance Brokers' Association (BIBA).

Equally so, representatives should be present from local authorities, the Highways Agency and also road haulage and fleet logistics trade organisations too.

The judiciary (both civil and criminal) are often called upon as the ultimate arbiters in determining which vehicles driving behaviour fell below a minimum standard AND whether that was causative of the accident, loss, injury and/or death; and which party or parties (and in the civil litigation context, which insurers of which vehicles be they manual or AV) should bear what proportion of fault or, in the context of criminal trials, criminal culpability.

It therefore does seem to make sense that any such forum should include representatives of the civil and criminal judiciary and lawyers with experience of dealing with trials arising from road accidents.

## **Consultation Question 28**

**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?**

(1) Agreed - so long as an individual in a position to operate the controls of a vehicle when ADS is engaged and in the same vehicle is in the driver's seat of the vehicle at all times when the vehicle is in motion.

(2) Agreed - subject to retaining the concept that the UIC can still potentially be found to be civilly negligent and/or criminally culpable in circumstances where:

- a. The UIC has unreasonably failed to respond to the transition demand and take back control of the vehicle within the prescribed or otherwise a reasonable timeframe;
- b. The UIC has unreasonably failed to take back control of the vehicle and/or move the vehicle on after a prescribed or otherwise a reasonable timeframe;
- c. The UIC has unreasonably failed to take back control of the vehicle and/or move the vehicle on after there has been a catastrophic failure of the ADS; or
- d. The UIC has wrongly or unlawfully hacked or modified in-car ADS software and this has led to some loss, collision or malfunction of the ADS.

We also refer to our response to the preliminary consultation in which we stated:

*There may be circumstances where the user-in-charge will be called upon to drive. It is therefore essential that they must be qualified and fit to drive. When a fully automated system is engaged, the user-in-charge cannot be accountable from a criminal and civil perspective: they are not in charge of the vehicle. Only at the point when the user-in-charge takes over the controls (the handover), should they become liable from both a criminal and civil perspective. This further highlights why it is imperative that motor manufacturers must give court experts and insurers ready and unfettered access to event data recorder (EDR) and sensor data from vehicles in civil and criminal litigation involving autonomous vehicles.*



## Consultation Question 29

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

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

Do you agree?

- (1) Agreed. However, we are deeply concerned about the imposition of any arbitrary time given for the UIC to respond to a transition demand to be applied to all road environments, all speeds and all circumstances. If a UIC is given say a set 10 seconds to respond to a transition demand on a motorway, by the time the UIC responds, the ADS vehicle may have collided with several vehicles and travelled along several hundred yards. Conversely, if a UIC is given the same arbitrary 10 seconds to respond to a transition demand on a country A-road, the UIC may just be able to take back control before collision, serious injury or death ensue.

One arbitrary time limit to respond to all transition demands is unworkable and wholly unrealistic. We believe the starting point should be that the vehicle in ADS mode should be able to respond as well or far better to emergency situations than the UIC and should therefore not trigger a transition demand in such situations or perhaps only trigger a transition demand when all or most such situations have been avoided or reduced in severity.

To suggest otherwise is to effectively concede that a human (after a transition demand and 10 plus second delay before responding) is better able to deal with the emergency situation than the ADS. This seems to us fairly self-defeating of the technology and its wider purpose, counter-intuitive, and potentially caustic to the court of public opinion. If the starting point is not to avoid all or most transition demands triggered by emergency situations on the road, we wonder whether the bar is being set too low for the United Kingdom's research and development sector.

- (2) Agreed. We would add that in such circumstances, the UIC then considered a driver may also be deemed to have driven or controlled the vehicle in a negligent manner which might then support a civil claim in negligence against the UIC.

We can see the need for a UIC to bear criminal culpability if they wilfully or negligently fail to respond to a transition demand and we can also see that the criminal culpability may then be equivalent to a similar situation in which a human driver created the same poor and hazardous overall driving behaviour.

However, we are troubled by the distinction between transition demand and transition information - the distinction will need to be set out very clearly indeed. Again, we believe the arbitrary 10 seconds to respond to a transition demand is unworkable - 10 seconds on a motorway could constitute the difference between life and multiple serious injuries and/or deaths when compared to say 10 seconds on a straight single-lane B-road. We consider that 10 seconds is not always the fair amount of time to regain situational awareness - it depends heavily on the situation, the environment, the nature of the road, the speed of the vehicle and other factors.

It seems to us rather unexpected that on the one hand it is contemplated that vehicles in AV mode will be capable of navigating and driving safely on a wider variety of roads and driving conditions but on the other hand, perhaps, the thinking is that the same vehicle in AV mode is incapable of handling most if not all emergency situations and mitigating incidents by taking the vehicle to true 'safe harbour' rather than say simply coming to a stop in lane or similar.

Instead, it is contemplated that when the vehicle in AV mode adopts a failure mitigation strategy that then amounts to the equivalent of a criminally culpable (or perhaps negligent too) driving behaviour - that the UIC could then be prosecuted.

We can see that a wilful and/or negligent failure to take back control within a reasonable time after a transition demand could and should, applying some objective standard, give rise to criminal culpability (and well-made arguments on civil negligence). However, it also seems to us very regrettable to place criminal culpability (or civil liability) on a UIC where an AV failure mitigation strategy is inadequate when compared to the strategy a human driver would adopt or inappropriate or in any event puts other road users at risk when a reasonable alternative (for example decelerating and pulling over in to safe harbour on the side of the road at the nearest safe point) would not have created a hazard or accident on the road.

We consider that the approach must be that the AV should adopt a 'failure mitigation strategy' which is at least as safe and sensible as the approach say of another human driver when placed in the same situation.

We refer also to our responses to questions 1, 4, and 5 above.

### **Consultation Question 30**

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

If appropriately supervised, we see no reason why a provisional licence holder should not be permitted to act as a UIC much like our current system. It seems this must be permitted to ensure new drivers have appropriate exposure to these vehicles.

### **Consultation Question 31**

**We provisionally propose that legislation should create new offences of:**

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

**Do you agree?**

We agree that there will need to be an appropriate legislative framework covering these offences. Irrespective of the nature of the AV and the extent to which it can 'self-drive', a UIC must not be impaired/unfit and appropriate offences must be drafted.

### **Consultation Question 32**

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

Yes we agree. Again, for obvious safety reasons an appropriate UIC is required for AVs. Being carried without one must be deemed a criminal offence and dealt with accordingly.

### Consultation Question 33

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

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

We are of the view that the appropriate test should be ‘knew or ought to have known’ as this is more in line with most other driving offences.

### Consultation Question 34

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

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

**Do you agree? If not, we welcome views on alternative legal tests.**

Yes, if the UIC assumes control of a vehicle then they should be considered the driver. It seems the only appropriate test in circumstances of this nature must be in line with the current standard applied to drivers, namely they must meet the standard of a careful and competent driver.

We also refer to our response to the preliminary consultation in which we stated:

*If a vehicle is in “fully automated” mode it would be wrong to impose a legal duty on a user-in-charge to act or take steps to act in an emergency situation. This will undermine public confidence in these vehicles.*

*However, if it were considered appropriate to make the user-in-charge subject to certain criminal offences, the current road traffic legislation could be applied (subject to some modification). For example, if a user-in-charge fails to take reasonable steps to correct a malfunctioning vehicle, the legal question would be “what would a careful and competent driver” have done in the prevailing circumstances. Consideration would be given as to the time available to react, whether there were warning signs ignored by the driver, or system alerts that were ignored. In a case where the user-in-charge had limited time and no warning, it is likely any court/jury would have a great deal of sympathy for the user-in-charge.*

*In semi-automated vehicles, the driver would be expected to monitor the driving task and should accordingly continue to be subject to specific criminal offences arising from this task.*

### **Consultation Question 35**

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

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

**Do you agree?**

Yes, we agree with all these proposals. They are in line with current legislation and should continue.

With regard to (4) and (5) above we also refer to our response to the preliminary consultation in which we stated:

*The vehicle should transfer data to a server whereby the information can then be supplied to the police and other relevant bodies.*

*If there is an accompanying parent or guardian, they would be responsible in the first instance. If the child was travelling alone, a system should be considered whereby the vehicle will not start until it has detected that the passenger is wearing their seatbelt. If this does not work for any reason, the ADSE would then be responsible.*

### **Consultation Question 36**

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

**Do you agree?**

We have not provided a response to this question.

### Consultation Question 37

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”.

(1) Agreed - but very clearly ONLY when:

(i) remote monitoring systems are tenable, live and adequate; AND

(ii) the other ADS systems in the vehicle can override the remote user to avoid collisions and other hazards; AND ONLY

(iii) when the ADS systems will otherwise ensure that the vehicle drives safely in the sense of driving to the same standard as a reasonable careful and competent human driver.

(2) Agreed.

(3) We can see that such an amendment will become necessary when such technology becomes tenable - but the starting point should be that all such vehicles are driving in full automated mode, ADS, in any event. The person monitoring may then be able to perform some remote operation. However, see our response to (1) above. All such vehicles should be capable of safely remaining in full automated mode or perhaps moving after some time to a safe position even if the monitoring individual has gone away, lost remote connection or similar.

## Consultation Question 38

We provisionally propose that:

- (1) the regulation of self-driving vehicles should distinguish between an Automated Driving System Entity (which vouches for the design of the system) and an operator (responsible for the operation of individual vehicles);
- (2) all vehicles authorised for use on roads or other public places with no user-in-charge should either:
  - (a) be operated by a licensed operator; or
  - (b) be covered by a contract with a licensed operator for supervision and maintenance services;
- (3) it should be a criminal offence to use a NUIC vehicle on a road or other public place unless it is operated by a licensed operator or is covered by a contract with a licensed operator for supervision and maintenance services.

Do you agree?

We refer to our response to the second consultation paper in which we stated (in the context of whether a HARPS operator licence should be required by any business which carries passengers for hire or reward; using highly automated vehicles; on a road; without a human driver or user-in-charge in the vehicle (or in line of sight of the vehicle)) as follows:

*A HARPS operator licence should be required. It is essential that there is a single national and unified system (subject to limited and clearly defined regional differences for say Scotland, Northern Ireland referred to above) imposing and regulating standards on businesses. It must cover maintenance, remote supervision and safeguarding. Without such a system, it is submitted that breaches may occur and will not be subject to proper tracking and sanction. As a result safety could be compromised.*

*We would go further and suggest the operator licensing ought not to be restricted just to use of HARPS on the road. For example, airport terminal to stand transfer buses would clearly benefit from automation, but the potential for injury and damage is significant.*

*We query whether the definition “carries passengers for hire or reward” might create some grey areas and may need further explanation/clarification - for example, if the HARPS is operated on private land would it need a licence?*

*Confining the HARPS operator licence to carrying passengers for hire or reward will cover a wide variety of business models (including peer to peer lending for example), and as set out in the Consultation Paper, is an established test with the advantage of familiarity and certainty.*

*A HARPS operator licence should be required due to the fact that operators of such vehicles will assume a more central role without a person in/near the vehicle. Certainty will be afforded by virtue of the fact that licences will be required for any model operating without a human driver/user-in-charge at any stage of the process.*

*From a product liability perspective the regulation of self-driving vehicles should definitely 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). This will allow clarity for the ADSE and the operator to know who is responsible for what. It will also assist with allocating ongoing responsibilities by the operator in the day to day use and maintenance of the vehicles.*

### **Consultation Question 39**

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

Safety case regimes are tried and tested in the UK. For example, in the rail industry, 1994 brought the introduction of the Safety Case Regulations which required all railway operators (trains, stations and infrastructure) to prepare a safety case and have it reviewed and accepted by the regulator. This was a document designed to demonstrate that they had the resources, capability and commitment to ensure that all relevant safety practices were followed to minimise risk to passengers and railway staff. These requirements have since been subject to update.

We also refer to our response to the second consultation paper (in the context of whether applicants for a HARPS operator licence should show that they are of good repute; have appropriate financial standing; have suitable premises, including a stable establishment in Great Britain; and have a suitable transport manager to oversee operations), we stated as follows:

*The current system which governs PSV licences is complex and has evolved in a piecemeal fashion over many years. It is likely to be difficult to establish such a system for HARPS, given the infancy of HARPS vehicles. If rigidly applied, it could be too onerous to obtain a HARPS licence. Flexibility is*



*needed. Certainly, it is submitted that applicants must submit a strong safety case and demonstrate competence. The requirements will not and cannot necessarily resemble that required in a PSV context but there still needs to be a very strong focus on passenger safety.*

*HARPS operators need to be able to demonstrate that they have consumers' interests at heart and have the requisite knowledge and financial capability to establish and maintain HARPS vehicles and/or software to ensure that services remain safe and fit for purpose. As suggested in our other responses, a similar regime to that of the Financial Conduct Authority's Senior Manager and Certification Regime could be of benefit, particularly with regard to transport managers. Requiring transport managers to evidence their understanding of their role and responsibilities will provide further transparency and ensure senior members of staff remain accountable.*

#### **Consultation Question 40**

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

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

**Do you agree?**

Yes, these obligations on a driver/owner are correct and essential.

We also refer to our response to the second consultation (in the context of whether HARPS operators should be under a legal obligation to ensure road worthiness; and demonstrate adequate facilities or arrangements for maintaining vehicles and operating systems in a fit and serviceable condition). We stated as follows:

*We strongly agree. Safety is paramount, as is the need to keep all HARPS fully road worthy and technologically up to date at all times. This move towards upholding the most stringent safety standards should be supported and supplemented by industry guidance as is being suggested in the Consultation Paper.*

*New technology means new challenges, so operators will need to retain responsibility for their vehicles and systems. However, this legal obligation should be supplemented with guidance in recognition of the challenges involved in maintaining autonomous vehicles and their software, to enable operators to learn from experience and share best practice.*

*The Network and Information Systems Regulations 2018 (NIS) - An added layer of risk to HARPS.*

*In addition to the Data Protection Act / the General Data Protection Regulations (GDPR), it appears very likely that any HARPS providers will be subject to the guidelines set out in NIS. The basic principle of NIS is that it binds “operators of essential services” to regulators (competent authorities), and gives them notification obligations to these regulators. The purpose of this is to establish a common level of security for network and information systems that play a vital role in the economy.*

*It is foreseeable that the Department for Transport would be the competent authority for HARPS and there would be a range of sector specific technical guidance that would apply to HARPS operators.*

*In addition to technical guidance, NIS would put an obligation on HARPS providers to take appropriate measures to protect the security of data and information systems, and to take steps to minimise risks and maintain appropriate security. They would also need to notify national regulators of security incidents within 72 hours, and HARPS could be fined up to £17m in the most serious cases. This is in addition to any fines and penalties which could be implemented as a result of a breach of GDPR.*

### ***Criminal regulatory aspects***

*Given the potential harm that could be suffered by passengers if HARPS vehicles became compromised, it is likely that criminal regulation will need to evolve to create new offences to catch this type of danger/ disruption.*

*If route data and tracking data is compromised this could have serious implications on the safety and security of the UK’s infrastructure. Currently there is not adequate criminal regulation to prosecute individuals who compromise such systems, this is also a problem that arises in respect of drone technology.*

### ***Other new regulations required?***

*It appears logical that the regulations produced alongside HARPS must identify the person or organisation responsible for updating, insuring and maintaining the vehicles and for guarding against cyber-attacks.*

*In response to - Do you agree that legislation should be amended to clarify that HARPS operators are “users” for the purposes of insurance and roadworthiness offences? - we stated:*

*Yes it seems sensible to bring HARPS in line with existing legislation. The more clarity and certainty provided, the better. It is not clear from the Consultation Paper which offences will be extended to include HARPS operators, but a review will need to be conducted to identify whether businesses (as opposed to individuals) are able to be prosecuted for the offences in question.*

*In response to - do you agree that HARPS operators should have a legal duty to: insure vehicles; supervise vehicles; report accidents; and taken reasonable steps to safeguard passengers from assault, abuse or harassment? - we said:*

#### ***(1) insure vehicles***

*Yes, we agree that HARPS operators should have a legal duty to insure the vehicles. Insurance, particularly in relation to cyber risks will be very important moving forwards. Legislation should specifically require insurance coverage to include potential connectivity issues and cyber security issues, as well as setting out what other areas of coverage are required.*

*There are a number of potential cyber risks posed by the implementation of HARPS, some of the key risks are:*

#### ***A “traditional” breach of personal data***

*It is unlikely that HARPS will process significant amounts of additional personal data when compared to ordinary public transport operators (who, for example, already use smart ticketing platforms and could track location data). However, more automation means more general commercially sensitive data being processed by operators. This will include increased route data, efficiency data, and bespoke artificial intelligence/machine learning data produced by the autonomous vehicle which may be valuable. All of this creates a cyber security risk to HARPS and puts them at risk of a disruptive*

attack. However, weighed against that, and with suitable security measures in place, largely anonymised usage data will very much help to improve customer service.

### **Malware/ransomware attacks**

Driverless vehicles will be the target of malware attacks, and with a public transport network of automated vehicles the potential for disruption from malicious software is significantly increased. The key risk is the fact that a 'threat actor' could potentially bring down an entire network of vehicles in the event that they are connected. This a particular risk if there is only one HARPS operator, and would put them under a significant exposure.

There are also other types of malware attacks that could target specific aspects of the automated vehicles, such as electronic readings on tyre pressure or fuel levels as well as global positioning software (GPS). There is also the risk of interference with specialist 'decision making' technology which is likely to become more prevalent in the future (i.e. the vehicle's software calculating the most appropriate manoeuvre in the circumstances).

### **Connection risks**

Autonomous public transportation would require a number of connection points through which hackers could gain entry into ecosystems, customer information logs and databases, or even penetrate manufacturers' back-end systems. Cyber threat actors could also exploit vulnerabilities in a third-party vendor's systems (which is something we see regularly).

Historically, security has been an afterthought in the design phase for vehicles and their components. Accordingly, manufacturers will need to implement end-point security by design. The GDPR provides that organisations should 'bake in' data protection into business practices from the design phase forward, but there is no obligation for this to be implemented within the vehicles themselves (vehicles would not necessarily be classed as being part of the organisations systems). Implementing security by design will help avoid the networks becoming an easy target for hackers exploiting vulnerabilities using cellular networks, Wi-Fi, and physical connection.

### **State-sponsored attacks**

There is technology that has the capability to block Wi-Fi and other communications channels such as GPS. This has recently been the subject of an alleged State-sponsored attack. This type of attack

could potentially halt a HARPS public transport network in a large city.

### ***Manipulation of safety-critical systems***

*There is the potential for hackers to take control of safety-critical aspects of a vehicle's operation; for example, by compromising the cruise control system to manipulate the steering and braking systems.*

### ***Possible downturn of consumer confidence in the technology***

*If the public perceive HARPS to have systematic cyber related risks, which could pose a threat to their safety, then use of the transport is at risk of being lower than conventional methods of transport.*

*We have been given an indication that mandatory insurance will be extended to the insurance of driverless vehicles in the Automated and Electric Vehicles Act 2018. However, what is not dealt with is the position in respect of a large scale driverless network (such as a driverless network operated by Transport for Greater Manchester for example). It is unclear who will pick up specific risks and the Automated and Electric Vehicles Act 2018 allows insurers to exclude risks such as:*

- *Where the accident was caused wholly due to the person's negligence in allowing the automated vehicle to begin driving itself when it was not appropriate to do so;*
- *Software alterations that were not allowed by the insurance policy; or*
- *A failure to install safety-critical software.*

*This raises the question of who picks up the bill where liability is excluded, and how organisations will be able to mitigate these risks. By allowing such exclusions it may make it more difficult for customers to obtain compensation in the event of an accident.*

*There is also the question of what type of insurance policy we are talking about here - a cyber policy (which is likely to be inadequate as this is unlikely to include cover for personal injury or death), a motor policy (which may not provide the relevant breach response cover that a cyber policy would provide), or a specialist combination of the two. The latter is the most likely and it remains to be seen how this develops. There is also the issue of whether such policies would include a war exclusion.*

## **(2) Supervision of vehicles**

*Yes we agree that HARPS operators should have a legal duty to supervise vehicles. It is also important that there is suitable training and guidance for 'remote supervisors' and that they are in turn also adequately supervised/supported and monitored in their role given their level of responsibility and their ability to give instructions to the vehicle remotely.*

## **(3) Reporting of accidents**

*The reporting of accidents should be a legal obligation, as should the reporting of non-untoward events data. The collection of such data from such an early stage, the quality and detail of which is consistent on a national level, will enable innovation and assist regulation in being pre-emptive rather than simply reactionary. This could lead to reduced costs further down the line.*

*However, if data regarding users of HARPS vehicles is collected in addition to data regarding events, appropriate provision should be made to implement strict data protections, particularly where data relates to vulnerable consumers.*

## **(4) Safeguarding passengers**

*In respect of taking reasonable steps to safeguard passengers, we agree that a general duty should be imposed, as the means of safeguarding passengers is likely to evolve as the use of HARPS vehicles increases. However, we would suggest that in this initial stage it should be a requirement that appropriately checked stewards are used so as to ensure that vulnerable/disabled users are not negatively impacted.*

*The answer to Question 11(4) is more difficult, as there is currently no duty on the provider of public transport to prevent assault, abuse or harassment other than from those under their control. Additionally, the Automated and Electric Vehicles Act 2018 will in most circumstances cater for liabilities to passengers in HARPS vehicles when driving in autonomous mode. However, it is foreseeable that the absence of someone in a position of some authority on a public transport HARPS vehicle may increase the risk of issues between passengers (although the statistics for crime on London's DLR don't necessarily support this). Perhaps some regulation to ensure that all HARPS are fitted with CCTV and other passenger safety measures would be in order. We agree with the Consultation Paper that most public reaction to CCTV is positive and this would work well, at least in the first phase, with a steward being present (see above) on larger public transport HARPS vehicles.*

*We believe a steward would have more authority and be in a stronger position to avoid passenger-to-passenger dangers when CCTV is also present.*

#### **Consultation Question 41**

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

**Do you agree?**

We agree but this would need to be exceptional and carefully prescribed.

#### **Consultation Question 42**

**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.**

This is outside our area of knowledge and expertise.

### Consultation Question 43

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

We have not provided a response to this question.

### Consultation Question 44

**We provisionally propose that:**

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

### **Do you agree?**

In principle, we agree with this approach. It is right that the provision of misleading information should be criminalised. It is key that the industry complies with the standards set and often, the only way to achieve that is to set down clear legal requirements with an ability to enforce them.

The offence for senior managers should be a separate 'parasitic' offence, in the same way as the section 37 offence under the Health and Safety at Work etc Act 1974 (HSWA). A separate offence for more junior employees might sensibly be introduced also, as is a breach of the section 7 HSWA duty to take reasonable care for the safety of those who might be affected by one's activities while at work. Alternatively, there could be a more junior employee offence with an element of knowledge, wilfulness or recklessness, for example a "knowingly omitting or misleading" offence. The decision on higher sentence if associated with death or serious injury might be better achieved through sentencing guidelines and the court's discretion rather than by the legislators.



## Consultation Question 45

We seek views on the following proposed offences.

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

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

- (1) fail to provide information to the regulator; or
- (2) provide information to the regulator that is false or misleading in a material particular where that information is relevant to the evaluation of the safety of the ADS or the vehicle.

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

The penalty would be an unlimited fine.

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

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

- (1) fail to provide information to the regulator; or
- (2) provide information to the regulator that is false or misleading in a material particular where that information is relevant to the evaluation of the safety of the ADS or the vehicle.

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

The penalty would be an unlimited fine.

### Offence C: offences by senior management

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

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

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

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

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

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

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

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

We agree with the proposals.

Offence A: "relevant information" should be defined if ADSEs are not to fall foul of the offence in minor or inadvertent situations. The information must be of significance on an objective basis.

Offence B: the information request must also be reasonable and relevant to the regulator's remit. The defence of taking reasonable precautions and exercising all due diligence is a common, well-worn defence in the regulatory context.

Offence D: The causation element of this offence might be difficult to assess/prove and a more flexible and effective approach might be to dispense with the need for a separate aggravated offence in favour of dealing with what are likely to be rare cases of this nature through appropriately formulated sentencing guidelines and the application of the Court's good sense and discretion. In terms of offences for more junior employees, see comments above.

#### **Consultation Question 46**

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

Given the proposed changes, we would encourage this approach. It would also be appropriate to consider publishing breaches, in line with the HSE and Traffic Commissioner approach.

Such information should to the largest extent possible be provided in and following a standard format. This should increase efficiency, clarity and certainty for all, and may help to reduce the burden of 'red tape'.

#### **Consultation Question 47**

**We provisionally propose that legislative amendment should clarify that the tampering offence in section 25 of the Road Traffic Act 1988 applies to anything that is physically**

**part of a vehicle and any software installed within it.**

**Do you agree?**

Yes we agree. It would be inconceivable for this offence to not include both the software and indeed the physical part of the vehicle.

#### **Consultation Question 48**

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

Yes this would seem sensible to cover all potential angles.

#### **Consultation Question 49**

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

**(1) England and Wales; and**

**(2) Scotland.**

**Do you agree?**

(1) Yes, if there be a causative link between the ‘tampering’ and indeed the death, then it is right and proper that a new offence is considered to mark the severity of the consequences much in line with the current range of offences that are already available under the Road Traffic Act.

(2) We agree with the proposal that there should be an aggravating offence, however section 22A of the Road Traffic Act 1988 does not apply in Scotland. Offences that would be charged under that section elsewhere are charged under the common law crime of “culpable and reckless conduct”. This would appear to be an ideal and logical time to ensure that the aggravated offence, once agreed upon, is applicable across the UK.

### **Consultation Question 50**

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

**Do you agree?**

Yes, we agree with this proposition.

### **Consultation Question 51**

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

This is outside our area of knowledge and expertise.

### **Consultation Question 52**

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

**(1) adequate at this stage; and**

**(2) should be reviewed by the UK Government in the light of practical experience.**

**Do you agree?**

From a product liability perspective, it is essential that further guidance is provided on the interplay between driver and vehicle on handover from driver to autonomous vehicle and from autonomous vehicle back to the driver. This will assist ADSE with providing adequate instructions with their vehicles to their road users and operators to reflect such guidance. Clear lines should be drawn where possible between who is responsible in various circumstances between the road users and the ADS and their ADSE to assist with establishing both potential causation and potential contributory negligence.

In our response to the preliminary consultation we stated:

*We do not believe that the current Automated and Electric Vehicles Act (AEVA) adequately deals with*

*situations wherein all or some of the loss or injury arising from a road accident has been caused by other road user's primary or contributory negligence or where, for instance, there has been an obvious failing in the autonomous systems in a vehicle in autonomous mode, but that has not caused or wholly caused any such loss or injury arising.*

*We believe that further guidance will be required and useful for the judiciary. Court time and judicial resource is very limited (both in civil and criminal litigation). There is typically little or no time for a forensic examination of vehicle ADS and sensor data in a sub-large-loss civil case or less serious criminal cases. Therefore, Judges are very likely to take an 'aerial' view of which road users (including users of AVs) are at fault and which road users have caused or partly caused the road accident. Judges are very likely, for the sake of expediency, to adopt a similar standard of driving for the artificial intelligence in an AV as of a driver in a manually-controlled vehicle. Doing so could risk miscarriages of justice / unfairness (and therefore satellite litigation). As a minimum, guidance on how and when vehicles move in to and out of autonomous mode will be crucial.*

It follows that we do believe that area does required phased review by the government in light of practical experience and assessments of liability and causation (and criminal culpability too) in the courts and over time. However, we also believe that there is a clear need for a rigorous and immediate review of the Highway Code in this context too. We understand that the same Highway Code is currently being reviewed in the context of vulnerable road users and priority between road users based on vulnerability. It makes good sense for a consideration of AVs to be worked in to this overall consideration as well.

### **Consultation Question 53**

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

#### **Do you agree?**

As we indicated in our response to the preliminary consultation, regulations will need to address whether the current dispute resolution mechanism for the majority of lower value personal injury claims arising from road traffic accidents (the MOJ Claims Portal and soon the Small Claims Protocol Official Injury Claims portal - 'OIC'), can - or should - be the mechanism for resolving a dispute involving an AV and where the vehicle is uninsured. Of note, whereas liability disputes fall outside the Claims Portal, they can remain in the OIC.

Claims fall outside the remit of the Claims Portal if liability is denied. This is likely unless the data evidence clearly indicates who is responsible for the accident. If it is obvious that the accident was caused by the ADSE then a product liability claim could be made against the “producer” under the Consumer Protection Act 1987.

In terms of AVs and ADSE it might be simpler to exclude accidents involving vehicles in autonomous mode from both the OIC and the Claims Portal and also to define people in AVs and ADSE as ‘vulnerable road users’ too. In passing, we note that e-scooters, EPACs and powered transporters are not currently classified as vulnerable road users within the OIC, and probably should be too. There are some difficult edge-cases with AVs. Some vehicles are AV-capable but this function is disabled when the policy is incepted. It would seem that the same vehicles would not then be covered, would be considered uninsured, if and when the user maybe activates the AV functionality and uses the vehicle as an AV but does not then have in place appropriate cover. Equally so, AVs in which the user has ‘hacked’ the software or indeed failed to ensure safety-critical software is installed could fall to be uninsured. It may fall to a forensic examination of the evidence as to whether a vehicle has hacked software (so uninsured) or not (so insured).

Firstly, it has always struck us as a little off-point to make it the responsibility of the user to ensure safety-critical software is up to date when it is the motor manufacturer or OEM who will be checking over the internet (cloud) to ensure the same software is up-to-date anyway, in practical terms - or this should reasonably be the case.

Secondly, the above edge cases perhaps show how road accident claims involving both AVs and issues of motor insurance cover are unsuitable to either the Claims Portal or OIC where a view will need to be reached on not only cover but liability and causation as well within either 15 or 30 business days. This strikes us as simply unrealistic.

Notwithstanding that, the end point should still be that the Motor Insurers’ Bureau (MIB) are the insurer of last resort, so it follows that the MIB, funded by motor insurers, should ultimately have to pick up even these edge-cases where no insurer otherwise affords cover.

#### **Consultation Question 54**

**We provisionally propose that:**

**(1) product liability law should be reviewed to take account of the challenges of emerging technologies;**

(2) any review should cover product liability as a whole, rather than be confined to automated vehicles; it should not, therefore, form part of this project on automated vehicles.

**Do you agree?**

Yes we agree that product liability law should be reviewed to take account of the challenges of emerging technologies.

The review should cover product liability as a whole rather than be confined to AVs. However, in our view AVs are distinct enough to warrant their own review of appropriate product liability laws.

In our response to the preliminary consultation which asked - *Is there a need to review the way in which product liability under the Consumer Protection Act 1987 applies to defective software installed into automated vehicles?* - we stated as follows:

*Yes, we believe that there is a need to review the way in which product liability under the Consumer Protection Act 1987 (the CPA) applies to defective software installed into automated vehicles.*

*Under section 2(c) of the CPA, 'product' is defined (as set out below) in such a way that makes it unclear as to whether or not software is included:*

*"product" means any goods or electricity and (subject to subsection (3) below) includes a product which is comprised in another product, whether by virtue of being a component part or raw material or otherwise.*

*Questions arise as to whether the software technology supplied to an automated vehicle (a non-physical product) is a product in its own right or part of the vehicle product as a whole.*

*Further complexities arise from over-the-air (OTA) software updates, which enable manufacturers and service providers to update the software technology in an automated vehicle remotely, for example:*

- *Will the software update, itself be considered a product under the CPA, or a service?*
- *How will the legislation distinguish between safety critical updates and other updates?*
- *Who is responsible for providing the updates, the manufacturer and/or the owner of the automated vehicle, and for how long?*

*Under the AEVA, the insured may not be compensated if there is a failure to install safety-critical software updates. Fundamentally, this strikes us as practically obtuse. In reality, safety-critical software updates will have to be uploaded and applied over the cloud/internet before start-of-journey and not intra-journey. We suggest the legislation be amended to place the onus on the OEM or manufacturer to ensure, by design, that autonomous vehicles cannot start their journey until safety-critical software updates are uploaded or it is confirmed that such software is already up to date, in much the same way that many vehicles will not allow the driver to set off if their seat belt has not been put in place. It makes no practical real-world sense to place this onus on the user-in-charge or driver or owner.*

*As the law stands, the question that arises in this respect, is whether a manufacturer will be able to raise a defence or strike out a claim where the vehicle owner/user has clearly failed to update the automated vehicle with genuine 'safety critical' software?*

*OEMs and manufacturers surely need to be incentivised to ensure that their own designs (vehicles) are safe for use. Again, the versioning of safety-critical software needs to be consistently and clearly communicated to the user-in-charge and drivers through standardised iconography, symbols and methods on the HUD or dashboard.*

*In response to - Do any other issues concerned with the law of product or retailer liability need to be addressed to ensure the safe deployment of driving automation? - we responded as follows:*

*Yes, we believe that there are other issues concerned with the law of product or retailer liability, which need to be addressed to ensure the safe deployment of driving automation.*

*Consumer Expectation Test under section 3 of the CPA.*

*In the context of autonomous vehicles, we anticipate that the application of the consumer expectation test could raise a number of issues.*

*As a product's design includes its warnings, a design defect claim could include failure to warn/provide adequate instructions based claims in respect of automated vehicles. The manufacturers of automated vehicles will therefore have to ensure that consumers have a clear understanding of what the automated vehicles and their automated features can and cannot do. Warnings provided with the automated vehicles will be crucial.*

*Definitions of safety critical features of automated vehicles will also need to be clarified and the*



*drivers/users-in-charge well educated in their scope and limits. Attempting to change the rules which are focused specifically around the consumer's reasonable expectation test under the CPA will be extremely complex.*

### ***State of the Art Defence***

*For design defects, the state-of-the-art defence will involve the feasibility of adopting appropriate design measures to reduce or eliminate a risk of which the manufacturer is aware, for example the need to cater for an inattentive driver. A claimant can always argue that better technology would have prevented the accident, but the manufacturer may not have a reasonable design alternative, even with the latest technology.*

*A question that arises here, is how will the state-of-the art defence apply to updated software technology?*

### ***Limitation***

*The following questions arise and will need to be considered\*:*

- How will the 10 year long-stop apply to updated software technology products (if they are considered products)?*
- Will the long-stop apply from date of supply of the original software product with the automated vehicle, or from the date of supply of the updated software itself?*

*\*The same issues on limitation also apply to defective software.*

We now wish to add that on a wider level consideration and with reference to the EU's Expert Group on Liability for New Technologies we also consider that a review of product liability laws in respect of emerging technologies should include for example:

Who primarily operates the technology and the potential impact of this on liability.

- A person operating a technology being required to comply with specific duties to properly operate, monitor and maintain the technology*

- A person using a technology which has a certain degree of autonomy should not be less accountable for ensuing harm than if said harm had been caused by a human auxiliary
- Consideration as to whether or not devices or autonomous systems should have a legal personality, and whether the harm they may cause can and should be attributable to existing persons or bodies.

### **Consultation Question 55**

**We provisionally propose that:**

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

**Do you agree?**

- (1) We agree with this proposal - essential data to determine handover, which feeds back to who is potentially liable between the user and the ADSE responsible for the ADS.

Whilst it entails the processing of personal data that has been relatively unheard of to date in connection with driving, the emergence of this new technology will naturally result in a more 'give and take' approach when it comes to the users of AVs. Subject to the existence of appropriate technical and security measures together with privacy notices / terms, we do not foresee there being an issue with recording this type of data in respect of AV users. We anticipate that it will simply become a standard part of the AV package.

That said, this data should have to include internal (as well as external) sensor data - to ensure that the potential at-fault insurer and, ultimately, the civil and criminal judiciary can readily discern whether the UIC or the autonomous systems were in control at the time any collision occurs and the chronology of time-sensitive events in the vehicle before the collision in terms of any transition demands and hand-over/hand-back.

(2) We agree that this is a sensible approach.

(3) We agree with this proposal. AVs are very unlikely to be confined to use solely within the UK. It is sensible to expect all national systems to adopt a collaborative approach and work towards the same standards for the purposes of allowing AVs being used on an international scale. As AVs still constitute relatively new technology, these data will be necessary for research purposes down the line. Furthermore, these data may be crucial from a police/investigatory/insurance perspective in order to effectively introduce them to the public.

### **Consultation Question 56**

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

#### **Do you agree?**

We agree with this proposal, provided that any reasonable restrictions in connection with the disclosure are appropriately regulated.

From a product liability perspective all emerging digital technologies including AVs should ideally come with logging features, where failure to log, or to provide reasonable access to logged data, should result in a reversal of the burden of proof in order not to be to the detriment of the injured party.

We also refer to our response to the preliminary consultation in which we stated as follows:

*With regard to insurers, access to data is vital to prevent occlusion of useful information, and to improve underwriting and provision of insurance for autonomous vehicles.*

*Clarity as to when/at what point a user-in-charge becomes liable from both a criminal and civil perspective for the operation of the autonomous vehicle, will be essential, not least for public confidence. The law must be clear in this regard. This will also be heavily dependent on evidence as to how and when the autonomous systems took control, whether they should have taken control, and how and when the user tried to take back control. It is therefore imperative that motor manufacturers are required to provide court experts and insurers ready and unfettered access to event data records and sensor data from vehicles in civil and criminal litigation involving autonomous vehicles.*

### **Consultation Question 57**

**We provisionally propose that:**

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

**Do you agree?**

We agree with this approach as it is perfectly reasonable under the circumstances. We are dealing with new technology where the approach may need to adapt as new information comes to light following AVs' introduction to the public and further research undertaken following the official rollout.

Furthermore, the destruction of the data should be regarded as damage, compensable under specific conditions.

### **Consultation Question 58**

**We provisionally propose that:**

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

**Do you agree?**

Yes, we agree with this proposal as it aligns with the consideration at question 56. An ADSE should be legally required to demonstrate that data can be processed in the manner required by both the enhanced legislative scheme and the GDPR to the satisfaction of the AV regulator before the ADS can be reasonably categorised as a self-driving system and widely adopted for public use.

## Further information

Any enquiries about the response or requests for further information should be addressed, in the first instance, to:

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