

Law Commission: Consultation Paper 3 –

A regulatory framework for automated vehicles

International Underwriting Association of London (IUA)

1. The International Underwriting Association of London (IUA) represents international and wholesale insurance and reinsurance companies operating in or through London. It exists to promote and enhance the business environment for its members. The IUA's London Company Market Statistics Report shows that overall premium income for the company market in 2019 was £27.633bn. Gross premium written in London totalled £21.436bn while a further £6.197bn was identified as written in other locations but overseen by London operations.

Executive Summary

2. IUA is broadly supportive of the Law Commission's proposals outlined in this consultation paper and complements the Law Commission on its comprehensive and well thought out three-part consultation process.
3. Fundamentally, regulation must differentiate between driver assistance and automation; Level 4 and Level 5 vehicles (as defined by the Society of Automotive Engineers (SAE International)) are the only classifications that should be defined as self-driving, a statement which is supported by Baroness Sugg's [letter](#) (dated 13 March 2018). The need for absolute clarity in respect of the meaning of automation applies also to defining users of automated vehicles and their associated obligations and liabilities. The responsibility for this lies not only with legislators in developing a robust and clear legislative framework underpinning automated vehicle use, but also those involved in the development and distribution of automated vehicles.
4. The use of data storage systems to record a wide range of key data points surrounding the use of automated vehicles, such as those outlined in Thatcham Research's [report](#) entitled 'Defining Safe Automated Driving', remains paramount. The Law Commission's view that legislation should impose a duty on those controlling automated vehicle data to disclose data to insurers and reinsurers (collectively termed 'insurers') in an easily accessible format is strongly supported. The importance of data to insurers in quantifying and analysing exposures, as well as to support an efficient claims process, should not be understated. More widely, it is paramount that all aspects of automated vehicle legislation are agile in order to account for developments in automated vehicle technology and its use.
5. In respect of 'safety assurance before deployment', UK regulators should have powers to control the rollout of automated vehicles through an approval authority or scheme that mirrors closely the UNECE system. This authority would have extensive powers that require ADSE's to submit an ADS for regulatory approval prior to its commercial deployment. Approval could be granted either for the system, which would allow developers to apply for approval, or for a whole vehicle. The regulator would then be able to make recommendations on the classification of the ADS as driver assistance, self-driving with a user-in-charge, or self-driving without a user-in-charge, which IUA agrees are suitable categorisations.

6. The proposed scheme must also regulate automated vehicles throughout their lifecycle and IUA is supportive of the majority of recommendations made by the Law Commission with regards to 'assuring safety in use'. In our view, regulators should have the power to collect information on and investigate instances where vehicles operate ineffectively; ensure that mapping systems are up to date; monitor and make recommendations on the marketing of automated vehicles; and, ensure that software updates are installed. IUA reinforces the need for serious consideration to be given to the cyber security aspect of regulating automated vehicles, outlining concerns expressed by the PRA in respect of systemic cyber risk and the need for insurance firms to consider the exposures that such risks may pose to their solvency.
7. On proposals surrounding the 'responsibilities of the user in charge', IUA agrees with the understanding that a user-in-charge is not a driver and should not be held liable for a criminal offence or civil penalty arising out of dynamic driving (while the ADS is engaged). However, the user-in-charge must reacquire the legal obligation of a driver at the end of the transition demand period, which is caveated with the need for further investigation and research to be conducted to ensure that transition demands can take place safely, with sufficient response times allocated.
8. Many of the views expressed in the section of the consultation on remote operation have previously been outlined in IUA's response to the Law Commission's consultation on HARPS. However, the IUA is also supportive of proposals for remote operation to be brought within the scope of the Automated and Electric Vehicles Act 2018 (AEVA) to ensure appropriate regulation and oversight of operators. Operators should be separately defined within the regulations and be required to supervise, maintain and insure vehicles, as well as install safety-critical updates and report incidents involving vehicles under their control.
9. IUA proposes that criminal or negligent behaviour with regards to automated vehicles, including wrongful interference from the public, should be treated with proportionate but sufficiently robust responses to act as a deterrent. In our view, on the matter of tampering offences, it is particularly important to ensure that the 'vehicle' be deemed to include infrastructure outside of the vehicle that is of vital importance to its operation.
10. Regarding changes in civil liability, IUA is generally supportive of the Law Commission's understanding of the way that AEVA deals with contributory negligence and causation. However, an ongoing review of causation and contributory negligence is recommended in light of the rapidly evolving technology. A broad review of legislation in respect of product liability is required, not only in the context of automated vehicles, as the Consumer Protection Act 1987 does not adequately deal with recent innovations in technology that have led to software being viewed as a product. This has emphasised the need for product liability law to take account of products that are cloud based and are regularly updated.

2. SELF-DRIVING AND HUMAN INTERVENTION

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?

11. The definition of 'self-driving' is a fundamental element of the legislative framework that will facilitate the deployment of automated vehicles and must provide certainty to all stakeholders involved in their development and use.
12. We agree with the Law Commission's understanding of self-driving. This aligns closely with the interpretation of automation within section 8 of the AEVA where 'a vehicle is "driving itself" if it is operating in a mode in which it is not being controlled, and does not need to be monitored by an individual'. This clarifies that assistance technology such as Automated Lane Keeping System (ALKS) do not fall within the definition of automation or self-driving.
13. It is our strong view that to support the safe rollout of automated vehicles, self-driving vehicles should be considered as Level 4 and Level 5 vehicles within the definition of the SAE. This interpretation was highlighted in Baroness Sugg's [letter](#) following the Bill's second reading on 20th February 2018, as follows: "the Bill does not cover conditionally automated (broadly equivalent to Level 3) vehicles".
14. Insurers have previously stated that a clear difference exists between assisted driving and automated driving systems. Assisted driving refers to systems that provide continuous support to the driver. The driver is required to remain engaged with the driving task and driver monitoring systems will be in place to ensure this happens. Whereas, automated driving refers to systems that are capable of operating in clearly defined automated mode(s), which can safely drive the vehicle in specified design domains without the need to be controlled or monitored by an individual. ALKS must be considered 'Assisted Driving' because the driver must be engaged and ready to respond to hazards and take control of the vehicle for it to be safe. The IUA is supportive of the minimum requirements for safe automation as outlined by Thatcham Research's [report](#) Defining Safe Automated Driving, which highlights 12 key criteria for safe automation and should be reviewed in light of the question posed.
15. IUA welcomes 2 (a) and 2 (b) as they are essential conditions to assist with ensuring that a user-in-charge responds to a transition demand. As stated in this consultation paper, ABI and Thatcham have cited a number of pieces of research that suggest that it may take between 15 and 40 seconds for a driver to be mentally and cognitively aware to be able to make a correct evasive decision. We would also highlight a [report](#) from AXA and Burges Salmon addressing key issues relating to handover in Level 3 vehicles.

16. More research must be conducted in order to understand the parameters that would make a transition demand safe for the driver and other road users. Without gaining this understanding there remains a risk that a user-in-charge is required to take control of the vehicle in a safety critical situation and is inadequately prepared to do so. This scenario would be a concern for insurers.

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.

17. IUA believes that accessibility is a key potential benefit of automated vehicles. We would expect self-driving features to be made available for those with hearing loss, who should not be restricted from accessing the benefits of automated vehicles.

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?

18. IUA agrees with the Law Commission’s recommendation that a specialist regulator be established to inform the decisions that are taken by the Secretary of State in agreeing whether a vehicle is sufficiently safe to ‘safely drive itself’. The processes of the independent regulator should be transparent and reported on to relevant governmental bodies e.g. DfT / CCAV. It is also appropriate that the decision requires political judgement, transparency and accountability.

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.**

19. As stated previously, a major selling point for investing in the development of automated vehicles is that they have the potential to make roads a safer place for all road users. It is our expectation that the minimum standards for assessing the safety of automated vehicles would be that they are at least ‘as safe as a competent and careful human driver’. It will be of the utmost importance that the definition of ‘competent and careful driver’ is clear and quantifiable in order to support manufacturers in their development of ADS. The quantification element could be in respect of incident frequency and severity rates, which could be used to benchmark the performance of automated vehicles.

20. As pointed out in the consultation paper, competent and careful drivers have far fewer accidents than the ‘average human driver’ and are unlikely to cause a fault accident. This suggests that the measure would be an appropriate minimum expectation for assessing the safety of an automated vehicle. Our members would expect a positive risk balance to be achieved in respect of automated vehicles, whereby they cause fewer injuries and accidents than human drivers, in order for them to be deemed a viable mode of transport. It remains paramount that automated vehicles approved for use on UK roads are monitored carefully and that sufficient reporting on their progress takes place, as discussed later in this consultation response.

Consultation Question 5.

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

21. The future trust that the public place in this technology ultimately centres on its safety being ensured and demonstrated, which is particularly paramount prior to and during its rollout on UK roads. As such, it has been and remains the view of IUA members that vehicle safety must be central to all aspects of automated vehicle regulation. We expect that a regulatory framework that is comprehensive, flexible and long-term will be in place to ensure that the technology is as safe as reasonably practicable. It is our view that this is the most important factor in ensuring road safety. As discussed in this consultation response, we expect that the framework develops alongside automated driving technology, not only supporting the technology during its rollout, but also monitoring its ongoing safe use. The framework should also hold manufacturers accountable for failures in automated driving technology and support sufficient trialling and testing in a wide range of real-world scenarios in order to limit the potential for such failures to take place on UK roads. It is our view that a combination of the points above will contribute to ensuring automated vehicles are as safe as reasonably practicable.
22. It is important to highlight that the use of automated vehicles must not only be carefully considered in respect of its impact on other similar vehicles, but thought is required to its interaction with pedestrians, cyclists and equestrians, the safety of which must be prioritised. This may also include other newer forms of vehicle, such as micromobility technology like e-scooters and electronically assisted pedal cycles (EAPCs), which are likely to form a greater part of the UK's future transportation network. The wide range of road users noted introduces complexity to developing the broad capabilities required within sensor technology in order to avoid collisions. Further, concerns also arise in respect of the ability for an automated vehicle to detect that a low-impact collision has taken place with another road user.

Consultation Question 6.

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

23. We are wholly supportive of any recommendations for ensuring that equality duties are met. However, we would defer to other stakeholders who are better informed to comment.

3. SAFETY ASSURANCE BEFORE DEPLOYMENT

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?**

24. We strongly agree with the Law Commission's proposals stated in Question 7. IUA advocates for a variety of techniques to be utilised to establish safety assurance, including simulations, track testing and road testing as identified in the consultation paper. It will also be prudent to stipulate that a safety case be submitted, supported by clearly defined parameters outlined to companies and the public by the regulator.
25. We agree with the assertions outlined in the consultation paper that the safety assessment must have built in flexibility allowing for a constant review of the processes that are employed. The assessment must also account for changes and growth in an industry that is widely acknowledged to be in the infancy of its development. The regulator must seek to evolve its testing procedures and standards as the technology matures.

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.

26. IUA encourages the highest levels of transparency and engagement in this process in order to ensure that all reasonable scenarios are considered and met. We agree that a consultation process should be embarked on with stakeholders to develop the scenario database and to address any feedback and concerns from stakeholders.

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?**

27. We firmly support the proposed ban on unauthorised automated driving systems being deployed on the road by developing laws that would actively discourage this practice. This is fundamental as unauthorised driving systems would pose a serious risk to the safety of road users and jeopardise the trust built with the public in this technology.

28. As stated in the consultation paper and previously in this response, road testing should be an important element of safety assurance prior to commercial deployment. There will, therefore, need to be a requirement for the authorisation of unauthorised systems for use in trials and tests to allow them to ultimately gain approval. IUA would not oppose the Secretary of State holding this authorisation subject to consultation on each authorisation with the specialist regulator. However, we ask that the testing framework, including the process to gain permissions and surrounding requirements for those involved in tests, be as robust as it has been to date, particularly as the numbers of trials increase.

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?**

29. IUA is supportive of a national ADS approval scheme as it would support the government’s intentions to be a world leader in automated vehicles. As stated in the consultation paper, this approach allows for two paths to automation (which the UNECE system does not) with the proposed national scheme allowing developers to apply for approval independent of being involved in the manufacture of the vehicle. We expect that the approval process is developed to ensure the same high standards of safety assurance irrespective of the path to automation. In circumstances where an ADS is installed in an existing vehicle, there must be detailed specifications for the type of vehicle, stipulated by the manufacturer and ultimately approved by the regulator. If it is considered that those installing ADS to existing vehicles and / or not developing the entire vehicle present greater safety risks than manufacturers developing the entire vehicle, the approach must be revisited immediately.

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?**

30. We are supportive of the proposals outlined in the consultation paper and would emphasise the importance of specifications that outline the type of vehicle an ADS is approved for and how it should be installed. We expect that the installation of ADS be carefully considered and managed given the system complexity, complexity of interactions with different makes and models and the potential knowledge gap that may be present in the early stages of technology rollout. If the entire system is not configured and integrated correctly, there would be a significant increase in the risk of the system failing and causing an incident.

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.

31. IUA defer to other stakeholders who are better placed to comment. However, we would be supportive of a transparent and fair system that provides ADSE's with a path to approval.

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?

32. We are supportive of a requirement for the safety regulator to apply the categorisation process irrespective of how the type approval was obtained (UNECE or national ADS scheme) and make recommendations to the Secretary of State for how the vehicle should be classified. IUA would also be supportive of an ADSE concept to ensure that lessons are learned if errors do occur and sanctions are correctly applied to systems that are affected.
33. It is important to emphasise that there needs to be a clear distinction between automated driving and driver assistance systems. The self-driving differentiation recommended in the consultation and outlined above in (3) is welcomed, as it clearly sets out different stages of assistance and automation. Whilst IUA understands that all systems will need to be approved in the same process by the same regulator, we would encourage careful consideration of the official language that is employed by regulators and other stakeholders involved in approval / categorisation to ensure that this clarity can be achieved at a consumer level. There remains a significant risk if there is any lack of certainty for users as to the capabilities of the system, their responsibilities and associated liabilities when it is engaged. This risk is exacerbated in respect of the second-hand vehicle market.
34. Driver assistance technology, whilst an essential step in the development of automated vehicles, is not automation and as emphasised in the ALKS consultation, could present a significant danger to road users if misused.
35. We are supportive of the extra parameters outlined within part (4) of the question.

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?**

36. We agree that this is an important part of safely implementing automated vehicles into the UK transport network.

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?

37. IUA is supportive of provisions for an appeal process against a categorisation decision, provided that a clear structure exists in order to ensure a consistent procedure. It will be important to ensure that a detailed set of expectations of developers and manufacturers be provided to support those seeking type approval, such requirements may limit the number of rejections or inadequate presentations made.

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.

38. We are supportive of the RAND Corporation's proposal for a graded approach to the deployment of automated vehicles where, after approval is received from the regulator and Secretary of State, a limited number of vehicles could be deployed commercially by manufacturers in order to gain more data to demonstrate the safety case in the real world. We envisage that the regulator would retain the ability to limit the scope of any automated vehicle deployment to permitted locations or even road-types, particularly in the context of automated vehicles designed for use within specific domains.
39. The consultation response rightly uses pharmaceuticals trials as an example where this method is used, but IUA would also draw the Law Commission's attention to the government's deployment of e-scooters. Lessons could be learnt from the process undertaken, during which the technology has been trialled across UK cities in small numbers and within prescribed parameters. Whilst the government's decision to approve e-scooters for use in trials has not been without incident (as there have been issues with misuse and confusion for providers as to the process for acquiring approval), the deployment of them through service providers has nonetheless provided government and industry with data that can be used in deciding whether to approve their use in a wider commercial context. We would encourage a more considered approach to the deployment of automated vehicles than in the case of e-scooters in order to limit the potential for injury and damage. However, well managed trials can provide valuable insight to potential risks surrounding evolving technologies, not only to support their eventual rollout, but also insurers' ability to support that rollout effectively.

4. ASSURING SAFETY IN USE

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?

40. We are strongly supportive of legislation to establish a scheme assuring the safety of automated driving systems following their deployment and throughout their lifecycle. It is important that as this technology develops, the system remains flexible to changes in the risk profile of the technology.

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?**

41. We agree with the market surveillance proposals outlined in the consultation paper, which represent an important process to support the safe use of automated vehicle technology.
42. It is important to emphasise that part (3) of the question (detailing regulators powers) will be paramount in ensuring the safe rollout of this technology on UK roads. Regulators should also consider alternative ways to reinforce best practice in this respect. Given the importance of software and connectivity in the effective use of automated vehicles, cyber security and software updates will need to be considered throughout the lifecycle of vehicles. A scheme such as that proposed provides appropriate regulatory oversight of these issues.
43. Communication to consumers, users and others who may have interactions regularly with the technology will be vital to its successful uptake, as has been regularly emphasised by market stakeholders. To continue to build public confidence in automated vehicles, the government should consider the communication and marketing around these products to be a central aim for any prospective regulator or scheme that is responsible for automated vehicles. It is particularly important that the regulator is able to oversee communication to consumers by manufacturers that clearly outlines the limitations of the technology and how the user will safely interact with the technology.

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.)**

44. We do not have a specific view on which entity should deal with the cybersecurity aspect of automated vehicles, but strongly believe that all stakeholders must understand the fundamental issue of cybersecurity. If a scheme also deals with cybersecurity centrally, it is essential that the entity is competent and well-informed, able to monitor and manage a rapidly evolving and significant cybersecurity risk.
45. The potential for a systemic cyber event to impact upon multiple automated and presumably connected vehicles presents a fundamental concern, particularly for those IUA members providing reinsurance policies. The Prudential Regulation Authority (PRA) in the UK has been engaged on the subject of cyber risk for several years and has outlined its clear expectations to the insurance market (including via PRA Supervisory Statement SS4/17, July 2017). There is an expectation that regulated firms (applying to all IUA members) 'robustly assess and actively manage their insurance products with specific consideration to non-affirmative cyber risk exposures'. Please note that 'non-affirmative cyber risk' refers to cyber insurance coverages that are not written within a standalone cyber insurance market, for example, motor.
46. When providing insurance products for automated vehicles, it will be of the utmost importance for all insurers to consider the potential for cyber risks to impact upon their solvency. Therefore, advanced robust testing and cybersecurity measures will support the insurance market's ability to adequately understand and address cyber risks in line with the PRA's expectations. It is our strong recommendation that cyber security is considered broadly in the understanding that automated vehicles may rely on wider communication infrastructures to operate; the effectiveness of such potential single points of failure should be evaluated. Additionally, the speed at which the cyber security of a particular automated vehicle can change should be accounted for when empowering scheme regulators to monitor vehicle safety. This is key in light of the ability of malicious actors progressively increasing overtime, meaning that an actor could ultimately breach a system that they previously could not.
47. When considering cyber risk, it is important to not only consider malicious events, but the potential for widespread failures in technology that could result in accidents taking place simultaneously or in quick succession, nullifying any ability for a manufacturer or regulator to restrict use of the impacted vehicle(s) and prevent such accidents.
48. With regard to part (3), IUA supports scheme regulators having an influence in the marketing and information dissemination of these products to consumers to ensure that the capabilities of the technology are fully understood by its users. As stated previously in our ALKS response to the government, it is essential that the industry avoids projecting any misconceptions around the ability of any driver assistance or automation as the market looks to build consumer confidence in automated vehicles. The mis-labelling, mis-selling or in-appropriate regulation of this technology could result in its broad uptake being delayed by many years, as users may quickly lose trust in its capability following

accidents resulting from these vehicles. This message should flow from government and manufacturers, through to hire vehicles and second-hand resale: two areas in particular where IUA recognise that greater difficulty may exist in ensuring all parties remain aware of the capabilities and driver obligations for automated vehicles.

49. Any prospective regulator should also have additional powers to withdraw vehicles from the road due to safety concerns.

Consultation Question 20.

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

50. IUA would defer to other stakeholders who are better informed to comment. However, we would emphasise the importance of an effective and efficient authority and suggest that separate authorities would require clear reporting lines in order to ensure ongoing communication.
51. One IUA member outlined that a single body would be more effective as the relevant expertise would be contained within one place allowing engagement across the entire lifecycle of a vehicle. In their view, the split-responsibility could lead to a lack of coordination. It was recommended that consideration be given to developing a close working relationship between the authorities, if the authorities were separate, with the strategic objective of a single body being created in the future.

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)?

52. IUA would recommend regular engagement with market stakeholders, including insurers, through a formal review process and consultation. It would also be beneficial to take into account critique from applicants to the scheme through the approval and appeal process as to the effectiveness of the scheme.

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?**

53. IUA agree that a statutory scheme such as this would be advantageous to implement. Information such as safety-related infractions and traffic infractions where the ADSE is at fault would likely be required by insurers in order to accurately evaluate the risk or product. This process would operate similarly to that whereby drivers are required by law to report infractions and any penalties received as a result to their insurers.

54. The proposals outlined bring rise to some questions for further consideration, as follows:

- Which entity will collect and store the information and who will have access to the information?
- To what extent will vehicles be required and / or able to self-identify and report on safety and or other traffic infractions?
- Will a formal process be implemented to allow / require a user of an automated vehicle to report traffic infractions identified during the use of the vehicle?

55. IUA have outlined scenarios of concern in previous Law Commission consultations in respect of low impact collision. These considerations highlight that current 'automated' systems do not adequately replace an attentive driver and would not meet the safety threshold outlined in this consultation. Not only is this potentially in breach of road traffic rules, but it is also extremely problematic for insurers in complying with their legal obligations under the AEVA.

56. A further consideration in this regard is situations where an automated vehicle causes an accident to take place, but there is no impact upon the vehicle. This could include, for example, where over or under braking causes another road user to swerve and collide with road furniture or another road user. In such circumstances, it may be difficult for authorities to track the vehicle and, in the event that the vehicle is identified, data collected by the vehicle at the time of the accident may no longer be available. Examples such as these should be collated by the relevant regulator and considered in order to ensure that automated vehicles are as safe as reasonably practicable.

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?**

57. We agree with the approach outlined. It would be appropriate for a formal process for imposing the sanctions to be developed (and recorded) to ensure consistency in the approach taken and to reduce any potential subjectivity in the process.

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?**

58. IUA agrees that the proposed legislation should provide the regulator with discretion on the monetary penalty and steps to prevent a re-occurrence. It would be appropriate for a formal process for imposing the sanctions to be developed (and recorded) to ensure consistency in the approach taken and to reduce any potential subjectivity in the process. Further analysis may need to be conducted to understand how the proposed flexibility around monetary penalties interacts with the approval

requirement for an ADSE to have 'sufficient funds' to respond to regulatory action, whilst ensuring that penalties are a sufficient deterrent.

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?**

59. IUA believes it is key to have a central unit with appropriate expertise to investigate collisions involving automated vehicles, given the additional complexities that their introduction brings to UK roads. As discussed previously in this consultation response, we believe that a legislative framework must be agile in order to encourage the ongoing monitoring of automated vehicles and to respond to recommendations from entities, such as the specialist collision unit proposed. It should be noted that the information collected by such a unit would be invaluable to insurers in considering the risks posed by automated vehicles.

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?

60. IUA agrees that a forum should be established for collaboration on the application of road rules to self-driving vehicles. As discussed in the consultation paper, it is not as simple as digitally copying the Highway Code into a set of algorithms for computers to interpret and a working group that can engage with the public and broad interest groups appears to be a logical solution. IUA would encourage a cautious approach to the interpretation and application of road rules in order to protect public road users effectively.

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.**

61. We do not have any specific views in response to this question.

5. RESPONSIBILITIES OF THE USER-IN-CHARGE

Consultation Question 28.

We provisionally propose 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?

62. IUA agrees that the user-in-charge 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. However, consideration must be given to the meaning of 'in direct line of sight', which must be clearly defined and emphasis placed on the user-in-charges' ability to take over should the vehicle experience complications. A lower speed limit may be necessary for manoeuvres where a person is outside of the vehicle to manage the associated risk of the user not being in proximity to the controls of the vehicle.
63. We would also agree, in principle, that that user-in-charge cannot be defined as a driver while the ADS is engaged and, as such, would not be liable for any criminal offence or civil penalty that arises out of the ADS. As stated previously, accurate data for each automated vehicle must be collected and stored in order to distinguish whether the user-in-charge is legally in control of the vehicle should any criminal offence or civil penalty issue arise.

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?

64. We agree that the user-in-charge should re-acquire the legal obligations of a driver, whether or not they have taken control of the vehicle, following the end of a transition period that is clearly highlighted to the driver. We also believe that should the vehicle be required to perform a minimum risk manoeuvre following failure to take back control of the vehicle, this should constitute a criminal offence. This becomes particularly important should the legislative framework ultimately permit a minimum risk manoeuvre where the vehicle may stop in lane, as proposed in respect of ALKS, which IUA along with other market stakeholders have emphasised must be avoided. It is important to highlight that our answer to this question is contingent on an adequate response period being allocated. In a situation where a user is required to take back control at very short notice within which the user could not be sufficiently re-engaged with the driving task, it would not be appropriate for the user to be penalised.
65. We suggest that the Law Commission consider any extenuating circumstances within which it would be inappropriate to hold a user liable following a failure to respond to a transition demand. An example would be a situation where the user was impeded by a medical emergency.
66. IUA strongly believes that there should be an emphasis placed on the safety of a minimum risk manoeuvre when authorisation of automated vehicles is being considered.

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.

67. IUA is supportive of this proposal, which could facilitate the process to ensure future automated vehicle users familiarise themselves with this technology. In light of the intention for automated vehicles to be commercially available to purchase, it would be beneficial for those with a provisional licence to have the opportunity to become accustomed to the independent use of automation, particularly as there may be cases where a newly qualified driver may have an automated vehicle as their first car.
68. The government should assess how best to categorise automated vehicles within the UK driving licence system and a review should be completed to ensure that there is sufficient training for existing drivers as well as novices.

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?

69. We are supportive of these proposals.

Consultation Question 32.

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

70. We agree with this proposal, subject to the exceptions stated in Question 33.

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.

71. We agree with the clarification that the proposed offence should only apply if the person knew that the vehicle did not have a user-in-charge or knew or ought to have known that a user-in-charge was required. It follows that persons that are knowingly carried in an automated vehicle without a user-in-charge should be penalised in order to deter this practice, which would endanger other road users. However, it may be difficult to prove that someone knew that the vehicle did not have a user-in-charge and would suggest that the phrase 'knew or ought to have known' may be more suitable.

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.

72. IUA agrees with (1) and (2). It would be logical to provide a specific defence to drivers who have taken back control of a vehicle and, given the actions of the ADS, would have been unable to avoid the offence.
73. It is also worth stating that if the user-in-charge takes control of the vehicle in order to mitigate the risk of an accident caused by the ADS, the user-in-charge should not be responsible for failing to prevent the accident. It will be imperative that full and detailed data surrounding an accident, including system errors or defects present, is made available to insurers upon request in order to establish negligence. Consideration should be given to how the burden of proof would operate in the circumstance where it is unclear from the in-vehicle data and any other evidence whether an accident was imminent and was not identified by the ADS. When considering this proposal, due attention must be given to the potential for dishonest users to take advantage of any specific defence.
74. It remains of the utmost importance that an agreement with insurers is reached to ensure that in-vehicle data is provided to them in a usable format, following an incident, to ensure that consumers receive speedy and appropriate redress following an incident.

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?

75. IUA agree that the user-in-charge should be liable for criminal offences which do not arise from the dynamic driving task, as outlined in the consultation paper. However, in the event of rental or temporary use through a service provider, it would be unfair to expect the user of a vehicle to ensure roadworthiness and that safety critical software updates have been installed. We expect, in these situations, the rental company or service provider to maintain responsibility over the installation of such updates.
76. One member highlighted that technology exists enabling a vehicle to self-park out of the line of the sight of the user-in-charge. It is recommended that thought be given to where liability should reside in such circumstances.

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?

77. We agree that there must be legislation to allow for clarification of those roadworthiness failings that are the responsibility of the user-in-charge.

6. REMOTE OPERATION: NO USER-IN-CHARGE VEHICLES

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”.

78. We agree with the proposals outlined within the consultation paper. It is appropriate that if an individual is supervising a vehicle from a remote location, which may involve an element of monitoring, the vehicle should not necessarily be disqualified from being classed as self-driving, if only to ensure that any remote operation centre would therefore be required to be regulated under the same proposals.
79. IUA agrees with the proposed amendments to the AEVA that would bring remote operations centres within the scope of the AEVA and clarify that the vehicles would only be permitted on the roads if they were classified as safe and overseen by a licensed operator. Further assessment will likely be necessary in order to appropriately define ‘monitoring’ and the associated responsibility of a remote operator.

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 (NUIC) 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?

80. IUA agrees with the proposal to differentiate between an ADSE and operator as they have fundamentally different responsibilities in the industry, as outlined in the consultation paper. We would also be supportive of the subsequent proposals outlined in the question to ensure that all vehicles authorised for use on roads with no user-in-charge have a licensed operator or be covered by a contract with a licensed operator. Further, to ensure that the operation of a NUIC vehicle without a licensed operator would constitute a criminal offence as the vehicle would be required to operate outside of its design domain, potentially placing members of the public at risk.

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.

81. As outlined previously in our response to the Law Commission's consultation on HARPS, operators of taxis have a legal duty of care to fare paying passengers from a Road Traffic Act perspective, for both injury through poor driving (e.g. falling down through harsh acceleration or deceleration) and for the passengers' security. Operators using this technology will need to demonstrate that they are able to perform their duty of care without a 'driver' being present and it seems logical that this should be done through an established national standard or test that each user would be required to undergo in order to become an operator.

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?**

82. As outlined in IUA's response to the Law Commission's HARPS consultation, we would expect a licensed operator to be responsible for the duties to ensure the safe operation of a remote operation, unless there is a contract in place with a user that reasonably states otherwise, as outlined in our response to question 41.
83. Specifically, regarding the maintenance of such vehicles, one member had previously recommended engagement with trade bodies, such as the IRTE and SMMT, to ensure that maintenance standards are updated. It is crucial that both in-house engineering and specialist third party independent repair and maintenance bodies are suitably educated to new standards. This is to ensure that the safety of new vehicle technology is maintained.
84. Additionally, it is recommended that the licenced operator be required to report untoward events beyond the pure driving task, such as illegal passenger behaviour.

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?

85. IUA agrees with the proposed legislation outlined, which would include a regulation-making power for the duty to supervise, maintain, insure, install safety critical updates and maintain cyber security, as well as to report accidents and for untoward events to be transferred to a registered keeper or user if appropriate.
86. We would expect the most stringent requirements for the transfer of this responsibility to be on the installation of safety-critical updates and to maintain cyber security, as this is likely to require regular monitoring and is a concept that owners of conventional vehicles may be unfamiliar with.

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.

87. We agree with the proposals outlined by the Law Commission for ensuring accessibility and inclusivity in the development and rollout of this technology. However, we would defer to other stakeholders who are better informed to comment on the intricacies of this recommendation.

Consultation Question 43.

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

88. IUA would defer to other stakeholders who are better informed to comment on who should administer the operator licensing scheme.

7. CRIMINAL OFFENCES BY ADSES AND THEIR SENIOR MANAGERS

Consultation Question 44.

We provisionally propose that:

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

89. We strongly agree that misleading the scheme in the classification of a vehicle should be punished to deter any such behaviour and to maintain the highest of standards. IUA believes it may be appropriate for the offence to be applicable to senior managers, rather than junior employees, as the individuals that would be responsible for overseeing such a project. As we have continuously stated throughout recent years when engaging on this topic, readily available safety information and education around these products is crucial to building public confidence and any effort to deceive the regulators or the public as to the efficacy of any such system should be punished. Primarily, this will act as a deterrent to ADSEs and senior managers. We would defer to other stakeholders who are better informed as to the specifics of any penalty and the correct prosecuting body.

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.

90. IUA would defer to other stakeholders who are better informed to comment. However, we would encourage any penalty to be proportionate to ensure that it discourages the behaviours outlined from occurring and reoccurring.

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.

91. It is imperative that an ADSE is under a duty to present information in a standardised, clear and accessible form to provide consumers with the transparency and clarity required to maintain public safety, build public confidence and ensure that consumers understand the safety-critical aspects of the system.

8. NEW WRONGFUL INTERFERENCE OFFENCES

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?

92. IUA would propose that in the case of section 25 of the Road Traffic Act 1988, legislation should clarify that software is physically part of the vehicle and tampering with that software, such as attempting to hack into the system, would constitute an offence.

Consultation Question 48.

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

93. We agree that a tampering offence should extend to include external infrastructure required for the operation of the automated vehicle and acknowledge the examples provided in the consultation document regarding sensors or interference with such using lasers.
94. We would highlight work that is being conducted by the National Physical Laboratory (NPL) on the development of sensor calibration technology that could be installed in roads. This technology has the potential to play a vital role in providing automated vehicles with constant points of reference along their journey to ensure the vehicle maintains an accurate understanding of its surroundings. Tampering with such technology would put road users at risk and IUA would expect this technology to be included within the definition of external infrastructure, even though it is not part of the vehicle.

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?**

95. IUA would be supportive of the proposal that should actively discourage people from interfering with an automated vehicle, the road, or traffic equipment ensuring the safety of road users.

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?

96. We agree with the proposals, but suggest that consideration be given to the use of the term 'intent', which can be difficult to prove. However, we note that there is adequate case law on the term to support its use in defining a criminal offence.

Consultation Question 51.

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

97. As expressed in other sections, it is crucial that both in-house engineering, such as those authorised by a vehicle manufacturer, and independent third-party maintenance and repair receive the specialist education required to ensure that automated vehicles safety is upheld. IUA would recommend engagement with the relevant trade bodies, such as the IRTE and SMMT, to better understand how to ensure that this education is proliferated through the industry.
98. IUA would note that the lack of testing on the interpretation of section 22A, which makes it a criminal offence for any person to interfere 'intentionally and without lawful authority or reasonable cause' with a motor vehicle, trailer or traffic equipment, is problematic. However, IUA would expect the interpretation of this law to be in line with the Law Commission's interpretation that it would only criminalise actions taken without lawful authority for which there is also no reasonable cause, such as a vandal damaging brakes or side mirrors. It would not be the intent of the law to criminalise the actions of a mechanic that installed a new piece of software.

9. CIVIL LIABILITY

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?

99. The intent of Section 3(1) is sufficiently clear and the rationale behind Question 52 is supported. However, in our previous response to the Law Commission's 2018 consultation document, we agreed with the suggestion that the courts should not treat the issue as if a human driver had been involved.
100. With any piece of new legislation and particularly one concerning a developing technology, we would recommend the ongoing review of that legislation. As information relating to incidents involving automated vehicles emerges, their use grows and potential vulnerabilities and risk areas emerge, it is imperative to ensure that any relevant legislation remains appropriate. We have received views from members stating that there remains uncertainty that could ultimately impact upon the ability for insurers to accurately price for exposures relating to automated vehicles. It is suggested that further clarity could be brought through the development of automated vehicle accident scenarios, which could be used to illustrate the application of the legislative framework to a range of different potential incidents.
101. By way of background, the IUA responded on behalf of its members to the government's 2015 Pathway to Driverless Cars Consultation. In our response, we provided support for the approach subsequently taken within the AEVA in making the motor insurer responsible, in the first instance, for the payment of a claim where the cause of the event was an automated vehicle. We determined that this would be the simplest way of accommodating automated vehicles within the existing insurance framework, incurring the least amount of changes to current practices, whilst ensuring that victims of collisions are indemnified without undue delay.

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?

102. IUA is supportive of measures being developed to compensate victims of accidents caused by uninsured automated vehicles. Under current legislation, the Motor Insurers' Bureau (MIB) is responsible for compensating victims of incidents on UK roads involving vehicles that are uninsured. It seems appropriate and logical for this to remain the MIB's remit with regards to automated vehicles, though we would defer to the MIB for further considerations in this regard.

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?

103. IUA would be supportive of the Law Commission's proposal to review product liability law in order to take account of the challenges of emerging technologies in the context of the Consumer Protection Act 1987 (CPA), which only deals with physical products that are unchangeable. As helpfully outlined in the consultation paper, the CPA only covers embedded software within manufactured goods and there is no direct mention of software, making it difficult to determine the relationship between software and hardware.
104. We would be supportive of a broader review of product liability law to deal with the issue of whether software is a product and how that can be regulated given the importance of over-the-air software updates. Such updates are central to the safe rollout of electronic products, including smart medical devices and automated vehicles, and which are not covered under the CPA in its current form.
105. The European Product Liability Directive (PLD) introduced a regime of strict product liability, which meant that those injured by products may recover by showing that the product is defective or that it does not provide the level of safety a person is entitled to expect. The advantage of this traditionally was that the individual only had to prove the existence of a defect and not negligence. However, this has now been complicated on two counts, as follows:
 106. Firstly, the current CPA places the burden of proof on the party claiming a product is defective. The complexities of automated vehicles and the particular challenges of accessing necessary data to prove a product defect may restrict an insurer's ability to claim against those involved in the development of an ADS. One of our members suggests that it may be sensible to assess whether the burden of proof should be reversed to encourage manufacturers to share relevant vehicle data.
 107. Second, the development risk defence which enables liability for defective products to be avoided by showing that the defect could not have been discovered in the current state of scientific and technical knowledge complicates the law further in this respect. This is because it can be complex to capture the state of scientific and technical knowledge at the time a product was put into circulation. Difficulties are also posed by the complexity of software updates and the need to identify the point at which a product became defective, whether that be at the time it was put into circulation or following a software update. Effective regulation and cataloguing of safety critical updates will likely be a fundamental part of this process.

10. ACCESS TO DATA

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?

108. IUA are supportive of the provisions outlined in Question 55, especially regarding the proposal for government to work within the UNECE to ensure a black box type data storage system be installed in all approved automated vehicles and be capable of collecting data at all times.
109. Underpinning the use of any automated vehicle is the availability of data around how that vehicle has operated and the level of intervention from a user within the vehicle. A key theme that has been reinforced by IUA members for several years is that it is of the utmost importance that an agreement with insurers is reached to ensure that in-vehicle data is provided to them in a usable format, following an incident, to ensure that consumers receive rapid and appropriate redress. We would recommend exploring the possibility of a statutory requirement to collect, hold and transfer data, such as the following:
 - time and location of event;
 - status of automated driving system (engaged or unengaged);
 - details of actions taken by 'user-in-charge' / driver;
 - details of any recent handovers;
 - speed of vehicle prior to and at collision; and
 - camera footage.
110. We also highlight Thatcham Research's [report](#) entitled 'Defining Safe Automated Driving' in this respect, highlighting that data requested would include variables such as a GPS-event time stamp, activation status of each automated driving feature, a record of driver intervention of steering, braking, accelerator or gearshift and whether a Minimum Risk Manoeuvre has been triggered.
111. Insurers would also welcome access to in-vehicle data from the 'normal' operation of an automated vehicle. Such information could include reporting of any defects within a particular system or type of vehicle, the proportion of time specific vehicles or types of vehicle are in automated mode and the number of times a user was asked to take control of a vehicle. Data could allow broader analysis of hot spots for accidents, highlighting areas that automated vehicles have encountered issues dealing with, or specific types of obstacles, and potentially warning other vehicles. This information will likely prove paramount in supporting insurers' understanding of this technology and pricing approaches taken.

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?

112. IUA welcomes the focus on data within this consultation and is strongly supportive of the proposed legislation to ensure that in-vehicle data is provided to the insurance industry in a usable format following an incident. We would encourage data owners to be required to give due consideration to the ability for data provided to be easily interpreted and utilised; it may also be appropriate for written reports on specific events to be issued to insureds to support and increase the efficiency of the claims management process.
113. The IUA has made clear that more widely insurers utilise data to analyse and quantify their exposures, in order to effectively manage the risks that they insure. This is paramount for IUA member reinsurers who continually seek to understand and control potential systemic risk, which is a key consideration with the development of automated vehicles and particularly those that are connected.

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?**

114. IUA has some concerns regarding the proposed three year period. There may be specific scenarios whereby data is required after this period, such as where injuries may worsen over a number of years. We strongly agree with the suggestion that this matter should be reviewed in light of experience.

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?**

115. We agree with the proposals outlined in respect of this question as to how the ADSE should present the regulator with clear details on how data will be recorded, stored, accessed and protected.