Law Commission: Consultation Paper 3 – A regulatory framework for automated vehicles

Response from AXA UK

About AXA UK

1. AXA UK (AXA) is part of AXA Group is a worldwide leader in financial services operating in 54 countries with over 153,000 employees and 105 million customers worldwide. In the UK, AXA operates through a number of business units including, AXA Insurance and AXA Health, and employs around 8,000 employees. AXA has been involved in the automated vehicles space since 2014 and has partnered five Government-backed projects – FLOURISH, Capri, UK Autodrive, Robopilot and VENTURER.

Executive summary

2. As a leading insurer supporting the development of Connected and Automated Mobility, AXA welcome this opportunity to submit our feedback to this Call for Evidence on the Safe Use of Automated Lane Keeping Systems (ALKS). AXA is committed to finding and developing ways to make our roads safer, more efficient and more accessible for those currently unable to drive. We firmly believe assisted driving technology and automated driving technology are transport innovations that can provide these societal benefits for the UK road network provided it is supported by a clear legal and regulatory framework.

3. AXA has been involved in the automated vehicles space since 2014 and has partnered five Government-backed projects, focusing on different aspects of CAV testing and development. Our role in these consortiums is to provide advice on safety, regulation, liability and data. Furthermore, AXA gave evidence to the Public Bill Committee on the Automated and Electric Vehicles Act 2018, which is a crucial piece of legislation for consideration when assessing the use of ALKS on Great Britain's roads. In recent months, AXA with the legal firm, Burges-Salmon, is engaging with Government and the Law Commission through a new All-Party Parliamentary Group on Connected and Automated Mobility to support the safe and effective deployment of self-driving technologies across the UK.

4. In the below response, AXA has outlined a number of areas where there is general agreement with the approach of the Law Commission, including the need for political judgement and accountability for determining whether a vehicle is sufficiently safe to "safely drive itself", the proposals for the automated driving system approval and assurance schemes and the Law Commission's intended proposals to ensure automated vehicle data can be accessible to insurers for the purposes of establishing liability in the event of an incident.

5. For AXA, it is critical that the definition of self-driving must clearly delineate between SAE Level 3 and SAE Level 4/5 vehicles. Classification of Level 3 vehicles, where a human occupant is relied upon as a fallback, as a form of self-driving would not only be inherently unsafe but could deride the UK's Future of Mobility project by undermining consumer trust. Furthermore, provisions that ensure insurers have access to specific data in the event of an incident are fundamental for establishing liability, effective claims management for those involved in road traffic accidents and enabling insurers to meet their obligations under the Automated and Electric Vehicles Act 2018.

CHAPTER 4: SELF-DRIVING AND HUMAN INTERVENTION

Consultation Question 1 (Paragraph 4.114)
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?

6. The legal and regulatory framework underpinning the deployment of Automated Vehicles must be clear on the definition of 'self-driving' and a user should be clear on their responsibilities. The Automated and Electric Vehicles Act defines "driving itself" as "operating in a mode in which it is not being controlled, and does not need to be monitored, by an individual", AXA interprets this definition in a similar way to the Law Commission. A vehicle is only capable of self-driving if the occupant of the vehicle does not need to monitor any aspect of the driving environment, the vehicle or the way it drives.

7. AXA's firm belief is that for the purposes of safety and clarity, only Level 4 ("Automated Driving") and Level 5 ("Autonomous Driving") vehicles under the Society of Automotive Engineer's definition should be considered as self-driving vehicles. With regard to civil liability provisions as defined under the AEVA 2018, the Bill was never intended to be aimed at assisted driving technologies, but more advanced automated and driverless systems. This interpretation was further supported in Baroness Sugg's letter following the Bill's second reading on 20th February 2018, where it clearly states that "the Bill does not cover conditionally automated (broadly equivalent to Level 3) vehicles". This is a position AXA would urge is maintained.

8. As rightly referred to by the Law Commission, the Minimum Risk Manoeuvre is a critical element of ensuring safety in the event of a system failure or a non-responsive user-in-charge. It would be unsafe for vehicles that require a human driver to act as a fallback when the automated driving system is engaged to be authorised as an automated vehicle. For this reason, AXA considers SAE Level 3 vehicles to not reflect a safe or sustainable form of automated driving. To enable these types of vehicles to be listed as a form of automated driving would only entrench misconceptions about the capabilities of these vehicles and result in blurring responsibilities for users. While decisions on vehicle type-approval are made at an international level, conditional automation is likely to confuse drivers who may over rely on the system when it is not appropriate to do so. Not only are there safety risks attached, the public's take-up of this technology relies on clear legal and regulatory framework that instils trust for users.

9. With regard to transition demands, AXA agrees with the proposal listed by the Law Commission. However, AXA believes further assessment of what would constitute a 'sufficient time to gain situational awareness'. AXA has concerns about the requirement suggested by Government in their consultation *Safe use of Automated Lane Keeping System on GB motorways* where a driver will have a minimum of 10 seconds to respond to a transition

demand before the vehicle performs a Minimum Risk Manoeuvre, particularly where a driver can disengage from the driving activity and perform secondary tasks. Research has suggested that drivers typically need 12 to 15 seconds to take back full control of the vehicle (Kuenh, et al., 2017), but there are also other elements to consider beyond the handover time. As partners of the VENTURER trial, AXA and Burges Salmon published a report that addressed issues related to handover in Level 3 vehicles, one of the key findings was that while total response time in 'best case' conditions in a planned handover can be relatively quick (as low as 2-3 seconds), once a driver has taken back control they tend to drive overcautiously for much of a handover period extending up to 55 seconds. AXA would welcome further consideration from the UK Government of a robust protocol developed for effective handover in advance of automated vehicles being allowed to function freely on UK roads. Handover expectations must prioritise human safety above functionality.

10. Furthermore, AXA 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, these guidelines should be considered when assessing what constitutes a safe form of 'self-driving'.

Consultation Question 2 (Paragraph 4.115) We welcome views on whether self-driving features should be designed to ensure that they can be used by people with hearing loss.

11. Accessibility is one of the primary benefits of self-driving vehicles, providing a transport option for those currently disconnected from the road network. AXA believes that self-driving innovation must find ways to cater for all end-users, therefore there is a need for manufacturers and regulation to consider the use of multisensory warning alerts in all vehicles, including haptic signals.

CHAPTER 5: HOW SAFE IS SAFE ENOUGH?

Consultation Question 3 (Paragraph 5.118)
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?

12. AXA agrees that in principle the decision on whether a vehicle is safe enough to be acceptable is an issue that requires political judgement, transparency and accountability. The primary purpose of implementing this technology is for road safety gains i.e. to reduce the number of incidents and accidents on UK roads, therefore, automated vehicles need to be able to clearly demonstrate their road safety assurance. Technical assessment, international standards, testing, real world data and expertise will all be necessary components of building a case that a vehicle is safe enough. AXA agrees that regardless of the strength of the case for a vehicle, there will always be an element of risk which will need to be accepted. Furthermore, technical safety information needs to be applied to the UK landscape i.e. is a vehicle safe enough to be acceptable to the British public.

13. The balancing of risk should rightfully sit with the Secretary of State for Transport, as this is unequivocally a political decision that should be informed by expert guidance. The AEVA 2018 accounts for this and AXA believes this is the correct approach. It is critical that the Minister can and does consider the full range of expert information available to him. Therefore, AXA agrees that an independent specialist regulator should be integral to this process.

Consultation Question 4 (Paragraph 5.119)
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.

14. AXA considers it appropriate for an automated vehicle to be as safe as a competent and careful human driver while the vehicle is operating in a real-world environment, and therefore standards should be developed from that premise. It is important that there is a clear and quantifiable definition around what is considered 'a competent and careful human driver' that can steer manufacturers as they develop and deploy their technologies. Quantifying the definition in terms of incident frequency and severity rates could provide an important benchmark which can monitor performance of automated vehicles on an ongoing basis. Furthermore, in defining 'a competent and careful human driver' the standards should consider the in-built safety assistance technology available to current drivers.

15. The minimum standards for automated vehicles should be met through real-world testing and an ongoing requirement continually tacked to ensure real world outcomes are at least maintained above what is considered acceptably safe. Simulation, modelling and controlled testing is unlikely to be sufficient evidence to ensure road safety outcomes are maintained in the real-world environment.

16. AXA recognises that in some specific use cases this may not be always possible as referenced in paragraph 5.40 of the consultation document. For these areas it is necessary for relevant stakeholders to consider mitigations and the most appropriate means of communicating the limitations of an automated vehicle. Furthermore, human drivers and robotics will have different weaknesses which need to be considered when developing acceptable standards. For AXA, this underlines the reason for ensuring political judgement based on a wide range of expert guidance is part of the authorisation process and careful construction of the criteria for defining safe automation.

Consultation Question 5 (Paragraph 5.120)
We welcome observations on how automated vehicles can be made as safe as reasonably practicable.

17. Beyond the technological development of automated vehicles, technical assessment, international standards, testing, real world data and expertise will all be necessary components of building a case that a vehicle is safe enough. In particular, automated vehicles should undergo rigorous testing, including self-certification and a robust third-party testing regime, to ensure they meet acceptable standards before being authorised to be used on roads or other public places. It is a combination of all of the aforementioned components that can inform an approval regime to ensure vehicles are as safe as reasonably practicable. AXA recognises this will be an iterative process where an approval regime will need to evolve over time to reflect new technologies, more sophisticated testing regimes, simulation software and improved best practice guidance.

Consultation Question 6 (Paragraph 5.121)
We welcome practical suggestions for how AV regulators can fulfil their public sector equality duty

18. AXA is not best placed to provide practical suggestions on this question but would agree with reflections in paragraph 5.76 that an AV should be trained with a sufficient diversity of training data to be representative of those in operational design domain in which the vehicle would be used and all groups must enjoy a minimum level of safety. A further operational analysis on how best protected groups can be safeguarded from discrimination through the AV regulator will be necessary going forwards.

CHAPTER 7: ASSESSING SAFETY PRE-DEPLOYMENT

Consultation Question 7 (Paragraph 7.99)
We provisionally propose that:
(1) safety assessment should use a variety of techniques;
(2) manufacturers/developers should submit a safety case to regulators showing why they believe that the automated driving system is safe;
(3) regulators should:
(a) provide guidelines for what is in the safety case;
(b) audit the safety case;
(c) prepare guidance for manufacturers and developers on preferred standards; and
(d) carry out at least some independent tests. Do you agree?

19. AXA is in agreement with the provisional proposals outlined in question 7. The regulator should certainly be providing structured guidelines for manufacturers and developers on standards they consider to be minimum requirements for safety and best practice for manufacturers and developers in constructing adequate safety cases. AXA's experience during trials has been that safety case construction can be a complex process for manufacturers and developers, where there may be skills shortages. Measures, including best practice guidance, clear rules and training, would support the improved quality of safety cases for self-driving vehicles and ensure a more efficient audit for regulators.

Consultation Question 8 (Paragraph 7.100)
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.

20. AXA agrees that a mix of testing methods will be required, and independent third-party testing is a necessary element. The complexities of this new innovation mean a wide variety of testing scenarios will be necessary to validate the safety of the vehicle. AXA would encourage the Law Commission to consider some of the testing frameworks and programmes being created by academic partners as part of Centre for Connected and Autonomous Vehicles trials, such as Loughborough University. AXA understands the intention to consult road user groups, however, there would be concerns around the speed of this process and the size of the task to ensure all potential user groups have fair representation within these groups. Furthermore, AXA would want to avoid an outcome where user groups, have too much influence on this process. User groups are liable to provide biased opinion rather than facts which may not be conducive to providing a strong scenario database.

CHAPTER 8: INITIAL APPROVALS AND CATEGORISATION - PROPOSALS

Consultation Question 9 (Paragraph 8.17)
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?

21. AXA strongly agrees that considering the risks from autonomous driving, all autonomous driving systems (ADS) should require authorisation and those unauthorised should be prohibited. AXA also agrees with the exemption procedure that allows unauthorised systems to be used in tests and trials provided approved robust guidelines on trials and testing remain and guidelines are continued to be communicated effectively.

Consultation Question 10 (Paragraph 8.25)
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?

22. Mass produced vehicles are intended to be sold across borders; therefore, the international approval pathway will be a necessary choice for manufacturers. AXA agrees with the benefits outlined by the Law Commission of Great Britain establishing a national ADS approval scheme for vehicles within a localised context, particularly around creating an environment for new forms of Highly Automated Passenger Services (HARPS) to develop. Scheme standards and its process will need to be clear and unambiguous.

23. Further consideration should be given to whether manufacturers should have a free choice in applying for approval as this may incentivise manufacturers to choose the least taxing route to approval.

Consultation Question 11 (Paragraph 8.43)
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?

24. AXA is comfortable with the general approach outlined in question 11, provided there is a clear requirement for the approval to be accompanied by specifications for the types of vehicles into which it can be installed. The minimum current regulations will apply to these vehicles, and they should be of a higher safety standard than those applied currently to conventional vehicles, for example minimum requirements for lights and indictors could be

expanded to include automated lights and tyre pressure warning lights. AXA would urge further consideration of the retrospective fitment of automated driving systems, given the complex interactions that could take place between different makes and models. If the entire system is not integrated, there could be increase risks of an adverse interaction.

Consultation Question 12 (Paragraph 8.44)
We invite observations on the appeal process in regulation 19 of the Road Vehicles (Approval) Regulations 2020, including:
(1) how it works in practice;
(2) how well it is suited to the proposed national ADS approval scheme.

25. AXA considers the appeals process to be a reasonable suggestion for the national ADS approval scheme. Stakeholders involved will require the sufficient capabilities and resource in order to oversee the appeals process under regulation 19.

Consultation Question 13 (Paragraph 8.71)
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?

26. AXA agrees that every ADS should be backed by an automated driving system entity (ADSE) which takes responsibility for the safety of the system. Clear liability for accidents, breaches of traffic rules and continued compliance with type approval requirements is absolutely fundamental for the deployment of Connected and Automated Mobility. AXA agrees that the ADSE should be responsible for assessing safety and putting forward a safety case and should have appropriate financial standing to be held accountable by the regulator should things go wrong. Further assessment will need to be made on how 'sufficient funds' is defined in relation to potential regulatory sanctions. As outlined elsewhere in this consultation, the regulator should provide best practice guidance on safety cases to ensure a high quality and efficient process.

Consultation Question 14 (Paragraph 8.77)
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?

27. AXA is in agreement with the need for the legislation in AEVA 2018 to go further by providing regulation making powers to deal with the complex categorisation decision that needs to be made. Parliamentary oversight will be an important element of this process, given the significance of the regulation making powers it may be sensible for secondary legislation to be subject to the affirmative resolution procedure.

Consultation Question 15 (Paragraph 8.78)
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?

28. Yes, clearly outlined provisions for appeals against a categorisation decision is a necessary part of a transparent and fair process.

Consultation Question 16 (Paragraph 8.83)
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.

29. Yes, AXA does tentatively agree with this measure provided there are clear rules around limited deployment and minimum standards are met. A phased approach to safety assurance in specific operational design domains can be helpful for assessing safety and more logical for integration. This could be particularly helpful for reviewing licensed automated passenger services can operate safely in real world conditions. If limited deployment is allowed, the regulator would need to collaborate with local councils who represent local residents and can assess local needs, to ensure deployment in limited numbers works safely for all road users.

30. Ultimately, in the initial hybrid period of mixed driving on UK roads there is an argument to be made for focusing on promoting the adoption of these vehicles but monitoring the quality to ensure the deployment of automated vehicles maximises safety and consumers can trust the new technology. However, any limited deployment must be specific to the operational design domain and be supported by sufficient evidence.

CHAPTER 10: ASSURING SAFETY IN USE

Consultation Question 17 (Paragraph 10.82)
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?

31. AXA strongly agrees with the proposal to establish an assurance scheme for ADS following deployment. Oversight is necessary for the entire lifecycle of self-driving technologies,

particularly during the initial deployment of these vehicles. The safety of these vehicles under real world conditions is yet to be known and both technology and regulation will evolve, an automated vehicle may well comply with driving rules when approved but quickly become out of step with regulation in the years that follow.

Consultation Question 18 (Paragraph 10.83)
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?

32. AXA agrees with all responsibilities and powers outlined under question 18 as they will ensure ongoing safety of ADS systems and compliance with the law. If an automated vehicle relies on maps to ensure safety and compliance with the law, then it is absolutely necessary for the regulator to require an ADSE to ensure these maps remain up to date. Furthermore, without a minimum level of cyber-resilience, safe automation is not possible.

33. The likelihood for misconceptions around the capabilities of advanced driver assistance features is high. AXA has continually raised the need for a broad communication programme implemented by the Department for Transport, road authorities, manufacturers, insurers and other relevant stakeholders to continuously provide the appropriate information and education for consumers. It is particularly critical that marketing material provided by manufacturers clearly states the limitations of the technology and how the user will need to interact with the technology to use it safely. While we recognise other agencies are in place to carry out the regulation of consumer and marketing materials, ensuring users understand the limits of the system and their responsibilities will be safety critical. Therefore, we strongly agree with the proposal for the regulator to require an ADSE communicate information in a clear and effective way.

Consultation Question 19 (Paragraph 10.84)
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? No, they could include some major changes. Perhaps there could be a degree to allow this, but only basic upgrades, no fundamental changes
(2) Should the scheme should also deal with cybersecurity? Yes
(3) Are other powers needed? (Note that data is discussed in Chapter 17.)

34. AXA would have concerns about scheme regulators approving software updates that apply only within the UK in all cases, as there could be considerable changes within software updates. However, AXA understands the need for a degree of flexibility as some software

updates may be minor. A nuanced scheme may be necessary to enable minor updates that apply only within Great Britain to be approved by the UK scheme regulators but for fundamental changes to be returned to the original type approval. Further assessment of defining a 'major update' and how this would work in practice is necessary, including further engagement with the UNECE is necessary.

35. AXA is not best placed to determine where responsibility for cyber security should sit in the safety assurance scheme. However, cyber security is a fundamental component of the safety of an automated driving system and brings its own technical challenges. It may be necessary for a specialist unit to assess this element of safety assurance.

36. The regulator should also have additional powers such as withdrawing a vehicle from legal use on the roads due to safety concerns.

Consultation Question 20 (Paragraph 10.100)
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?

37. AXA believes both functions should be combined as a single body with the relevant expertise to ensure engagement across the entire life cycle of an automated vehicle. In our view, split responsibility could result in a lack of co-ordination. AXA understands the arguments made around potential 'regulatory capture' however, we believe regulatory capture could still be a challenge in both models, with a separate market surveillance authority reluctant to go against the original approval decision. Other mechanisms could be deployed to ensure regulators are open to wider views, and AXA believes formal duties to consult could be an adequate means of achieving this. Other entities have raised the challenges of combining functions currently split between the DVSA and the VCA while the technology is still in its infant stages. AXA believes the additional complexities posed by these vehicles increase the chance of issues slipping between the two bodies, but it may not be necessary to implement major structural change immediately but to develop a closer working relationship with the strategic objective of a single body being created in the near future.

Consultation Question 21 (Paragraph 10.101)
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)?

38. As outlined in the answer to question 21, formal duties to consult could be contained in the relevant terms of reference to ensure the scheme remains open to external views.

CHAPTER 11: INVESTIGATING TRAFFIC INFRACTIONS AND COLLISIONS

Consultation Question 22 (Paragraph 11.24)
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?

39. AXA agrees that the statutory scheme should investigate traffic infractions and if fault lies with the ADSE the police should refer the matter to the regulator for investigation. A flexible

range of regulatory sanctions will be necessary, including improvement notices, sufficient fines, recalls and withdrawal of authorisation. The current accident investigation process will need improved capabilities and training in order to do this sufficiently.

Consultation Question 23 (Paragraph 11.53)
We provisionally propose that the regulator which assures the safety of AVs in-use should have powers to impose the following sanctions on ADSEs:
(1) informal and formal warnings;
(2) fines;
(3) redress orders;
(4) compliance orders;
(5) suspension of authorisation;
(6) withdrawal of authorisation; and
(7) recommendation of attendance at a restorative conference. Do you agree? Yes

40. AXA agrees with all of the listed sanctions and the argument raised by the Law Commission that sanctions will need to change to account for the liability of an ADSE compared to a human driver. Regarding redress orders, further assessment will be needed on how redress or compliance orders will be enforced and whether in the interim vehicles could be used. A lack of roadworthiness could result in implications for insurance validity.

Consultation Question 24 (Paragraph 11.54)
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?

41. Allowing the regulator discretion of monetary penalties and the steps which should be taken to prevent re-occurrence of a breach is consistent with current legislation under the Regulatory Enforcement and Sanctions Act 2008. It also seems a reasonable approach to an area of technology where there will likely be uncertainties as it is initially deployed. Further analysis will need to be taken to understand how flexible discretion on monetary penalties can be reconciled with the approval requirement for an ADSE to have 'sufficient funds' to respond to regulatory action.

Consultation Question 25 (Paragraph 11.69)
We provisionally propose that a specialist incident investigation unit should be established:
(1) to analyse data on collisions involving automated vehicles;
(2) to investigate the most serious, complex or high-profile collisions; and
(3) to make recommendations to improve safety without allocating blame. Do you agree?

42. AXA strongly agrees that to ensure accidents involving advanced driver assistance systems or driving automation systems are investigated appropriately, it is imperative to establish a specialist investigation unit or to extend training and resource to existing roads policing officers. Given the high-profile nature of this technology, a specialist investigation unit would be preferred because it would have greater scope to develop expertise, make recommendations to improve future safety and promote a no-blame collaborative culture of safety. Furthermore, public attitudes to safety and compliance may be improved by the symbolic significance of a specialist unit, putting road transport in alignment with other sectors such as aviation and rail. AXA would welcome the inclusion of a specific responsibility for the specialist unit to share their incident reports with relevant stakeholders, including insurers.

43. In addition, AXA considers it important that any specialist investigation unit pays particular attention to repeated accidents, to ensure there is a vehicle for identifying potentially accident-prone components and avoid incidents.

Consultation Question 26 (Paragraph 11.82) & Consultation Question 27 (Paragraph 11.83)
We provisionally propose that the UK Government should establish a forum for collaboration on the application of road rules to self-driving vehicles. Do you agree? Yes
We welcome views on:
(1) the issues the forum should consider; What the vehicles are capable of, what they actually do, new technology
(2) the composition of the forum; and Technical and driver experienced members
(3) its processes for public engagement.

44. While the idealist vision of automated vehicles is for them to abide by current road rules at all times, AXA recognises that applying strict inflexible road rules for artificial intelligence decision-making in all scenarios may be counterproductive for road safety outcomes. There are certain applications of road rules AXA considers to be clear in terms of road safety in the overwhelming majority of cases, such as not exceeding speed limits within current acceptable tolerances and not mounting the pavement at speed. However, other areas are far more complex which require further work to deem what the UK could consider as 'acceptable'. AXA agrees with the proposal that the UK Government should establish a forum for collaboration on the application of road rules to self-driving vehicles, a collaborative culture with effectively communicated outputs would be beneficial for public engagement and trust in this new technology. Any forum must involve a wide range of opinion including road safety and legal experts, manufacturers, representatives of vulnerable road users, insurers and behavioural scientists. Public forums, consultation and clear communication of agreed outputs would be a sound basis for public engagement.

CHAPTER 12: THE USER-IN-CHARGE

Consultation Question 28 (Paragraph 12.24)
We provisionally propose that that the user-in-charge:
(1) should be defined as an individual in position to operate the controls of a vehicle while an ADS is engaged and who is either in the vehicle or in direct sight of the vehicle; and
(2) is not a driver while the ADS is engaged, and would not be liable for any criminal offence or civil penalty (such as a parking ticket) which arises out of dynamic driving. Do you agree? (1) Yes, (2) only if the user in charge could not change any errors committed when the ADS was engaged.

45. AXA agrees that the user-in-charge should be defined as an individual in position to operate the controls of a vehicle while an ADS is engaged and who is either in the vehicle or in direct sight of the vehicle. However, being 'in direct sight of the vehicle' needs to be defined clearly and emphasis must be placed on the user-in-charge's ability to take over should the vehicle experience difficulties. For example, a lower speed limit may be necessary for manoeuvres where a person is outside of the vehicle.

46. While AXA agrees in principle with point two. In some scenarios, the user-in-charge could not only recognise a vehicle is about to perform a civil offence but actively participate in it occurring. For example, paragraph 12.14 refers to a mobile phone app which could park a vehicle automatically, if the user is determining the space in which the vehicle should park itself, it would seem more appropriate to apportion blame on the user-in-charge rather than

the vehicle. Proposal two may need further assessment to ensure there are no loopholes where it would be reasonable for the user-in-charge to act responsibly to prevent a criminal or civil offence. Furthermore, point 2 does not address the issues the issue of user-in-charge liability in a case where he or she tries or succeeds to modify the ADS.

Consultation Question 29 (Paragraph 12.37)
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?

47. AXA agrees in principle with the proposal that a user-in-charge should re-acquire the legal obligations of a driver at the end of the transition demand period, this would provide necessary clarity in the responsibilities of a user-in-charge. However, it may be appropriate to assess whether there should be any criminal offence exemptions for those failing to respond to a transition demand, for example if the user-in-charge was to have a proven health emergency that prevented him/her from taking back control of the vehicle.

48. The operation of this proposal in practice is heavily dependent on the appropriateness of transition demand requests and the minimum risk manoeuvre. For example, as outlined elsewhere, AXA remains concerned about the minimum 10 seconds response time requirement put forward by the Department for Transport related to ALKS technology. While AXA is aware that the UN ALKS Regulation specifies that 'A transition demand shall not endanger the safety of the vehicle occupants or other road users' (Reg 5.1.4), it remains distinctly possible that an ALKS vehicle could force a transition demand that would endanger a driver unable to take back control of their driving responsibilities within ten seconds. This issue could be equally seen in an SAE Level 4 vehicle, further analysis and testing are necessary around what is deemed acceptable for a transition demand request, to ensure we have a minimum standard that places a priority on safety in all road and weather conditions.

49. Furthermore, transition demands become far more problematic if the technology cannot perform a safe Minimum Risk Manoeuvre. For example, under the current proposed approach, an ALKS performing a Minimum Risk Manoeuvre may stop in a live traffic lane if a user-in-charge does not respond to a transition demand. While we appreciate the technology will evolve over time, to consider this an appropriate fall back for an automated vehicle at any stage of deployment would be a mistake which could deride public trust in these vehicles. AXA strongly believes that there should be strong emphasis placed on the safeness of a Minimum Risk Manoeuvre during the authorisation of these vehicles.

50. Further consideration should be made on whether this proposal is both practical and enforceable.

Consultation Question 30 (Paragraph 12.45)
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.

51. In principle, AXA believes it would be appropriate provided the user-in-charge is accompanied by an approved driving instructor for vehicles with dual controls. This will

eventually be a necessary step for ensuring novice drivers receive the training and education they need to use automated vehicles safely. However, consideration will need to be made on the timeframes of implementing this type of measure to ensure safety for provisional drivers is maximised and training as a user-in-charge is worthwhile.

52. In the near future, the UK Government should assess how best to categorise an automated vehicle on UK driving licences and review what measures are needed to ensure there is sufficient training for novice and existing drivers for automated vehicles.

Consultation Question 31 (Paragraph 12.53)
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?

53. AXA agrees with the proposals listed in question 31, the new offences will need to be sufficiently robust and well-defined.

Consultation Question 32 (Paragraph 12.59) & Consultation Question 33 (Paragraph 12.60)
We provisionally propose that persons carried without a user-in-charge should be guilty of a criminal offence. Do you agree?
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.

54. In principle, AXA agrees with the proposal that persons carried without a user-in-charge should be guilty of a criminal offence. However, AXA understands the comments surrounding adding a mental element to the offence to exclude such cases where the individual may have no knowledge there was no user-in-charge as outlined in paragraph 12.55. It may indeed be appropriate to ensure this criminal offence applies to those who 'knew or ought to have known' that a user-in-charge is required. AXA would welcome further assessment of those cases where an exclusion may be necessary.

Consultation Question 34 (Paragraph 12.66)
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.

55. AXA agrees in principle with this proposal; however, this defence would have to be able to be supported by sufficient evidence including specific AV data. Otherwise, AXA would be concerned that this defence is open to abuse from dishonest users.

Consultation Question 35 (Paragraph 12.94)
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?

56. AXA agrees with all the above proposals, the current law relating to non-automated vehicles should still apply in relation to the user-in-charge. However, AXA is aware of existing technology which would enable self-parking out of the line of sight of the user-in-charge. In such cases, if an issue related to parking arose, it may be appropriate to explore where the liability rests, especially if this was to result from any problems relating to the software or with the parking infrastructure itself.

57. Furthermore, AXA would also welcome the inclusion of two additional areas 1) exceeding the designed number of passengers in the vehicle and 2) ensuring a child is strapped into child safety seats.

Consultation Question 36 (Paragraph 12.95)
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?

58. AXA accepts that roadworthiness standards will likely change as the technology develops, therefore it is appropriate to include a regulation-making power to clarify the full list of roadworthiness conditions that are the responsibility of the user-in-charge.

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

Consultation Question 37 (Paragraph 13.67)
We provisionally propose that:
(1) where an individual is exercising latitudinal and longitudinal control (steering and braking) over a vehicle remotely, that should not be regarded as a form of "self-driving"; and
(2) where lateral and longitudinal control are exercised by an ADS, all other forms of remote operation should be regulated as "self-driving". Do you agree? (1) Yes (2),
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".

59. Yes, AXA strongly agrees that where an individual is exercising latitudinal and longitudinal control remotely this should not be regarded as a form of "self-driving". AXA further understands the importance of ensuring a regulatory gap is not created for other forms of remote operation and that corporate responsibility takes precedence over individual responsibility where appropriate. AXA believes further assessment is required on the definition of 'monitoring' and the responsibilities for a remote assistant, for example would they be required to intervene for the purposes of road safety, and if so, how would liability apply in the event of an incident. Greater emphasis should be placed on the actions involved

in remote monitoring the automated vehicle to determine whether it is indeed appropriate to take forward this proposal.

60. In principle, AXA agrees with the need to adjust the definition of when a vehicle "drives itself" under the AEVA 2018 to ensure it includes very specific forms of remote operation to enable those use cases to be regulated appropriately. As outlined above, further assessment is required on what constitutes 'remote monitoring'. Furthermore, there must always remain a clear distinction between 'monitoring from a remote location' and 'monitoring while inside the vehicle or in sight of the vehicle'.

Consultation Question 38 (Paragraph 13.86)
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?

61. AXA agrees with the proposals listed in question 38 and the intentions to streamline this scheme for vehicles used for private or business purposes, and whether or not they carry passengers. The approach has the advantage of ensuring the complex tasks related to supervision and maintenance is conducted by a body with sufficient expertise. Legislation will need to be sufficiently robust to define these proposals and will need to be supported criminal sanctions that reflect the safety risks of failing to comply.

Consultation Question 39 (Paragraph 13.92)
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.

62. AXA agrees that Non-User-in-Charge (NUIC) operators should evidence they demonstrate professional competence. In the formative years of deployment, a safety management system is a suitable way in which to evidence competence in a field requiring a diverse range of skills, including those beyond current transport management skills. Going forwards it may be necessary to develop a suitable Certificate of Professional Competence for NUIC operators which can include old and new transport management skills. Third party certification is an efficient approach to competence which can provide certifiable evidence of the competence of an individual. Furthermore, demonstration of competence should be subject to a periodical review and renewal.

Consultation Question 40 (Paragraph 13.108) & Consultation Question 41 (Paragraph 13.109)
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?
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?

63. AXA agrees a licensed operator should be obliged to comply with the duties listed under question 40 and agrees with the Law Commission's intentions to extend the duty of all drivers under section 170 of the Road Traffic Act 1988 to include responding to the regulator's requests for information on other untoward events. AXA would expect most 'untoward' incidents to be automatically captured by the ADS and transferred to relevant third parties, however, there will be some cases in which reporting untoward events proves more difficult. There will need to be flexibility in how this regulation develops. Furthermore, AXA considers it to be appropriate for the licensed operator to also report untoward events not directly linked to the driving task, including any illegal passenger behaviour.

64. Including a regulation-making power which would allow some of these duties to be transferred to the registered owner would be acceptable provided the regulatory framework makes the responsibilities clear for both the licensed operator and registered keeper and the timeframe when it would be appropriate for duties to be transferred.

Consultation Question 42 (Paragraph 13.116)
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. Yes, but concerned that some people who do not fall into the older people category would be excluded. Twice yearly is enough if they get it right first time.

65. AXA agrees with the need for accessibility standards for HARPS, but other organisations are better placed to provide guidance on their development.

Consultation Question 43 (Paragraph 13.133)
We welcome views on who should administer the operator licensing scheme.

66. AXA believes that the current structure of licensing authorities would be suitable to administer the system of operator licensing. However, as we outlined in our response to Consultation 2, it may be workable to establish a collaborative approach whereby the agency responsible for authorising automated driving systems works co-operatively with the current structure of Traffic Commissioners could provide greater expertise of automated driving systems whilst ensuring there is a single point of contact for the operator.

CHAPTER 14: CRIMINAL OFFENCES BY ADSES AND THEIR SENIOR MANAGERS

Consultation Question 44 (Paragraph 14.107)
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?

67. AXA agrees with the proposals listed under question 44 but does not believe that the legal framework should necessarily treat two people differently based on seniority for the same criminal offence where it was attributable to consent, connivance or neglect. This would be consistent with other industries in which negligent acts can cause serious harm or death e.g. pharmaceutical sector.

Consultation Question 45 (Paragraph 14.108)
We seek views on the following proposed offences.
Offence A: non-disclosure and misleading information in the safety case When putting forward a vehicle for classification as self-driving, it would be a criminal offence for the ADSE to
(1) fail to provide information to the regulator; or
(2) provide information to the regulator that is false or misleading in a material particular where that information is relevant to the evaluation of the safety of the ADS or the vehicle. The ADSE would have a defence if it could show that it took reasonable precautions and exercised all due diligence to prevent the wrongdoing. The penalty would be an unlimited fine.

Offence B: non-disclosure and misleading information in responding to requests When a regulator requests specific information from an ADSE (whether before or after deployment), it would be a criminal offence for the ADSE to
(1) fail to provide information to the regulator; or
(2) provide information to the regulator that is false or misleading in a material particular where that information is relevant to the evaluation of the safety of the ADS or the vehicle.
The ADSE would have a defence if it could show that it took reasonable precautions and exercised all due diligence to prevent the wrongdoing. The penalty would be an unlimited fine.

Offence C: offences by senior management Where offence A and/or offence B committed by a body corporate is proved—
(3) to have been committed with the consent or connivance of an officer of the body corporate; or
(4) to be attributable to neglect on the part of an officer of the body corporate, then that officer is guilty of the offence.
An officer includes any director, manager, secretary or other similar officer or any person who was purporting to act in any such capacity. We see this as equivalent to offences under the Human Medicines Regulations 2012 and General Product Safety Regulations 2005, which carry a penalty of a fine and/or a maximum two years' imprisonment.

Offence D: aggravated offences in the event of death or serious injury following non-disclosure or provision of misleading information to the AV safety regulator Where a corporation or person commits Offences A to C, that offence is aggravated where the misrepresentation or non-disclosure:
(5) related to an increased risk of a type of adverse incident; and
(6) an adverse incident of that type occurred; and
(7) the adverse incident caused a death or serious injury.
We see this as equivalent to the offence of causing death by dangerous driving, which carries a penalty of an unlimited fine and/or a maximum of 14 years' imprisonment.

68. Other organisations are better placed to comment on the sanctions for specific criminal offences.

Consultation Question 46 (Paragraph 14.109) Yes, agreed
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.

69. AXA strongly agrees with this duty, it is important for clarity, accessibility and efficiency for ADSEs to present safety-critical information appropriately. It is important that the regulator does provide clear guidance and support on how information should be presented by ADSEs.

CHAPTER 15: NEW WRONGFUL INTERFERENCE OFFENCES

Consultation Question 47 (Paragraph 15.10)
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?

70. Yes, AXA agrees that a legislative amendment is needed to clarify wrongful interference and to act as a deterrent. The legislative amendment must encompass all forms of mischievous behaviours including cyber security attacks of software by users.

Consultation Question 48 (Paragraph 15.11)
We welcome views on whether the tampering offence should apply to external infrastructure required for the operation of the AV.

71. Yes, automated vehicles are reliant on external infrastructure for their safe operation. It is important that external infrastructure is protected as if it is a physical part of the vehicle, remaining consistent with similar offences for railway infrastructure.

Consultation Question 49 (Paragraph 15.53) & Consultation Question 50 (Paragraph 15.55)
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?
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?

72. Yes, AXA agrees with the proposal listed under question 49 and question 50.

Consultation Question 51 (Paragraph 15.62)
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.
Yes, imperative for safety

73. AXA is not best placed to comment on the interpretation of Section 22A and its application to automated vehicles, however, AXA agrees with the intention to protect bona fide repair or maintenance operations.

CHAPTER 16: CIVIL LIABILITY

Consultation Question 52 (Paragraph 16.24)
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?

74. Yes, AXA agrees that AEVA 2018 adequately deals with contributory negligence at this stage of the development of automated vehicles and shares the Government's objective of making it as easy as possible for consumers to understand the cover they need and ensure injured parties can have their claims settled as quickly as possible. The sections on contributory negligence are clear and we believe they will work in practice. However, AXA has always viewed AEVA 2018 as the first major step towards an insurance framework that is conducive to the roll-out and uptake of automated driving systems. Further changes will likely be necessary as technology develops and becomes common place. Furthermore, AXA believes that the insurance industry will be in a better position to determine how well the contributory negligence provisions of the Act work in practice once there is exposure to automated vehicles claims.

75. AXA agrees with the ABI and Thatcham Research that causation in relation to AEVA 2018 is an area that we believe required further guidance. There remains considerable uncertainty which may result in difficulties for insurers to price accurately to reflect risks they will be liable for. Although we appreciate case law will inevitably be needed, the clearer the definitions are on causation, the easier the legal process will be going forwards. AXA would be supportive of an analysis of potential automated vehicles accident scenarios before these vehicles are deployed to understand likely liability outcomes.

76. The UK Government should certainly review the provisions of the Act at set intervals during the deployment of this technology.

Consultation Question 53 (Paragraph 16.32)
We provisionally propose that measures should be put in place to compensate the victims of accidents caused by uninsured AVs.
Do you agree? Yes, but funded by the OEM's and designers

77. AXA agrees that measures should be put in place to compensate the victims of accidents caused by uninsured automated vehicles. Protection for victims of accidents caused by uninsured vehicles is an important aspect of the UK's road framework and must be continued for self-driving technologies. Under the current framework, the Motor Insurers' Bureau (MIB) will inevitably have to deal with uninsured/untraced driver claims and will also require additional rights of recovery where detective technology is established as the cause. Furthermore, there may be additional issues related to scenarios in which a motor insurer has grounds to void cover e.g. the automated vehicle has been materially modified in a manner not notified to the insurer. Given the clear differences in the technology and the regulatory framework surrounding them, the likelihood of uninsured automated vehicles should be smaller than a conventional vehicle. Nonetheless, Government should assess whether it may be appropriate for insurers and manufacturers to collaborate on the issue of uninsured automated vehicles and how best the MIB can be supported in their role, particularly where automated and non-automated vehicles are driven in the same operational domain.

Consultation Question 54 (Paragraph 16.47)
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?

78. While a review of product liability law may not be essential for the deployment of automated vehicles, AXA is supportive of a review in how product liability law takes account of the challenges of emerging technologies. The Consumer Protection Act 1987 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. Furthermore, the current Act 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 defective may restrict an insurer's ability to claim against those involved in the development of an ADS. It may be sensible to assess whether the burden of proof should be reversed to encourage manufacturers to share relevant vehicle data.

CHAPTER 17: ACCESS TO DATA

Consultation Question 55 (Paragraph 17.65), Consultation Question 56 (Paragraph 17.71) & Consultation Question 57 (Paragraph 17.81)
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?
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 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 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?

79. AXA has long called for further focus on the issues surrounding the access, storage and processing of data. From an insurer's perspective the availability of vehicle data is critical for establishing liability in the event of an accident to ensure claims can be processed effectively and those affected can receive the settlements they are due. If insurers are unable to access this data, the provisions of the Automated and Electric Vehicles Act 2018 will be unworkable in practice. The current regulatory gap regarding data standards and access to in-vehicle data must be addressed if the Government wants to harness the benefits of new transport technologies.

80. AXA agrees with the overwhelming majority of the provisional proposals outlined by the Law Commission, particularly the proposal that legislation should impose a duty on those controlling automated vehicles data to disclose data to insurers, where the data is necessary to decide claims fairly and accurately. For liability disputes to be fairly resolved, the insurance industry has continuously stated that data must be equally and equitably accessible to the manufacturer and insurer to enable a speedy review of whether the driver or vehicle was in control at the time of an incident. Moreover, if insurers are unable to access vehicle data it will ultimately be detrimental to the insured, as claims management will be less effective and more expensive.

81. A specific and limited data set should be accessible for insurers following every incident, without charge, built up via data recording systems that provide sufficient information to assess liability disputes. As discussed in Thatcham Research's report *Defining Safe Automated Driving*, the 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. It should be emphasised that insurers need access to raw data so they can match data sets related to individual electronic components from the vehicle. As outlined by the ABI and Thatcham Research, this data would likely become available within a central repository i.e. a neutral server for shared accident data.

82. Access to raw data is an important component to encourage transparency on the part of the data owner, however, it is not the only part. AXA would also like to see specific provisions placed in legislation to ensure the data owner is responsible for providing an insurers claims department with an intelligible written report that sets out when the incident took place and the sequence of events of autonomy, including a record of driver intervention and any transition demands. AXA believes this provision will reduce the investigation times of claims and will create an effective and straightforward claims process for users involved in incidents. This measure would be reflective of the clear responsibility manufacturers have to ensure incidents involving their vehicles are dealt with as efficiently as possible. If insurers were required to transfer detailed raw data into an intelligible sequence of events, specialist teams will likely be required. This measure would place the burden on insurers to interpret data in order to protect consumers' interests.

83. With regard to retaining data, AXA has some concerns with the proposal of a three-year retention period. While three years is a good starting point, data may need to be held for longer. Some symptoms from certain injuries common in road traffic accidents, like whiplash, can persist or worsen over a period of years.

84. There have been a number of papers constructed on minimum standards for data-sharing, privacy and provision in the automated vehicle environment that look to address these concerns such as the Insurance & Legal Report published by AXA UK and Burges Salmon LLP for the FLOURISH consortium and Defining Safe Automated Driving by Thatcham Research and the Association of British Insurers. In the former, AXA and Burges Salmon outlined a list of best practice principles for protecting data in the CAV sector including ensuring there is accountability at board-level, identifying a lawful basis of processing, building privacy by design and following best practice guidance on cyber security. Developing clear guidance on the management of data will be essential as automated technology becomes commercially available on UK roads. AXA welcomes the proposal to ensure the ADSE presents the regulator with clear details on how data will be recorded, stored, accessed and protected within their safety case and the regulator should consider obligations under the GDPR before categorising a system as self-driving.

85. AXA has continually urged government to place greater focus on the data and connected element of automated technology. One approach that could support further collaboration in this area is the creation of a 'data map' to identify clearly who needs to access data, what type of data and when. Far reaching analysis into data requirements and ensuring the data is processed, stored and protected appropriately is needed.

If you need to get in touch regarding the information in this submission, please get in touch with AXA UK Public Affairs at ukpublicaffairs@axa-uk.co.uk