DAC Beachcroft LLP – Written evidence (AUV0067)

About Us

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We partner with our clients to help them achieve sustainable growth and to defend their business and reputation. We do this by taking a tailored approach to providing commercial, transactional, claims, risk and advisory legal services.

We are recognised leaders in Insurance, Health and Real Estate and draw on the knowledge, industry experience and commercial expertise of our outstanding 2,200 lawyers and support colleagues in these sectors and beyond.

We are forward-thinking, flexible and easy to engage with and we're proud that our clients tell us regularly that we're great to work with.

We know that our clients value advice that is innovative, practical and personal to them, and we pride ourselves on getting to the heart of their businesses. We measure our performance against their expectations and embrace change as a necessary stage in evolving and strengthening our relationships.

The close working relationship we enjoy with our clients has not been built overnight but honed carefully over the last 250 years. This means today our clients can remain confident they have the very best legal expertise available.

Preamble

1. We feel it is important to make a clear distinction between Advanced Driver Assistance Systems (ADAS) and Autonomous Vehicle Technologies (AVT). The technologies expected to reach the market in the next 2 to 4 years are all forms of ADAS. These systems provide the driver with “assistance”, but do not “control” the driving task. In short, they will still require the driver to be driving “in-the-loop” at all times. Drivers need a clear understanding of what is expected of them and must not be misled into thinking their car can ‘drive itself’ when it cannot.

2. The development of ADAS and AVT will be incremental by nature, and full automation remains some years away. However, the work that this committee is undertaking is important for two reasons. First, it is laying the groundwork for the smooth development and integration of autonomous vehicles (AVs). Second, several aspects of the work are relevant to ADAS-equipped vehicles, especially issues of cybersecurity.
3. It is in the spirit of welcoming the work done by this committee that DAC Beachcroft LLP is delighted to respond to those questions posed where we are able to provide meaningful comment.

4. At the outset and as an overview, we applaud the UK Government’s ambition in seeking to lead the world in developing AVT. The opportunities for the UK in doing so, in terms of inward investment, are obvious. The recognition that the complex regulatory environment in which such technology will operate must be as enabling and flexible as can be consistent with the overall aims of safe development is also very important.

Creating an enabling environment – Real world operation

10. Will successful deployment of autonomous vehicles require changes to digital or physical infrastructure?

5. Deployment of AVs will require significant changes to digital and physical infrastructure.

6. The recent DfT consultation made reference to the 'Connected Corridor' which uses different connection types -- LTE, local WiFi hotspots, LTE-V and DSRC -- that could be built into cars and roadside infrastructure such as traffic lights and overhead gantries. These are roadside elements that will play a vital role in the development of both vehicle to vehicle (V2V) and AV technologies.

7. The Connected Corridor proves how important infrastructure improvements will be in deploying AVs. It is our contention that for AVs to work across the country, significant investment in internet connectivity will be required.

8. There are many parts of the UK that presently lack the necessary internet connectivity to use AVs, which need to be able to communicate with both other AVs and with infrastructural elements. To make AVs available outside urban centres, a great deal of digital and physical infrastructure changes will be necessary: digital in the form of expanding adequate access; and physical in the means by which that access is granted (wires, towers, servers, etc). These infrastructure requirements will be necessary to implement the further changes that will come in the form of connected traffic lights and overhead gantries.

9. We are concerned about the interactions between AVs and human driven (conventional) vehicles (including those with ADAS). These concerns are especially acute when considering the concept of AV HGV platooning, which could result in catastrophic outcomes should something go wrong. Because of this, in our response to the DfT consultation we recommended that AVs, at least HGV ones, be limited to special AVT-only lanes (similar to bus lanes). This would require a significant alteration of the road network.
10. As AVs become more widespread, we envisage the potential need for further infrastructural changes in the form of alteration to parking spaces, car parks and garages. By storing vehicles at a higher density in areas of low land value, landowners would be able to free up large volumes of more valuable land for development, and the resulting changes to urban landscapes. Equally it would mean the need for more expansive drop-off and pick-up zones, bringing with it management issues akin to those currently experienced at busy airports and railway stations. Car sharing could also require rethinking the role of public transportation and the infrastructure that accompanies that. However, as these potential changes are many years away, we see little merit in doing more than pointing them out at this stage and commenting that infrastructural development will be an ongoing process accompanying the changing nature of AVs.

12. Does the Government have an effective approach on data and cybersecurity in this sector?

Data

11. Data-recording is an important consideration. It is vital that telematics is uniformly formatted such that it can easily be used in a court of law. Consideration should be given to a standardised data set; who owns the data; and any issues (e.g. human rights) to consider regarding data usage.

12. Access to data will play a vital role and provision should be made for data sharing between manufacturers and insurers. In the current ADAS market and in the near future, where many features will be optional rather than standard fit, it will be important for insurers to have information about the options fitted to a particular vehicle, to enable them to reflect these developments in the competitive pricing of the insurance product. Information on vehicle usage and accident data should also be readily available to insurers, to enable all concerned to deal with issues of fault. A general climate of sharing data and information in this way will help to encourage collaboration, risk sharing and innovation in product and service delivery for the benefit of the consumer.

Cybersecurity

13. Modern vehicles are becoming increasingly connected to the internet. In 2015, Chrysler Fiat (USA) recalled over 1.4 million vehicles only after the technology journal Wired invited hackers to take over a Jeep via their laptop computer. The hackers stated that Chrysler Fiat knew of the security deficiencies and failed to issue the recall until they were made public. And just last month, Chinese hackers claimed they were able to gain control of a significant portion of a Tesla's controls from 12 miles away, again with a laptop.
14. These incidents took place in ADAS-equipped vehicles. AVs will be even more at risk of hacking because they will be reliant on the internet for everyday use. It is imperative that consumers feel confident that they can use their vehicles safely and with minimal threat of hacking. The UK government will need to have a policy in place that requires manufacturers (of both AVs and the infrastructural components) to provide the best possible security for their products.

15. Additionally, the UK government will need to ensure that consumers who embrace this emerging technology do not suffer unnecessarily because of it. In short, innocent victims of hacking should be able to recover fully any damages they have suffered due to a hacking incident. To protect consumers, insurers need to pick up innocent party claims regardless of hacking, subject to a right of recovery against the vehicle manufacturer (VM) and/or systems manufacturer and/or software manufacturer. Considerable thought is needed as to whether this should exclude coverage for terrorism.

16. The current protection of certain interests against terrorism risks via Pool Re is not an acceptable means of providing coverage for hacking of AVs by terrorists for several reasons. First, Pool Re excludes damage caused by hacking from its terrorism cover. Second, it specifically covers only damage to commercial property and does not extend to life or personal injury. Finally, it does not cover any property covered under a motor policy. The new Terrorism Insure also seems inadequate to deal with the potential, unique threats that hacking of AVs presents.

17. We are strongly of the opinion that use of AVs as a weapon by terrorists and the related rights of innocent parties and insurers' rights of recovery will have to be addressed in forthcoming regulations.

13. Are further revisions needed to insurance, regulation and legislation in the UK to create an enabling environment for autonomous vehicles?

Insurance

18. We agree strongly that third party liability for harm caused by the car, when operating in autonomous mode, must be included within the extended scope of compulsory motor insurance required by the Road Traffic Act 1988.

19. However, the current law and insurance practice in relation to “product liability” cover makes this model unsuitable for delivery of the UK Government’s stated objectives, in particular the continued full protection of external (third party) road users which now extends to protecting the “not at fault” automated vehicle ‘driver’ (whether or not they can be properly said to be ‘driving’).

20. It is unarguable that the ‘use’ of vehicles must continue to be covered by compulsory insurance and that insurance claims should continue to be handled quickly so that
there is certainty in the market and so that victims of road traffic accidents have easy access to appropriate compensation in the event of loss or injury. We therefore support the UK Government’s stated policy objectives1 of:

a. extending the compulsory insurance requirements for automated vehicles
b. providing cover for the “not at fault” driver as well as passengers and (external) third parties
c. developing a system of classification for identification of automated vehicles which will require the extended cover to be in place.

21. These goals can best be achieved by requiring the extension of existing compulsory motor insurance legislation and terms and conditions (maintaining the approach that consumers can buy a single policy to cover all needs) and by creating associated statutory rights of recovery. Only in this way can all the questions of risk and recovery raised by compensating victims of a road traffic accident involving an automated vehicle be fully addressed.

22. In our view, it is too simplistic to stretch the existing product liability insurance model, for several reasons:

a. There is no legal requirement to provide or purchase product liability cover. Manufacturers and suppliers can choose to defray risks as they wish, through insurance or otherwise.
b. The terms of product liability insurance policies are not controlled in the same way as for road traffic policies. By statute, motor insurance cover for personal injuries has to be unlimited, whereas the cover provided by a product liability policy may have defined limits. It would be wholly unfair if the level of recovery by an injured victim was to be dictated by the type of insurance in place rather than by the severity of losses he or she sustained.
c. The long stop cut off for product liability claims. An amendment to the Limitation Act 1980 sets this at ten years: “An action to which this section applies shall not be brought after the expiration of the period of ten years from the relevant time”. [The relevant time being when the product was first put into circulation.] Simply importing all elements from the product liability field into the sphere of motor insurance so as to deal with autonomous vehicles would therefore produce the unacceptable outcome that claims associated with any autonomous vehicle more than ten years old would be legally barred.
d. The law underpinning product liability does not cover damage to the product which is caused by the product, per section 5(2) of the Consumer Protection Act 1987. In the context of autonomous vehicles, this may be a difficult concept depending on how the damage to the vehicle is to be treated. If one regards the disengaged driver as wholly ‘innocent’ when the vehicle goes wrong (in autonomous mode) then why should the driver/owner not be able

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1 See paragraph 2.9 of the DfT consultation.
to recover for what could be regarded as third party damage to his or her car (even if it is actually caused by the car?) It may be that cover for one's own vehicle (often referred to as comprehensive insurance) is treated in many cases as an optional element (ie not part of the compulsory insurance required by road traffic legislation), but where someone relies on their vehicle for employment or other essential activities, they may feel unfairly penalised if they lost their mobility as a result of an accident that was not their fault but that was caused by the car.

e. *Vnuk*. This European Court of Justice (ECJ) case requires that the regime for compulsory motor insurance set out in the Directives should be interpreted as covering “any use of a vehicle that is consistent with the normal function of that vehicle”. As the normal function of an autonomous vehicle includes self-driving, the decision in *Vnuk* would appear to point to a motor - not a product liability - policy being a necessary legal requirement.

23. For the reasons above, we suggest that it would be more proportionate to extend the scope of compulsory motor insurance to include autonomous driving than it would be to alter dramatically current law and practice applying to the product liability insurance market.

24. An extension of existing compulsory insurance obligations under a single motor policy, rather than devising a system under which a vehicle owner or user has to have in place both motor insurance and product liability insurance, would, in our view, promote relative simplicity of regulation, new product development and distribution & sale to drivers to a far greater extent that the potential complexity of merging motor insurance and product liability insurance law and market practice.

**Regulation**

25. In response to question 12 above we have outlined that regulations are required to deal with the rights of innocent parties and insurers in the event of an AV being used as a weapon by terrorists.

**Legislation**

26. Legislation will be necessary to extend existing compulsory insurance obligations under a single motor policy to provide adequate product liability coverage, taking into consideration the deficiencies of current product liability law as outlined above.

**14. What, if any, ethical issues need to be addressed in the substitution of human judgement in the control of vehicles by algorithms and Artificial Intelligence?**

27. The development of AVT is absolutely dependent on fostering public trust and confidence in the technology to the point that there is an adequate customer base to make the product viable. To achieve this, manufacturers need to highlight the safety
features that potential customers will enjoy.

28. From a practical perspective, the ethical side of this question may be moot if AV manufacturers follow Mercedes-Benz's example of putting the safety of passengers foremost in the programming. Commercially, this approach is not surprising, as potential customers are unlikely to purchase vehicles that do not place their protection above that of all others.

29. However, we feel it is incumbent upon us to answer this question from an insurance perspective. The problem is that AVs will have to be programmed to replace human judgement, and that this programming may result in injury (including death), loss and damage.

30. When an AV makes a judgement decision it is simply doing what it has been programmed to do – the manufacturer is responsible for that programming. The question that must be addressed is how this affects the relationship between the manufacturer, the customer and the insurer.

31. Many of the statements currently being made on this subject are little more than articulations of either a theoretical concept or even of a market positioning. Safety of all road users is an essential and unarguable priority: no one will gain if use of this technology fails to keep all road users safe.

Creating an enabling environment – Wider governance

15. What does the proposed Modern Transport Bill need to deliver?

32. Regulation should act as an 'enabler', whilst ensuring the safe development and implementation of new technologies. To achieve this, it will be vital to educate consumers as to the fundamental difference between ADAS and AVT, the former requiring the driver to remain 'in-the-loop' and providing assistance to the driver rather than assuming control of the vehicle.

33. The development of ADAS and AVT will be incremental by nature, and full automation remains some years away. Imposing too much regulatory change now may stifle innovation, and may result in vehicle and systems manufacturers looking to develop elsewhere, other than the UK.

34. Any additional regulation should be decided and implemented in a proportionate manner, so that the net gains of autonomous driving can be realised in full. This approach will also allow future regulatory changes to be based on experience and reflection (both from within the UK and elsewhere) as the 'close to market' technologies of today are tested and performance is analysed.

35. Additionally, deployment of AVs into the marketplace will require substantial
changes to the infrastructure, and the Bill will need to create the framework by which this will take place.

36. The Modern Transport Bill will serve as the first of many to come to facilitate the development and implementation of AVT, and needs to be seen as such. It needs to provide a framework by which this technology can successfully grow but also must refrain from implementing far-reaching restrictions that could limit growth. This is a fast-growing and evolving area of technological development, and the Bill must reflect that.

17. Is the Government’s strategy and work in this area sufficiently wide-reaching? Does it take into account the opportunities that autonomous vehicles offer in a wide range of areas, not just on the road?

37. We see the UK Government’s strategy and work in this area as providing opportunities outside AVs, particularly in reference to modernising cities, diversifying the British economy through the Northern Powerhouse and contributing to London’s plans for its future development.

Northern Powerhouse

38. For northern cities to become as productive as those of the southeast, it will be necessary for them to focus on maximising the effect of agglomeration in the city regions. This means increasing the benefits and reducing the negatives, including congestion and the costs of commercial space. AVs will assist in reducing these negatives; and so could assist in enabling the Northern Powerhouse.

39. More efficient use of urban space would also allow for better and cheaper commercial space and associated amenities, both of which could be facilitated by widespread adoption of AVs and the space this could free up.

40. Recent studies have shown that population density is directly linked to a city’s productivity. To make more densely populated cities both more realistically achievable and attractive to prospective residents, the UK Government should integrate AVs into their plans, including those for the Northern Powerhouse.

London

41. The London Plan calls for reducing congestion, improving traffic flow, increasing road capacity and improving the parking situation. Each of these goals would be aided by encouraging the development and spread of AVT. This would be especially true if such technology were coupled with the development of greater vehicle sharing platforms, which would reduce individual car ownership and could result in more efficient use of parking facilities.
42. The London Plan also calls for a reduction in CO₂ production. AVs, through their increased reliance on electrical power and their improved efficiency, could assist in achieving this goal.

18. What are the implications of exit from the European Union for research and development and the autonomous vehicle industry in the UK? Are specific actions from the Government needed to support or protect the autonomous vehicles sector in the short term or after the terms of Brexit have been negotiated?

Insurance

43. Leaving the EU could mean the loss of the mutual recognition of motor insurance policies across the EU via the Motor Insurance Directives. At present, there is talk of a green card scheme, which would operate outside the EU and allow a continuation of mutual recognition. However, like so much else involving extraction from the EU, that idea is still a theory only.

44. Whilst the UK may no longer have to apply the strict effect of the Vnuk decision, it will still have to ensure its policies are in line with EU policies so that UK residents can drive their vehicles in the EU. This will be especially important if the UK wishes to continue to send its HGVs to the EU.

45. There is an additional and obvious benefit in the UK leading the way on AVs: it will create a climate in which inward investment into the UK should flourish, whether from countries in the EU or elsewhere.

46. In short, it is vital that the UK ensures that its regulatory framework is ahead of the curve, and it will need to work closely with the EU even after Brexit has been finalised.

EU Standards

47. It seems unlikely that those manufacturers producing AVs in the UK will be able to alter the standards of their vehicles. This is because of the need for harmonisation of vehicle design and construction standards. While there has been some criticism of the EU-wide type approval process for vehicles, a return to UK-only type approval, with some sort of mutual recognition scheme for all other countries, seems unlikely and has not been suggested. This is due in large part to economy of scale - harmonisation of vehicle design and construction standards keeps costs down.

48. Additionally, if UK manufacturers want to sell their AVs within the EU, they will need to continue to conform to EU vehicle design and construction standards. Rather than negotiate mutual recognition schemes, it seems economically practical to abide by the standards of the EU.
49. It is worth observing that two of the leading manufacturers developing AV technology are Volvo and Daimler/Mercedes, both of which are based in the EU and do not manufacture in the UK.

**Investment**

50. The UK automotive industry supports 800,000 jobs and contributes £15.5 billion to the economy each year. More than half of all vehicles and automotive products made in the UK are exported to the EU. Before the referendum the Society of Motor Manufacturers & Traders stated that remaining in the EU would mean that the UK automotive industry would continue to benefit from "unrestricted access to the world’s largest single market, the negotiating strength of the EU to secure international trade deals, the ability to shape technical regulations and free movement of labour".

51. It is obviously very unclear what deal will be negotiated to exit the EU and how that will affect the automotive and insurance industries. For example, we still do not know if the UK will remain within the single market, membership of which would result in few changes for the automotive industry. As such, we cannot offer more than high level possible outcomes.

52. Failure to stay in the single market or achieve an adequate free trade policy would almost certainly result in tariffs on UK AVs going to the EU. This runs the risk of harming the UK automobile industry (both conventional and AV). In that event, manufacturers could be less likely to invest in the UK, making advancements in AVT less likely. Instead, that same investment could go to the EU. As a result, leaving via a 'hard Brexit' could hinder the UK’s automotive industry and emerging AVT.

53. Alternatively, Brexit could make the UK a better place for investment. First, with the recent devaluing of the pound we have already seen foreign capital pour into the FTSE. It is possible that foreign investors could be enticed into putting their capital into the UK AV industry: purchase of UK property and equipment from abroad would look more lucrative. It would also make wages more affordable for those companies whose finances are based on other currencies. Second, a lack of EU regulations could make advancements in technology easier/more likely. Again, this could entice foreign investors into the UK. Finally, locating itself outside the EU could strengthen the UK’s global position through attainment of better trade deals with China, US etc, although it has to be recognised that such trade deals might take years to finalise.

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