



Institute  
and Faculty  
of Actuaries

# House of Commons Public Bill Committee's Have your say on the Automated and Electric Vehicles Bill

IFoA response to House of Commons Public  
Bill Committee

14 November 2017

## **About the Institute and Faculty of Actuaries**

The Institute and Faculty of Actuaries is the chartered professional body for actuaries in the United Kingdom. A rigorous examination system is supported by a programme of continuous professional development and a professional code of conduct supports high standards, reflecting the significant role of the Profession in society.

Actuaries' training is founded on mathematical and statistical techniques used in insurance, pension fund management and investment and then builds the management skills associated with the application of these techniques. The training includes the derivation and application of 'mortality tables' used to assess probabilities of death or survival. It also includes the financial mathematics of interest and risk associated with different investment vehicles – from simple deposits through to complex stock market derivatives.

Actuaries provide commercial, financial and prudential advice on the management of a business' assets and liabilities, especially where long term management and planning are critical to the success of any business venture. A majority of actuaries work for insurance companies or pension funds – either as their direct employees or in firms which undertake work on a consultancy basis – but they also advise individuals and offer comment on social and public interest issues. Members of the profession have a statutory role in the supervision of pension funds and life insurance companies as well as a statutory role to provide actuarial opinions for managing agents at Lloyd's.



Dear Sirs,

## **IFoA response to House of Commons Public Bill Committee's Have your say on the Automated and Electric Vehicles Bill**

### **About the Institute and Faculty of Actuaries**

The Institute and Faculty of Actuaries is the chartered professional body for actuaries in the United Kingdom. A rigorous examination system is supported by a programme of continuous professional development and a professional code of conduct supports high standards, reflecting the significant role of the Profession in society.

Actuaries' training is founded on mathematical and statistical techniques used in insurance, pension fund management and investment and then builds the management skills associated with the application of these techniques. The training includes the derivation and application of 'mortality tables' used to assess probabilities of death or survival. It also includes the mathematics of interest and risk associated with different investment vehicles – from simple deposits through to complex stock market derivatives.

Actuaries provide commercial, financial and prudential advice on the management of a business' assets and liabilities, especially where long term management and planning are critical to the success of any business venture. A majority of actuaries work for insurance companies or pension funds but they also advise individuals and offer comment on social and public interest issues. Actuaries have an important role in pricing motor insurance and reserving for motor insurance claims.

### **Summary**

The IFoA supports the proposals on insurance for automated vehicles as set out in the Automated and Electric Vehicles Bill. We suggest that these proposals may have wider relevance in relation to assisted as well as automated driving. We believe the Bill will have the benefit of enabling automated vehicle owners to buy a single insurance policy including both personal and product liability cover. The insurer can then recover product liability costs from the manufacturer. The Bill exempts insurers from liability to an insured person if an accident was the direct result of altering or failing to update software. We support this but highlight potential problems to establish liability if different parties have different levels of access to relevant data.

**London** 7th Floor • Holborn Gate • 326-330 High Holborn • London • WC1V 7PP • **Tel:** +44 (0) 20 7632 2100 • **Fax:** +44 (0) 20 7632 2111

**Edinburgh** Level 2 • Exchange Crescent • 7 Conference Square • Edinburgh • EH3 8RA • **Tel:** +44 (0) 131 240 1300 • **Fax:** +44 (0) 131 240 1313

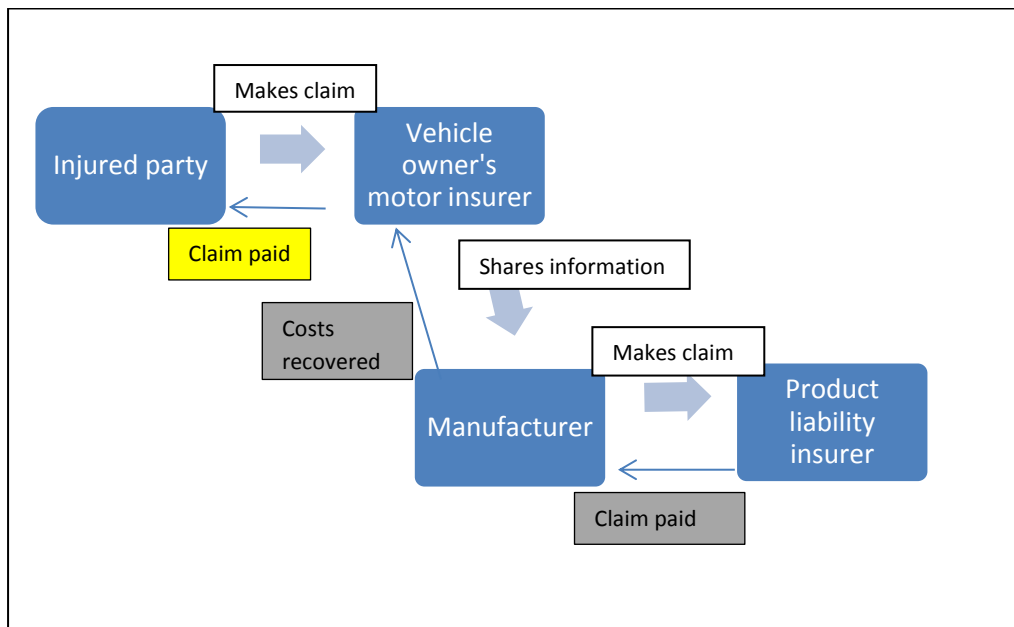
**Oxford** 1st Floor • Park Central • 40/41 Park End Street • Oxford • OX1 1JD • **Tel:** +44 (0) 1865 268 200 • **Fax:** +44 (0) 1865 268 211

**Beijing** 6/F • Tower 2 • Prosper Centre • 5 Guanghua Road • Chaoyang District • Beijing China 100020 • **Tel:** +86 (10) 8573 1000 • **Fax:** +86 (10) 8573 1100

**Hong Kong** 2202 Tower Two • Lippo Centre • 89 Queensway • Hong Kong • **Tel:** +11 (0) 852 2147 9418 • **Fax:** +11 (0) 852 2147 2497

## Detailed comments

1. From the Explanatory Notes to the Bill, we note that clause 1(1)(b) and clause 7(1)(a) together define an automated vehicle as one that is “designed to be capable of safely driving itself for some or part of the journey, without needing to be monitored by an individual”. In our response to the 2016 Department for Transport consultation ‘Pathway to driverless cars: proposals to support advanced driver assistance systems and automated vehicle technologies’ (<https://www.actuaries.org.uk/documents/ifo-response-advanced-driver-assistance-systems-and-automated-vehicle-technologies-09092016>) we argued that the boundary between assisted driving and automated driving is not always well-defined, and that the launch of a fully automated vehicle would be an incremental step rather than a dramatic jump. We suggested that there could be insurance issues with assisted driving as well as automated driving. For example, even though the driver remains in the loop, it does not seem far-fetched to imagine that a malfunction of the assisted technology could cause an accident that is hard for the driver to control. Given that possibility, we would urge the Government to consider if it would be appropriate to extend the measures in the Bill to cover assisted technology.
2. We support Clause 2 of the Bill regarding insurer liability. Currently, if an insured driver of a conventional vehicle causes an accident then the insurance cover will pay to repair or replace their car and the third party’s property, but as regards injuries only the third party is covered, not the insured driver. What the Bill is proposing is that if an accident is caused by the technology in an automated vehicle, in addition to the existing cover, the injury to the ‘driver’ is now also covered as well. We agree that in such a case, the ‘driver’ is an injured party and should be able to seek compensation from their motor insurer. Individuals should not be expected to seek compensation directly from the manufacturer via product liability insurance. We argued for this position in our 2016 consultation response mentioned above.
3. In our view it is the manufacturer who should ultimately pay the cost of those claims that fall under product liability. Clause 2(7) enables this by allowing the insurer to recover costs from the manufacturer where appropriate. We suggested in our consultation response that one way to implement this would be for the buyer to purchase a single policy that includes product liability cover, with the insurer then recovering claims costs under that element from the manufacturer.
4. We note that at least one speaker in the 2<sup>nd</sup> reading debate suggested that it was for an injured party to establish whether liability rests with the vehicle owner or the vehicle and to make a claim accordingly. However, we believe the prospect of disputes between insurers and manufacturers is an argument for ensuring that individual buyers do not have to take out product liability cover. The implication of the Bill (which we agree with) is that the claimant just makes a claim against the insurance policy, regardless of whether it is the driver or vehicle to blame. It is for the insurer to establish where fault lies, and if it determines it to be the vehicle then the insurer has to seek recovery from the manufacturer, having dealt with the claimant in the usual way.
5. The diagram below may help to reduce confusion on this point. Note that the motor insurer must make the payment represented by the yellow box even if the recovery from the manufacturer (the grey boxes) is delayed or unsuccessful.



6. Clause 4 exempts insurers from liability to the insured person if an accident happened because they altered the vehicle's software in breach of the insurance policy, or because they failed to apply safety-critical software updates. Since insurance policies for automated vehicles will be untested, we suggest that there may well be legal disputes, at least in the initial period, about the definitions of circumventing or failing to maintain or inappropriately using the automated vehicle technology.
7. We envisage that it may be difficult to establish whether an accident was the 'direct result' (clause 4(1)) of altering or failing to update software, particularly if different parties have different levels of access to relevant data. For example, if such data was owned by manufacturers there would be a risk that they could try to avoid liability in order to protect their reputations. This could lead to higher premiums for vehicle owners if their motor insurers are not always able to recover product liability claims costs from the manufacturer. On the other hand, if data was owned by the vehicle's insurer this could impede competition. We therefore believe that, within the constraints of data protection legislation, there should be open access for insurers and manufacturers to data on both driver behaviour and the functioning of vehicle technology.
8. One situation in which establishing liability could be difficult is the case of hacking of an automated vehicle. We agreed with a proposal in the 2016 consultation referred to above that an insurer should not be able to exclude liability in such a case, since a hacked vehicle would essentially be out of the driver's control through no fault of their own (similar to a stolen vehicle). However, we noted that the liability could be unclear if the owner was negligent in maintaining the security systems within the automated vehicle technology and this gave an opening for the car to be hacked.
9. Although the Bill does not directly touch on potential costs to policyholders, we note that this was of interest to some of the speakers in the 2<sup>nd</sup> reading debate, and it is a topic on which we commented at length in our 2016 consultation response. In particular, we suggested that even a single accident for an automated vehicle could be relevant for all vehicles using certain software, since it could lead to a product recall and push up the price of insurance. This could make manufacturers reluctant to admit liability, but they would also have an opposing wish to avoid pushing up insurance costs as this could harm vehicle sales. We also note the potential for fewer accidents as the number of automated vehicles grows, and therefore fewer claims and lower premiums.

10. We would highlight that there may be problems to be thought through around what happens if a particular manufacturer ceases trading but their vehicles remain on the road. The recourse of the insurer to recover against that manufacturer will be curtailed, and may depend upon exactly what insurance policies the manufacturer has itself historically purchased. This could potentially drive up premiums for such vehicles in that situation. We are ready to work with other relevant parties to develop practical solutions which would avoid penalising the car owner in this circumstance.

Should you wish to discuss any of the points raised in further detail, please contact Matthew Levine, Policy Manager ([Matthew.Levine@actuaries.org.uk](mailto:Matthew.Levine@actuaries.org.uk) / 020 7632 1489) in the first instance.

Yours sincerely,



Jules Constantinou  
**President-elect, Institute and Faculty of Actuaries**