## LAW COMMISSION AND SCOTTISH LAW COMMISSION

# Automated Vehicles: joint report OVERVIEW

- This is a brief overview of the Law Commissions' joint report on automated vehicles (AVs). Our work began in 2018, at the request of the UK Government's Centre for Connected and Autonomous Vehicles (CCAV). Our 292-page report and 32-page summary build upon three rounds of consultation and feedback from hundreds of stakeholders.
- 2. Many driver support features are currently available to help a human driver. The report anticipates that, in future, these features will develop to a point where an AV will be able to drive itself for at least part of a journey, without a human paying attention to the road. For example, a car may be able to drive itself on a motorway, or a shuttle bus may be able to navigate a particular route.
- 3. This has profound legal consequences. The human driver can no longer be the principal focus of accountability for road safety. Instead, new systems of safety assurance are needed, both before and after vehicles are allowed to drive themselves on roads and other public places. We therefore recommend a new Automated Vehicles Act, setting out new regulatory schemes and new legal actors.

## THE LINE BETWEEN DRIVER SUPPORT AND SELF-DRIVING

- 4. Consultees asked for a clear distinction between driver support and self-driving. In our view, a vehicle should only be authorised as self-driving if it is safe even if an individual is not monitoring the driving environment, the vehicle or the way that it drives.
- 5. Self-driving is compatible with a "transition demand", requiring the person in the driving seat to take control. However, the transition must be clear, using vibrations as well as light and noise. It must give the individual sufficient time to work out what is happening around them. And the vehicle must be able to mitigate the risk if a human fails to take over, by at least coming to a stop.
- 6. While a vehicle is driving itself, we do not think that a human should be required to respond to events in the absence of a transition demand. It is unrealistic to expect someone who is not paying attention to the road to deal with (for example) a tyre blow-out or a closed road sign. Even hearing ambulance sirens will be difficult for those with a hearing impairment or listening to loud music. A vehicle should only be authorised as self-driving if the vehicle can recognise issues it cannot deal with and issue a transition demand.

## **MISLEADING MARKETING**

7. It is important that misleading marketing does not confuse people into thinking they do not need to pay attention to the road when in fact they do. We recommend new safeguards against those who market driver support features as self-driving.

#### **SETTING A SAFETY STANDARD**

- 8. We asked consultees what it means for a vehicle to be sufficiently safe to drive itself. Everyone agreed that AVs should be safer than human drivers but thereafter opinions divided. Some consultees argued that AVs need only be a little bit safer. This would not only save lives initially. It would also allow safety improvements over time as the technology improves.
- 9. Others argued that AVs would need to be substantially safer than human drivers to gain public acceptance. They said that the public does not simply accept injuries caused by bad human drivers: instead this behaviour is criminalised. The public are unlikely to accept an AV that acted in a criminal way. And even if AVs reduce casualties overall, they should not disadvantage particular groups, such as pedestrians or cyclists. There was particularly concern that AVs might disadvantage people on the basis of disability, race or sex.
- 10. The decision over how safe AVs should be depends on whether the risks are acceptable to the public. This is a political question, best taken by ministers. We recommend that the Secretary of State for Transport should publish a safety standard against which the safety of AVs can be measured. As a minimum, AVs should cause fewer deaths and injuries than human drivers in Britain. However, ministers may set a more demanding standard. The standard should also require that AVs do not cause greater risks to identifiable groups of road users.

#### A CHANGED SYSTEM OF LEGAL ACCOUNTABILITY

- 11. Once a vehicle is authorised as having "self-driving" features, and a self-driving feature is engaged, the system of legal accountability will change:
  - (1) The person in the driving seat will no longer be a driver but a "user-in-charge". The user-in-charge cannot be prosecuted for offences which arise directly from the driving task. They will have immunity from a wide range of offences related to the way the vehicle drives, ranging from dangerous driving to exceeding the speed limit or running a red light. However, the user-in-charge will retain other driver duties, such as carrying insurance, checking loads or ensuring that children wear seat belts.
  - (2) Every vehicle will be backed by an Authorised Self-Driving Entity (or ASDE). If the vehicle drives in a way which would be criminal if performed by a human driver, this would be dealt with as a regulatory matter. The issue would be resolved between a new in-use regulator and the ASDE.
  - (3) Some features may be authorised for use without a user-in-charge. We refer to these as "no user-in-charge" (NUIC) features. Here any occupants of the vehicle will simply be passengers. Instead, responsibilities for overseeing the journey will be undertaken by an organisation, a licenced NUIC operator.
  - (4) For purposes of civil liability, the Automated and Electric Vehicles Act 2018 will apply. Victims who suffer injury or damage will not need to prove that anyone was at fault. Instead, the insurer will compensate the victim directly.

## **NEW REGULATORY SCHEMES**

- 12. The report recommends two new regulatory schemes:
  - (1) **Authorisation** will apply before vehicles are put on the road. The authorisation authority will decide whether a feature meets the legal threshold of self-driving and whether it can be used with or without a user-in-charge.
  - (2) The **in-use regulator** will monitor AVs while they are in use. It will evaluate the safety of AV compared with human drivers; investigate road traffic infractions; and ensure that users are given clear information about AVs.

## **NEW LEGAL ACTORS**

- 13. The report also recommends legislation to create three new legal actors:
  - (1) A user-in-charge can be thought of as the human in the driving seat while a self-driving feature is engaged. They must be fit and qualified to drive, as they may be called on to take over driving following a transition demand. However, they cannot be prosecuted for offences relating to the way a vehicle drives, unless they have taken steps to override the system. The user-in-charge will reacquire the obligations of a driver when they take control of the vehicle or at the end of the transition period.
  - (2) The Authorised Self-Driving Entity (ASDE) is the vehicle manufacturer or software developer who puts an AV forward for authorisation. The onus will be on the ASDE to show that vehicle meets the tests for self-driving. It will be expected to present a safety case and an equality impact assessment to regulators. It will also face regulatory sanctions if the AV contravenes road rules.
  - (3) Where a vehicle drives itself without a user-in-charge in the driving seat, it will need to be overseen by **a licensed NUIC operator**. The NUIC operator does not need to monitor the driving environment. However, it is expected that staff in remote operation centres will respond to alerts from vehicles that encounter problems they cannot deal with, break down or become involved in a collision.
- 14. There are many unanswered questions about how remote operations will work, including how to ensure connectivity and cyber-security. Staff need the right equipment to understand what is going on. It may be difficult to judge distance from video feeds onto flat screens, which can also lead to a decreased sense of urgency and empathy. Staff also report boredom, inattention and motion sickness. The NUIC operator will need to submit a safety case showing how it will overcome these challenges.

## THE DUTY OF CANDOUR

15. Our aim is to promote a no-blame safety culture that learns from mistakes. We see this as best achieved through the system of regulatory sanctions, rather than by replicating the criminal sanctions applying to human drivers.

- 16. However, safety assurance will rely heavily on information provided by the ASDE and NUIC operator to the regulator. We therefore recommend specific criminal offences where misrepresentations and non-disclosure by ADSEs and NUIC operators have implications for safety. A senior individual must take responsibility for the accuracy of the information supplied and could face prosecution if it is incorrect or incomplete. Other senior managers could also be liable if they consented or connived at the offence.
- 17. The offences would be "aggravated" if the lack of candour leads to a death or serious injury.

#### OTHER RECOMMENDATIONS

- 18. The report also recommends:
  - (1) an "interim passenger permit", where passenger services are provided using vehicles without a driver or user-in-charge. This includes requirements for services to be accessible, especially to older and disabled people;
  - (2) amendments to existing criminal offences to prevent interference with AVs; and
  - (3) obligations on ASDEs to retain and share data with insurers.

#### **NEXT STEPS**

- 19. The automated vehicles report has been laid before Parliament and the Scottish Parliament. The UK, Scottish and Welsh Governments will decide whether to accept our recommendations and introduce legislation to bring them into effect.
- 20. Details of the review, background papers, impact assessment, analyses of responses and individual responses are available on the websites given below:

Law Commission: https://www.lawcom.gov.uk/project/automated-vehicles/ and

Scottish Law Commission: <a href="https://www.scotlawcom.gov.uk/law-reform/law-reform/law-reform/projects/joint-projects/automated-vehicles/">https://www.scotlawcom.gov.uk/law-reform/law-reform/projects/joint-projects/automated-vehicles/</a>

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