Response to Law Commissions' third consultation on Automated Vehicles (Law Commission Consultation Paper 252; Scottish Law Commission Discussion Paper 171)

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Any personal email addresses and phone numbers have been excluded from this document. Unanswered questions have been deleted from this document.

What is your name?

Dr Christopher Mitchell

What is the name of your organisation?

None

Are you responding to this consultation in a personal capacity or on behalf of your organisation?

Personal response

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-incharge 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?

[Respondents chose from the following options: yes; no; other.]

Yes

The Law Commission should study the experience from aviation of the introduction of Automatic landing for airliners. Initially Britain went for a totally automatic system in which the pilot did not have a possible role in taking over in the event of problems. USA wanted to

go for a system in which the pilot played a part in regular operations. Development showed that the fully automatic approach was the correct one.

When Tridents started using autoland in good visibility as part of crew training there were a number of heavy landings caused by pilots getting worried shortly before touchdown, overriding the system and being unable to achieve a smooth landing. The crews were taking over because the automatic system left the landing flare later than the pilots did manually, and the problem was solved by reprogramming the flare in automatic landings to match what pilots did.

The key conclusion was that automatic systems should be wholly automatic, with no requirement for the pilot/driver to monitor or take over.

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.

Yes, but if the system is fully automatic driver abilities should not be relevant.

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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.

[Respondents chose from the following options: as safe as a competent and careful human driver; as safe as a human driver who does not cause a fault accident; overall, safer than the average human driver; none of the above.]

overall, safer than the average human driver

Again, the Law Commission should study the experience of aviation. Autoland was set a target to be ten times as safe as manually controlled landings. This could not be measured during development tests of the whole system, so the safety performance was assessed by

modelling the reliability and performances of sub-system components and building the performance from the performances of the subsystems.

As a road user, I would personally want the road safety performance of automatic vehicles to be many times better than a safe and careful human driver.

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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.

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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.

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

This is a major issue. It could be that the only way to ensure that AVs are properly maintained is to limit them to fleet vehicles (including taxis for individual use).

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.

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

A road accident investigation branch, on the lines of AAIB, MAIB and RAIB has been long needed, It will be even more important with AVs, but should not be limited to AVs.

Consultation Question 26 (Paragraph 11.82)

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

The passenger in an AV should have no responsibility for the operation of the vehicle.

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.

[Respondents chose from the following options: yes; no; other.]

Nο

If the passenger is not responsible for the operation of the AV, they should not be responsible for where it stops if it breaks down.

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-incharge.

Do you agree?

[Respondents chose from the following options: yes; no; other.]

No

Assuming AVs are fleet vehicles, there is no need for the passenger to be qualified. This offence could apply to the remote operator overseeing the operation of an AV.

Consultation Question 32 (Paragraph 12.59)

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

Do you agree?

[Respondents chose from the following options: yes; no; other.]

No

If these are fleet vehicles (automatic taxis) the user should be no more responsible that a parcel.

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.

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes, the user-in-charge should be liable for all offences not arising from the dynamic driving task; the user-in-charge should be liable for some but not all of the offences listed; no, the user-in-charge should not be liable for any offences; other.]

The user-in-charge should be liable for some but not all of the offences listed

The user in charge should not be responsible for seatbelt use by the passenger. As an employee of the fleet operator I am not sure about liability for insurance or software updates, but the fleet operator should certainly be responsible for these, and provide a system to display to the remote driver the status of vehicles with regard to these.

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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".

[Respondents chose from the following options: yes; no; other.]

Yes

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".

Consultation Question 38 (Paragraph 13.86)

We provisionally propose that:

- (4) 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);
- (5) 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;
- (6) 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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 40 (Paragraph 13.108)

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).

[Respondents chose from the following options: yes, a licensed operator should be subject to all the listed duties; a licensed operator should be subject to some but not all of the listed duties; no, a licensed operator should not be subject to any of the listed duties; other.]

Yes, a licensed operator should be subject to all the listed duties

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?

[Respondents chose from the following options: yes; no; other.]

We welcome views on what the set interval for periodically re-consulting the accessibility advisory panel should be.

AVs should be accessible to people with a full range of disabilities.

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 46 (Paragraph 14.109)

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.

Sounds a good idea.

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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 49 (Paragraph 15.53)

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?

[Respondents chose from the following options: yes, in both England and Wales and Scotland; in neither jurisdiction.]

Yes, in both England and Wales and Scotland

Consultation Question 50 (Paragraph 15.55)

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

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?

[Respondents chose from the following options: yes; no; other.]

Yes

CHAPTER 17: ACCESS TO DATA

Consultation Question 55 (Paragraph 17.65)

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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 56 (Paragraph 17.71)

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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 57 (Paragraph 17.81)

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?

[Respondents chose from the following options: yes; no; other.]

Yes

Consultation Question 58 (Paragraph 17.95)

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?

[Respondents chose from the following options: yes; no; other.]

Yes