Response to the Law Commissions’ preliminary consultation on Automated Vehicles
(Law Commission Consultation Paper 240; Scottish Law Commission Discussion Paper 166)

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What is your name?

Danielle Shadbolt

What is the name of your organisation?

Highways England

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

[Respondents chose from the following options:
- Personal response;
- Response on behalf of your organisation;
- Other.]

Response on behalf of your organisation

CHAPTER 3: HUMAN FACTORS

A new role in driving automation: the “user-in-charge”

Consultation Question 1 (Paragraphs 3.24 - 3.43):

Do you agree that:

(1) All vehicles which "drive themselves" within the meaning of the Automated and
Electric Vehicles Act 2018 should have a user-in-charge in a position to operate the
controls, unless the vehicle is specifically authorised as able to function safely
without one?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

We are initially supportive of having a user-in-charge to operate controls. However, would recommend that the obligations of when vehicles can operate in
automated driving system and when the driver is expected to take back control is clearly specified.

(2) The user-in-charge:
(a) must be qualified and fit to drive;
(b) would not be a driver for purposes of civil and criminal law while the automated driving system is engaged; but
(c) would assume the responsibilities of a driver after confirming that they are taking over the controls, subject to the exception in (3) below?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

Given that the driver must be qualified and fit to drive and ready to take control, drivers ought to be alert to be able to mitigate against accidents and therefore it is our opinion that the vehicle should not be operating in self-drive mode at such a time. The enforceability of such rules will also need to be considered.

(3) If the user-in-charge takes control to mitigate a risk of accident caused by the automated driving system, the vehicle should still be considered to be driving itself if the user-in-charge fails to prevent the accident.

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

Given that the driver must be qualified and fit to drive and ready to take control, drivers ought to be alert to be able to mitigate against accidents and therefore it is our opinion that the vehicle should not be operating in self-drive mode at such a time. The enforceability of such rules will also need to be considered.

**Consultation Question 2 (Paragraph 3.45):**

We seek views on whether the label "user-in-charge" conveys its intended meaning.

It is our opinion that this does convey its meaning. However, it should be clearly set out when vehicles can operate in automated driving system mode and when the driver is expected to take back control.

**Consultation Question 3 (Paragraphs 3.47 - 3.57):**

We seek views on whether it should be a criminal offence for a user-in-charge who is subjectively aware of a risk of serious injury to fail to take reasonable steps to avert that risk.

[Respondents chose from the following options:
- Yes, it should be a criminal offence;
- No, it should not be a criminal offence;
- Other.]
When would a user-in-charge not be necessary?

Consultation Question 5 (Paragraphs 3.59 - 3.77):

Do you agree that powers should be made available to approve automated vehicles as able to operate without a user-in-charge?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment

Consultation Question 7 (Paragraphs 3.80 - 3.96):

Conditionally automated driving systems require a human driver to act as a fallback when the automated driving system is engaged. If such systems are authorised at an international level:

(1) should the fallback be permitted to undertake other activities?

[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

CHAPTER 4: REGULATING VEHICLE STANDARDS PRE-PLACEMENT

A new safety assurance scheme

Consultation Question 8 (Paragraphs 4.102 - 4.104):

Do you agree that:

(1) a new safety assurance scheme should be established to authorise automated driving systems which are installed:
   (a) as modifications to registered vehicles; or
   (b) in vehicles manufactured in limited numbers (a "small series")?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other
We are not competent to advise on this question but best practice from the aviation and rail industries should be followed

(2) unauthorised automated driving systems should be prohibited?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

We are not competent to advise on this question but best practice from the aviation and rail industries should be followed

(3) the safety assurance agency should also have powers to make special vehicle orders for highly automated vehicles, so as to authorise design changes which would otherwise breach construction and use regulations?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

We are not competent to advise on this question but best practice from the aviation and rail industries should be followed

**Consultation Question 9** (Paragraphs 4.107 - 4.109):

Do you agree that every automated driving system (ADS) should be backed by an entity (ADSE) which takes responsibility for the safety of the system?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

An entity must be responsible for the safety (and actions) of the system.

**Consultation Question 10** (Paragraphs 4.112 - 4.117):

We seek views on how far should a new safety assurance system be based on accrediting the developers’ own systems, and how far should it involve third party testing.

We are not competent to advise on this question but best practice from the aviation and rail industries should be followed

**Consultation Question 11** (Paragraphs 4.118 - 4.122):

We seek views on how the safety assurance scheme could best work with local agencies to ensure that is sensitive to local conditions.

We agree that any proposed safety assurance scheme should engage with local (and national) agencies to ensure the vehicles operate safely on their road networks.
Consideration must be given to supporting and resourcing local (and national) agencies in carrying out these actions which are likely to require new specialist skillsets. Protected streets - However, these powers could be used in new and experimental ways. They could, for example, be used to restrict automated vehicles on a given road; or by contrast, to restrict all vehicles other than automated vehicles to dedicated lanes.

CHAPTER 5: REGULATING SAFETY ON THE ROADS

A new organisational structure?

Consultation Question 12 (Paragraphs 5.30 - 5.32):

If there is to be a new safety assurance scheme to authorise automated driving systems before they are allowed onto the roads, should the agency also have responsibilities for safety of these systems following deployment?

[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

If so, should the organisation have responsibilities for:
(1) regulating consumer and marketing materials?
(2) market surveillance?
(3) roadworthiness tests?

[Answers chosen from list of options above:]

No Comment

We seek views on whether the agency’s responsibilities in these three areas should extend to advanced driver assistance systems.

[Respondents chose from the following options:
 - Yes, extend to advanced driver assistance systems;
 - No, do not extend to advanced driver assistance systems;
 - Other.]

Other

No Comment

Driver training

Consultation Question 13 (Paragraphs 5.54 - 5.55):

Is there a need to provide drivers with additional training on advanced driver assistance systems?
[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

If so, can this be met on a voluntary basis, through incentives offered by insurers?

[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

**Accident investigation**

**Consultation Question 14 (Paragraphs 5.58 - 5.71):**

We seek views on whether an Accident Investigation Branch should investigate high profile accidents involving automated vehicles? Alternatively, should specialist expertise be provided to police forces.

• An Accident Investigation Branch could provide a consistent standard to the investigation/report writing/recommendations. It will hold more authority as the Branch/experts should work on a nationwide basis so there is no difference or inconsistency by region, local knowledge, partial input/inclusion, geographic difference, devolved authority/body, local/major/strategic highway authority, police force/coroners office etc. This would also give a central library of the reports/findings/recommendations/enforcement/penalties etc. Furthermore, it would be straightforward to ensure all ‘experts’ that work for the Branch have the appropriate/consistent/relevant/up-to-date qualifications and professional standards that would be required of the role. The record keeping/audit trail & rigour of an investigation would be significantly enhanced.
  
  • Such a central Branch could have an agreement with a body such as TRL to reconstruct accidents/collisions in test/safe/expert/indisputable conditions—rather than the police on the road/at the roadside as now.
  
  • A central Branch should mean that investigations are properly resourced from the time of the incident & the timescales to conduct/report on an investigation can be much more efficiently managed, delivered & reported on.
  
  • The Branch should expect its output/recommendations/findings to lead to/be acted upon across all relevant areas/proceedings – HSE investigations, ORR regulatory investigations, police investigations, CPS charging, coroner’s investigations, Regulation 28 Reports to Prevent Future Deaths etc.

Alternatively, should specialist expertise be provided to police forces.

• If the specialist expertise were put into a nationwide police body – such as the NCA - that could be suitable however it is our view that specialist expertise within the main police force will not prove effective.
  
  • How would a single police force request additional specialist expertise to be ‘provided’ to them if/when they have a need of it? We are concerned that investigations &
specialist expertise would lose their priority/focus/impetus and instead become part of the force resource.

• Added to this, where a report belongs & is copyrighted to each individual Chief Constable, highways authorities/manufacturers/interested parties to an accident/fatality/serious injury are reliant on the rules of disclosure (criminal, civil, coronial) to get access to it (& the court may only allow us to ‘inspect’ the report or relevant sections of it & not the whole.)

Setting and monitoring a safety standard

Consultation Question 15 (Paragraphs 5.78 - 5.85):

(1) Do you agree that the new safety agency should monitor the accident rate of highly automated vehicles which drive themselves, compared with human drivers?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

This is essential for public trust/investigative journalism/FOI

(2) We seek views on whether there is also a need to monitor the accident rates of advanced driver assistance systems.

[Respondents chose from the following options:
- Yes, monitor advanced driver assistance system accident rates;
- No, do not monitor advanced driver assistance system accident rates;
- Other.]

Other

It would serve as a valuable comparison to the automated vehicles and the non-assisted/human vehicles. There is an equality argument to be made between each ‘type’ of technology/driver/human being automated/non-automated/assisted as there is with the settled vs. the unsettled/traveller population within communities. The same principle applies to the roads. If matters are dealt with fairly in a transparent & visible way (as the AAIB) this will gain the trust of the public/road users/car manufacturers as they will see that no one person or body gains any material/non material advantage.

CHAPTER 6: CIVIL LIABILITY

Is there a need for further review?

Consultation Question 17 (Paragraphs 6.13 - 6.59):

We seek views on whether there is a need for further guidance or clarification on Part 1 of Automated and Electric Vehicles Act 2018 in the following areas:
(1) Are sections 3(1) and 6(3) on contributory negligence sufficiently clear?

[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

(2) Do you agree that the issue of causation can be left to the courts, or is there a need for guidance on the meaning of causation in section 2?

[Respondents chose from the following options:
- Leave to courts;
- Need for guidance;
- Other.]

Other

With regards to causation this seems to make sense but would require a combination of common sense and good argument,

(3) Do any potential problems arise from the need to retain data to deal with insurance claims? If so:

(a) to make a claim against an automated vehicle’s insurer, should the injured person be required to notify the police or the insurer about the alleged incident within a set period, so that data can be preserved?

(b) how long should that period be?

With regards to data retention, if there is nothing definitive then insurance companies may not retain data for suitable lengths of time.

**Civil liability of manufacturers and retailers: Implications**

**Consultation Question 18 (Paragraphs 6.61 - 6.116):**

Is there a need to review the way in which product liability under the Consumer Protection Act 1987 applies to defective software installed into automated vehicles?

[Respondents chose from the following options: Yes; No; Other.]

Other

No comment it is more appropriate for the police and the vehicle manufacturers to respond.

**Consultation Question 19 (Paragraphs 6.61 - 6.116):**

Do any other issues concerned with the law of product or retailer liability need to be addressed to ensure the safe deployment of driving automation?
No comment, it is more appropriate for the police and the vehicle manufacturers to respond.

CHAPTER 7: CRIMINAL LIABILITY

Offences incompatible with automated driving

Consultation Question 20 (Paragraphs 7.5 - 7.11):

We seek views on whether regulation 107 of the Road Vehicles (Construction and Use) Regulations 1986 should be amended, to exempt vehicles which are controlled by an authorised automated driving system.

[Respondents chose from the following options:
- Yes, amend regulation 107 in this way;
- No, do not amend regulation 107 in this way;
- Other.]

Yes, amend regulation 107 in this way

Yes, we agree that Regulation 107 of the Road Vehicles (Construction and Use) Regulations 1986 should be amended, to exempt vehicles which are controlled by an authorised automated driving system because Regulation 107 is incompatible with some forms of automated vehicles.

Consultation Question 21 (Paragraphs 7.5 - 7.11):

Do other offences need amendment because they are incompatible with automated driving?

[Respondents chose from the following options: Yes; No; Other.]

Yes

Yes, other offences do require amendment because they are incompatible with automated driving. We support the new definition of ‘user in charge’, i.e., a person. New/amended offences could include, for example, “user in charge unfit through drink/drugs”. Notices etc. could be served on the ‘user in charge’.

Offences relating to the way a vehicle is driven

Consultation Question 22 (Paragraphs 7.14 - 7.19):

Do you agree that where a vehicle is:
- (1) listed as capable of driving itself under section 1 of the Automated and Electric Vehicles Act 2018; and
- (2) has its automated driving system correctly engaged;
the law should provide that the human user is not a driver for the purposes of criminal offences arising from the dynamic driving task?
Yes we agree with this. The human user should not be considered as a driver for the purposes of criminal offences arising from the dynamic driving task.

**Consultation Question 23 (Paragraph 7.21):**

Do you agree that, rather than being considered to be a driver, a user-in-charge should be subject to specific criminal offences? (These offences might include, for example, the requirement to take reasonable steps to avoid an accident, where the user-in-charge is subjectively aware of the risk of serious injury (as discussed in paragraphs 3.47 to 3.57)).

Yes the ‘user in charge’ would be subject to specific criminal provisions which would include requirements to be qualified and fit to drive as well as to take reasonable steps to avert a risk of which the user is subjectively aware.

**Consultation Question 24 (Paragraphs 7.23 - 7.35):**

Do you agree that:

1. a registered keeper who receives a notice of intended prosecution should be required to state if the vehicle was driving itself at the time and (if so) to authorise data to be provided to the police?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment

2. where the problem appears to lie with the automated driving system (ADS) the police should refer the matter to the regulatory authority for investigation?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment

3. where the ADS has acted in a way which would be a criminal offence if done by a human driver, the regulatory authority should be able to apply a range of regulatory sanctions to the entity behind the ADS?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment
(4) the regulatory sanctions should include improvement notices, fines and suspension or withdrawal of ADS approval?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment

**Consultation Question 26** (Paragraphs 7.37 - 7.45):

Where a vehicle is listed as only safe to drive itself with a user-in-charge, should it be a criminal offence to be carried in the vehicle if there is no person able to operate the controls.

[Respondents chose from the following options: Yes; No; Other.]

Other

No Comment

**Responsibilities for other offences**

**Consultation Question 27** (Paragraphs 7.48 - 7.65):

Do you agree that legislation should be amended to clarify that users-in-charge:

(1) Are “users” for the purposes of insurance and roadworthiness offences; and

(2) Are responsible for removing vehicles that are stopped in prohibited places, and would commit a criminal offence if they fail to do so?

[Respondents chose from the following options: Agree; Disagree; Other.]

Other

No Comment

**Aggravated offences**

**Consultation Question 32** (Paragraphs 7.92 - 7.123):

We seek views on whether there should be a new offence of causing death or serious injury by wrongful interference with vehicles, roads or traffic equipment, contrary to section 22A of the Road Traffic Act 1988, where the chain of causation involves an automated vehicle.

[Respondents chose from the following options:
- Yes, new offence;
- No, no new offence;
- Other.]
Consultation Question 33 (Paragraphs 7.113 - 7.123):

We seek views on whether the Law Commissions should review the possibility of one or more new corporate offences, where wrongs by a developer of automated driving systems result in death or serious injury.

[Respondents chose from the following options:  
- Yes, review new corporate offences;  
- No, do not review new corporate offences;  
- Other.]  

Consultation Question 34 (Paragraphs 8.1 - 8.58):

We seek views on whether the criminal law is adequate to deter interference with automated vehicles. In particular:

(1) Are any new criminal offences required to cover interference with automated vehicles?

[Respondents chose from the following options: Yes; No; Other.]

Other

It would be prudent to consider new criminal offences which will cover interference with automated vehicles

(2) Even if behaviours are already criminal, are there any advantages to re-enacting the law, so as to clearly label offences of interfering with automated vehicles?

[Respondents chose from the following options: Yes; No; Other.]

Other

We agree that even if behaviours are already criminal, there may be advantages to providing a new label, to clarify that some forms of interference with automated vehicles in particular, are unacceptable
**Tampering with vehicles**

**Consultation Question 35** (Paragraphs 8.28 - 8.31):

Under section 25 of the Road Traffic Act 1988, it is an offence to tamper with a vehicle’s brakes “or other mechanism” without lawful authority or reasonable cause. Is it necessary to clarify that “other mechanism” includes sensors?

[Respondents chose from the following options: Yes; No; Other.]

Other

Under section 25 of the Road Traffic Act 1988, it is an offence to tamper with a vehicle’s brakes “or other mechanism” without lawful authority or reasonable cause. The word “mechanism” in is not defined, though it has been held to include exposed ignition wires. We agree that consider that sensors would be considered part of the mechanism, though the issue is not entirely certain. Our view is that it would be sensible to clarify that the term “mechanism” includes sensors.

**Unauthorised vehicle taking**

**Consultation Question 36** (Paragraphs 8.32 - 8.39):

In England and Wales, section 12 of the Theft Act 1968 covers “joyriding” or taking a conveyance without authority, but does not apply to vehicles which cannot carry a person. This contrasts with the law in Scotland, where the offence of taking and driving away without consent applies to any motor vehicle. Should section 12 of the Theft Act 1968 be extended to any motor vehicle, even those without driving seats?

[Respondents chose from the following options: Yes; No; Other.]

Other

In England and Wales, section 12 of the Theft Act 1968 covers “joyriding” or taking a conveyance without authority, but does not apply to vehicles which cannot carry a person. This contrasts with the law in Scotland, where the offence of taking and driving away without consent applies to any motor vehicle. Yes, we agree that section 12 of the Theft Act 1968 could be extended to any motor vehicle so that the a person who takes control of/ instructs the automated vehicle without consent is guilty of an offence under the theft act.

**Causing danger to road users**

**Consultation Question 37** (Paragraphs 8.6 - 8.12):

In England and Wales, section 22A(1) of the Road Traffic Act 1988 covers a broad range of interference with vehicles or traffic signs in a way which is obviously dangerous. In Scotland, section 100 of the Roads (Scotland) Act 1984 covers depositing anything a road, or inscribing or affixing something on a traffic sign. However, it does not cover interfering with other vehicles or moving traffic signs, even if this would raise
safety concerns. Should section 22A of the Road Traffic Act 1988 be extended to Scotland?

[Respondents chose from the following options: Yes; No; Other.]

Other

In England and Wales, section 22A(1) of the Road Traffic Act 1988 covers a broad range of interference with vehicles or traffic signs in a way which is obviously dangerous. In Scotland, section 100 of the Roads (Scotland) Act 1984 covers depositing anything a road, or inscribing or affixing something on a traffic sign. However, it does not cover interfering with other vehicles or moving traffic signs, even if this would raise safety concerns. We agree that it would seem sensible to consider extending section 22A of the Road Traffic Act 1988 should be extended to Scotland.

CHAPTER 9: “MACHINE FACTORS” – ADAPTING ROAD RULES FOR ARTIFICIAL INTELLIGENCE DECISION-MAKING

Rules and standards

Consultation Question 38 (Paragraphs 9.6 - 9.27):

We seek views on how regulators can best collaborate with developers to create road rules which are sufficiently determinate to be formulated in digital code.

regular collaboration with manufacturers, highway authorities, lawyers and human behaviour experts would be required.

Should automated vehicles ever mount the pavement?

Consultation Question 39 (Paragraphs 9.6 - 9.37):

We seek views on whether a highly automated vehicle should be programmed so as to allow it to mount the pavement if necessary:

(1) to avoid collisions;
(2) to allow emergency vehicles to pass;
(3) to enable traffic flow;
(4) in any other circumstances?

[Answers chosen from list of options above:]

It is our opinion that an AV should be programmed to make the safest and most ethical decision

Consultation Question 40 (Paragraphs 9.6 - 9.37):

We seek views on whether it would be acceptable for a highly automated vehicle to be programmed never to mount the pavement.
It is our opinion that an AV should be programmed to make the safest and most ethical decision.

**Should highly automated vehicles ever exceed speed limits?**

**Consultation Question 41** (Paragraphs 9.40 - 9.47):

We seek views on whether there are any circumstances in which an automated driving system should be permitted to exceed the speed limit within current accepted tolerances.

It is our opinion that an AV should be programmed to make the safest and most ethical decision.

**Avoiding bias in the behaviour of automated driving systems**

**Consultation Question 43** (Paragraphs 9.68 - 9.74):

To reduce the risk of bias in the behaviours of automated driving systems, should there be audits of datasets used to train automated driving systems?

[Respondents chose from the following options: Yes; No; Other.]

Other

In our opinion, there should be audits of datasets to ensure there are some consistencies between manufacturers.

**Transparency**

**Consultation Question 44** (Paragraphs 9.76 - 9.88):

We seek views on whether there should be a requirement for developers to publish their ethics policies (including any value allocated to human lives)?

[Respondents chose from the following options: Yes; No; Other.]

Other

In our opinion, we believe manufacturers should publish their ethics policies to ensure they reflect with any ethic changes to legislation as a result of AVs.

**Future work and next steps**

**Consultation Question 46** (Paragraphs 9.91 - 9.93):

Is there any other issue within our terms of reference which we should be considering in the course of this review?
It is noted that the Terms of Reference that the primary focus are on What is an “automated vehicle”? and on Passenger Transport (as opposed to goods deliveries). However, we would request that thought is given to where Light Good Vehicles/Transit Vehicles are considered, as the platooning trials focus more on large freight. On this basis, Transit Vans appear to be a grey area but based on the 2018 Road Traffic Forecasts are set to increase 23% to 108% between 2015 and 2050.