

Automated Vehicles: Summary of the Preliminary Consultation Paper

Cycling Scotland Submission February 2019

Cycling Scotland welcomes the opportunity to comment on Commission's consultation on automated vehicles.

Cycling Scotland is the nation's cycling organisation. Working with others, we help create and deliver opportunities and an environment so anyone anywhere in Scotland can cycle easily and safely. Our vision is for a sustainable, inclusive and healthy Scotland where anyone anywhere can enjoy all of the benefits of cycling.

Our overall points to this consultation are:

- The objectives conflict with each other. We welcome that the key objective is safety and a focus on criminal and legal clarity. However, to "wish to remove any unnecessary blocks which might delay the benefits of driving automation to mobility and productivity" assumes that there are only benefits to automated vehicles when the potential downsides, such as inefficient use of road space from more vehicles, compared to public transport, should also be taken into account.
- The assumptions in this consultation are somewhat premature, given that fully autonomous vehicles, able to operate safely, are clearly a distant technological dream.
- The differences in Scots Law, especially criminal law, and the devolution of The Traffic Signs Regulations and General Directions (TSRGD) needs to be recognised in any framework— for example a Scottish equivalent of Section 22A of the Road Traffic Act should be enacted.
- We welcome the fact that the Commission hasn't reached a conclusion to the question when should an automated vehicle mount the pavement, exceed the speed limit or edge through pedestrians. Given the current level of technological development and the major ethical concerns involved, it would be premature to attempt to answer these questions.

We acknowledge that on motorways, there may be opportunities to introduce this technology. However, we refer to the conclusions of Euro NCAP¹ who clearly state:

- *No car on the market today offers full automation or autonomy.*
- *Cars on the market today can provide driver assistance but this should not be confused with automated driving. The driver remains fully responsible for safe driving.*
- *Used correctly, this technology can help the driver to maintain a safe distance, speed and to stay within the lane.*
- *These systems should not be used in situations they are not designed for and should not be relied upon as an alternative to safe and controlled driving.*

We would also highlight the response of our partner organisation Cycling UK who have responded to the Law Commission of England and Wales directly.

¹ <https://www.euroncap.com/en/press-media/press-releases/testingautomation/>

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?

Yes, we agree, and we don't believe a vehicle should be authorised to be on the public highway without a user-in-charge. As outlined elsewhere, there may be opportunities to introduce autonomous vehicle technology on motorways (controlled roads), where the risks to vulnerable road users, like people cycling and pedestrians, is minimised; however, given the current technology limitations, there should always be a user-in-charge.

As technology becomes established, it may be possible for autonomous vehicles to be permitted on urban streets; however, there will need to be strong and robust policies and procedures in place to ensure that the technology will be safe, and appropriate penalties in place for companies and individuals that do not meet the required standard and/or who flout laws and regulations.

(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?

Given the current stage of technological development, the user-in-charge should remain the driver for the purposes of civil and criminal law at all times.

(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.

No, the user-in-charge should remain the driver for the purposes of civil and criminal law at all times, given the current stage of technological development.

Consultation Question 2 (Paragraph 3.45): We seek views on whether the label "user-in-charge" conveys its intended meaning.

N/A

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.

Yes, it should be a criminal offence for the user-in-charge to fail to behave responsibly and take steps to prevent the risk of serious injury occurring. The legislation should ensure that there are adequate criminal penalties in place for drivers who do not act in a reasonable manner when using such vehicles, and where they do not follow the manufacturers instructions with regards to operating the vehicle(s).

When would a user-in-charge not be necessary? Consultation Question 4 (Paragraphs 3.59 - 3.77): We seek views on how automated driving systems can operate safely and effectively in the absence of a user-in-charge.

We believe that at this time, a user-in-charge is always necessary to ensure the safety of all road users, and especially for vulnerable road users like people cycling and pedestrians.

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?

No, this is premature, as there is insufficient evidence to prove that the automated vehicles can be operated safely in all environments in Scotland

When should secondary activities be permitted? Consultation Question 6 (Paragraphs 3.80 - 3.96): Under what circumstances should a driver be permitted to undertake secondary activities when an automated driving system is engaged?

Given the current stage of technological development, this should not be permitted.

Consultation Question 7 (Paragraphs 3.80 - 3.96): Conditionally automated driving systems require a human driver to act as a fall-back when the automated driving system is engaged. If such systems are authorised at an international level: (1) should the fall-back be permitted to undertake other activities? (2) if so, what should those activities be?

N/A

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")?

Yes, subject to caveats highlighted elsewhere

(2) unauthorised automated driving systems should be prohibited?

Yes

(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?

Yes, subject to caveats highlighted elsewhere

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?

No, it should be the user-in-charge.

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.

It has to involve testing at least equivalent to current Euro NCAP safety tests.

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.

N/A

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? If so, should the organisation have responsibilities for: (1) regulating consumer and marketing materials? (2) market surveillance? (3) roadworthiness tests? We seek views on whether the agency's responsibilities in these three areas should extend to advanced driver assistance systems.

It should remain the user-in-charge's responsibility that their vehicle is roadworthy.

Autonomous vehicles can capture a lot of data; however, it is unclear if such data will be able to be used to improve the safety of people cycling. For example, if an autonomous vehicle knocks a person cycling off their bike, or carries out a dangerous close pass, there is no evidence that the police will be able to recover data from the vehicle (or other witness vehicles). This is a problem with current autonomous vehicle technology and must be addressed within any safety assurance scheme.

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

Yes, this should be part of the driving test for common technologies.

Accident investigation Consultation Question 14 (Paragraphs 5.58 - 5.71): We seek views on how accidents involving driving automation should be investigated. 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.

Police force accident investigation capacity has reduced over the years and specialist service requires significant resource to be supported and sustained, given the impact of road crashes on individuals and wider society. Without significant resource and consistent capacity, accident investigation will be ineffective.

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

This should be part of Police monitoring to ensure adequate evidence is collected

The technical challenges of monitoring accident rates Consultation Question 16 (Paragraphs 5.86 - 5.97): (1) What are the challenges of comparing the accident rates of automated driving systems with that of human drivers? (2) Are existing sources of data sufficient to allow meaningful comparisons? Alternatively, are new obligations to report accidents needed?

Changes will be required to Stats 19. Given that with current technological limitations we believe that there must always be a user-in-charge in every vehicle. Collecting accident rate data should enhance the evidence base, when captured alongside data from driver-operated vehicles.

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? (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? (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?

N/A

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?

Yes

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?

N/A

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.

No, see caveats elsewhere.

This would remove liability from both the driver and the manufacturer of the vehicle/automated driving system, and would result in no one being criminally liable. This position is unacceptable and should be avoided.

Consultation Question 21 (Paragraphs 7.5 - 7.11): Do other offences need amendment because they are incompatible with automated driving?

No, see caveats elsewhere

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?

No, see caveats elsewhere. As outlined above, as we believe there should always be a user-in-charge, the user-in-charge should be treated in the same way as a driver of a conventional vehicle for the purpose of prosecution for criminal offences. This is necessary to ensure the safety of vulnerable road users.

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)).

No, please see above. Considering the user-in-charge to be subject to a specific criminal offence may reduce the seriousness of the offence in the eyes of the user-in-charge and does little to mitigate similar dangerous behaviour from reoccurring. As they are operating a vehicle, a user-in-charge needs to be treated the same as a driver.

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? (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? (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? (4) the regulatory sanctions should include improvement notices, fines and suspension or withdrawal of ADS approval?

N/A

Responsibilities of “users-in-charge” Consultation Question 25 (Paragraphs 7.37 - 7.45): Do you agree that where a vehicle is listed as only safe to drive itself with a user-in-charge, it should be a criminal offence for the person able to operate the controls (“the user-in-charge”): (1) not to hold a driving licence for the vehicle; (2) to be disqualified from driving; (3) to have eyesight which fails to comply with the prescribed requirements for driving; (4) to hold a licence where the application included a declaration regarding a disability which the user knew to be false; (5) to be unfit to drive through drink or drugs; or (6) to have alcohol levels over the prescribed limits?

Yes. Users-in-charge must be treated the same as drivers of conventional vehicles.

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.

Yes

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?

Users-in-charge should continue to have the same responsibilities as drivers at present, so no amendments are required.

Consultation Question 28 (Paragraphs 7.59 - 7.61): We seek views on whether the offences of driving in a prohibited place should be extended to those who set the controls and thus require an automated vehicle to undertake the route.

Yes

Obligations that pose challenges for automated driving systems Consultation Question 29 (Paragraphs 7.71 - 7.88): Do you agree that legislation should be amended to state that the user-in-charge is responsible for: (1) duties following an accident; (2) complying with the directions of a police or traffic officer; and (3) ensuring that children wear appropriate restraints?

Users-in-charge should continue to have the same responsibilities as drivers at present, so no amendments are required.

Consultation Question 30 (Paragraphs 7.71 - 7.88): In the absence of a user-in-charge, we welcome views on how the following duties might be complied with: (1) duties following an accident; (2) complying with the directions of a police or traffic officer; and (3) ensuring that children wear appropriate restraints.

Users-in-charge or vehicle owners should continue to have the same responsibilities as at present, so no amendments are required.

Consultation Question 31 (Paragraphs 7.71 - 7.88): We seek views on whether there is a need to reform the law in these areas as part of this review.

N/A

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.

Yes

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.

Yes

CHAPTER 8: INTERFERING WITH AUTOMATED VEHICLES 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? (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?

New offences are required to ensure appropriate punishment in line with the seriousness of the offence committed. The deliberate act of interfering with an automated vehicle should be recognised as an offence in law, with punishment commensurate with the seriousness of the offence.

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?

Yes. This is particularly important for autonomous vehicles, as they are heavily reliant on sensors/sensor technology to detect other vehicles and road users, and are essential to ensure their safe operation on the road.

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?

Yes

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?

Given that TSRGD is devolved, Scotland-specific legislation should be developed.

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.**

This should be examined for motorways where road rules and users are more predictable. It is premature to look at any other type of road.

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?

No, they should not under any circumstances. Such action would significantly negatively impact on vulnerable road users, especially pedestrians including children and the elderly.

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.

Yes, this is welcome; however, the many roads without pavements also need to be taken into account.

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.

No, they should not under any circumstances.

Edging through pedestrians Consultation Question 42 (Paragraphs 9.49 - 9.55): We seek views on whether it would ever be acceptable for a highly automated vehicle to be programmed to “edge through” pedestrians, so that a pedestrian who does not move faces some chance of being injured. If so, what could be done to ensure that this is done only in appropriate circumstances?

No, they should not under any circumstances. Such behaviour poses a significant safety risk to pedestrians and negatively impacts on their road space use experience.

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?

Yes

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)?

Yes. The value of human life should be the primary consideration of ethics policies and where ethical judgements are being made, this should be subject to legal oversight.

Consultation Question 45 (Paragraphs 9.76 - 9.88): What other information should be made available?

N/A

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?

N/A