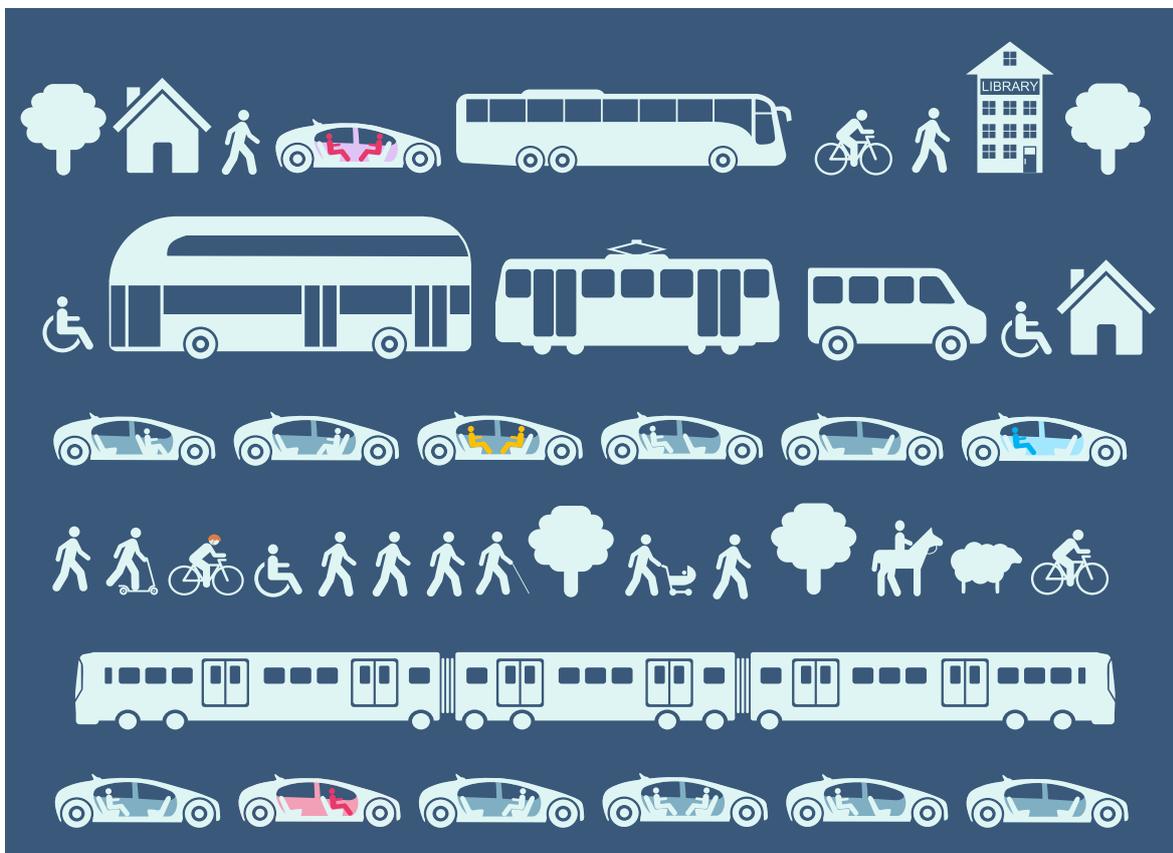




Automated Vehicles: Summary of the Analysis of Responses to Consultation Paper 2 on Passenger Services and Public Transport





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Introduction

- 1.1 The Law Commission of England and Wales and the Scottish Law Commission are conducting a three-year review to prepare laws for self-driving vehicles at the request of the UK Government's Centre for Connected and Autonomous Vehicles.
- 1.2 In November 2018, we published Consultation Paper 1, in which we focussed on safety assurance together with civil and criminal liability. We received 178 responses and published an analysis of the views expressed in June 2019.
- 1.3 In October 2019, we published Consultation Paper 2, which looked at how highly automated vehicles might be used to supply passenger transport services to the public. We received 109 responses with nearly 1300 pages of discussion. As is shown by the chart below, we received responses from a wide range of consultees. We are enormously grateful to all of those who gave us their time to help inform our recommendations for a safe and successful legal and regulatory system for this new technology.



THIS DOCUMENT

- 1.4 We are keen to provide feedback on what people told us. We are therefore publishing this short summary, together with a full 160 page analysis of responses to each question. As this does not do justice to all the points made, we are also publishing the responses themselves. We will rely on this material as we develop our thinking.
- 1.5 This summary covers:
- (1) introduction;
 - (2) key themes emerging from the responses received;
 - (3) a new Highly Automated Road Passenger Service (HARPS) operator licensing scheme;
 - (4) operator licensing - scope and content;
 - (5) privately owned passenger-only vehicles;
 - (6) accessibility;
 - (7) regulatory tools to control congestion and cruising; and
 - (8) integrating HARPS with public transport.

NEXT STEPS

- 1.6 We intend to publish a third consultation paper (Consultation Paper 3) later in 2020. This will bring together proposals from both Consultation Paper 1 on safety assurance and from Consultation Paper 2 on operator licensing. It will also consider outstanding issues, such as corporate liability and access to data.
- 1.7 Our aim is to formulate detailed proposals which will lead to a final report in 2021, in which we will make recommendations for new legislation.

Key themes

- 2.1 Consultation Paper 2 discussed Highly Automated Road Passenger Services, or “HARPS”. We coined this term to convey the idea of a new service which uses highly automated vehicles to supply road journeys to passengers without a human driver or user-in-charge.¹ Vehicles used for such services would be capable of travelling empty or with only passengers on board.

HARPS AS A NEW SERVICE

- 2.2 We described HARPS as a new form of service, sufficiently different from current passenger services to warrant a new regulatory structure. We did not think that HARPS could easily be shoehorned into the existing regimes which apply to taxis, private hire and public service vehicles (like buses and coaches). For these reasons, Chapters 3 and 4 of Consultation Paper 2 proposed a new, separate system of HARPS operator licensing.
- 2.3 The operator licensing scheme would be *in addition* to the safety assurance scheme proposed in Consultation Paper 1, which focussed on the design of the automated driving system (ADS).
- 2.4 In Consultation Paper 1, we proposed that each ADS would be put forward for authorisation by an Automated Driving System Entity (ADSE) to vouch for its safety. The two schemes are intended to work together. The ADSE would be responsible for the software which determines dynamic driving decisions. The HARPS operator would be responsible for insuring, maintaining and supervising the vehicle and for offering the transport service to the public. The ADSE and HARPS could be the same or different entities, and both are important to ensuring public safety of automated vehicles on UK roads.
- 2.5 In Chapter 5 we discussed the possibility that some passenger-only vehicles may be personal vehicles, owned or leased by individuals for their exclusive benefit. We considered who would be responsible for insuring, maintaining and supervising such vehicles.

ACHIEVING TRANSPORT OBJECTIVES

- 2.6 The regulatory regime must also promote services that benefit society, helping to achieve transport objectives. In Chapter 2 of Consultation Paper 2, we considered the Government’s Future of Mobility Urban strategy and a variety of local transport plans.²

¹ See Automated Vehicles: Consultation paper 2 on Passenger Services and Public Transport (16 October 2018) Law Commission Paper No 245; Scottish Law Commission Discussion Paper 166, <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2019/10/Automated-Vehicles-Consultation-Paper-final.pdf>, paras 1.2 – 1.21 (CP2).

² Department for Transport (DfT), *Future of Mobility: Urban Strategy* (March 2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/846593/future-of-mobility-strategy.pdf.

They all set similar goals: to combat climate change, improve air quality and encourage social inclusion. They aim to reduce the congestion caused by car dependency and move towards mass transit (such as trains and buses) and active travel (such as cycling and walking). Many discuss ways to make walking more attractive through “healthy streets” (with, for example, wider pavements, places to rest and things to see).

- 2.7 We then set out two different scenarios for HARPS. In the positive vision, we described how HARPS could reduce car dependency by offering flexible and accessible alternatives. Properly managed, HARPS would feed into an integrated transport system which used mass transit to reduce congestion. Less car ownership would reduce on-street parking, freeing space for cycle lanes and healthy streets.
- 2.8 The negative vision then looked at potential risks. Too many vehicles might cruise empty around urban streets, increasing congestion and undermining bus and train services. Also, without a human driver to help, HARPS might be inaccessible for some disabled and older people.
- 2.9 Our aim was to design a regulatory regime which facilitated the benefits and guarded against the risks posed by HARPS. Therefore, in Chapter 6 we considered access for disabled and older people. In Chapter 7 we discussed regulatory tools to control congestion and empty cruising. Finally, in Chapter 8 we considered how HARPS may be integrated with mass transit.

TRANSPORT OBJECTIVES AND RECENT EVENTS

- 2.10 Consultation Paper 2 attempted to look at the future of road transport and how HARPS might help (or hinder) society’s objectives. Since consultation closed in February 2020, the UK has entered a period of lockdown to combat the global COVID-19 emergency. This has transformed many aspects of society, including the way we use roads. Although it is too early to understand the long-term effects, we have considered how some of these changes might affect the issues addressed in our paper.

An unpredictable future

- 2.11 Many responses emphasised how uncertain the future has become, and how regulation must be sufficiently flexible to deal with a wide variety of eventualities. As discussed above, these uncertainties have been amplified by the lockdown imposed to combat the COVID-19 pandemic. Any regulatory system must be sufficiently flexible to adapt to change.

Less travel

- 2.12 In Consultation Paper 2 we noted that people were travelling less, as communications technology led to more homeworking and more online shopping. In 2019 this was a slow trend. Now that so many people have greater experience of homeworking and online shopping, these habits seem likely to endure. One possible long-term outcome is less travel overall, with knock-on benefits for congestion, air quality and climate change.
- 2.13 What are the implications of less travel for car ownership? Consultation Paper 2 highlighted that even though people made fewer trips per head, car ownership continued to increase. Many people feel that they must have a car, because at least

some of the journeys they undertake cannot be made in any other way. The Government Office of Science noted that many low-income households undergo “car-related economic stress”, because they feel that they have no alternative than to own a car, with the considerable upfront costs that involves.³ Once households have met these up-front costs they often use the car in preference to public transport, because the additional costs of any given car trip are (or seem) lower than the alternatives.

- 2.14 At present, those who do not own a car often rely on taxis, private hire vehicles and rented cars for trips which cannot be made in any other way. But taxis and private hire vehicles are expensive and the process of booking, collecting and returning a hire car can be cumbersome. We said that the ability to summon a HARPS to one’s door, cheaply and efficiently whenever it is needed, would transform the current pressures towards car dependency.
- 2.15 As people travel less, there will come a tipping point at which households decide they no longer need to own a car. The better, cheaper and more convenient the alternatives, the more quickly this point will be reached. For most journeys the aim must be to provide low-carbon alternatives, such as active travel and mass transit. However, there will always be a few essential trips which require smaller, more individualised vehicles for some or all of the journey. Easing people away from car ownership will require a wide range of alternatives and HARPS have the potential to be an important part of this mix.

A renewed impetus towards improved air quality

- 2.16 The Covid-19 emergency is likely to lead to greater awareness of threats to public health. In 2018, Public Health England (PHE) described poor air as “the largest environmental risk to public health in the UK”.⁴ Although it is too early to be sure, recent studies suggest a possible link between air pollution and COVID-19 mortality.⁵
- 2.17 The lockdown measures have shown what healthy streets look like. There is likely to be greater emphasis on re-designing streets to give greater priority to cycling and walking.⁶
- 2.18 In Consultation Paper 2 we noted that the average car in the UK is parked 96% of the time. HARPS could be used much more intensively, helping reclaim space currently ceded to parking. The freed space could then be used to encourage active travel (for example through more cycle lanes and wider pavements).

³ Government Office for Science, *Future of Mobility* (January 2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/780868/future_of_mobility_final.pdf, p 64.

⁴ PHE, *Guidance Health matters: air pollution* (November 2018) at, <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>

⁵ See, for example, Xiao Wu, Rachel C. Nethery and others, “Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study”, Harvard University April 2020, <https://projects.iq.harvard.edu/covid-pm>.

⁶ DfT recently announced a £2 billion package to encourage greater use cycling, See *Transport Secretary's statement on coronavirus (COVID-19)* (9 May 2020) <https://www.gov.uk/government/speeches/transport-secretarys-statement-on-coronavirus-covid-19-9-may-2020>.

Decarbonisation

- 2.19 In March 2020, the Department for Transport (DfT) committed itself to developing an ambitious plan to accelerate the decarbonisation of transport by November 2020.⁷ There are many strands to this work, including the transition to zero emission road vehicles by 2035. This will involve the supply of new electric vehicles and major changes to the refuelling and recharging infrastructure.
- 2.20 In Consultation Paper 2 we anticipated that moves towards automation will also involve electrification. The focus on electrification is now likely to be even stronger. Between them, automation and electrification will alter the way we use roads with major implications for regulation and infrastructure. We therefore need to be aware that many of the issues considered in Consultation Paper 2 are subject to change.

Concerns about ride-sharing

- 2.21 In Consultation Paper 2 we drew attention to the potential of ride-sharing to reduce congestion. We noted how new technology allows vehicles to alter routes in response to demand from other passengers, citing the examples of Uber-pool and the Oxford Bus Company's PickMeUp minibuses.
- 2.22 Many consultees expressed strong concerns about ride-sharing in the absence of a human driver and how it would affect vulnerable people. Since February 2020, these concerns have been amplified by the need to practise and enforce social distancing. There are many issues about how to safeguard passengers in small shared automated vehicles which the industry has yet to overcome.

Freight resilience

- 2.23 There has been renewed interest in ensuring resilient delivery systems, which are less dependent on human drivers.
- 2.24 Our terms of reference asked us to focus on passenger transport. Therefore, key proposals in Consultation Paper 2 only applied to operators who carried passengers or who carried a mix of passengers and freight. They did not apply to freight-only services. We said that freight vehicles may face similar challenges and welcomed observations on how far our proposals might be relevant to freight. We are grateful for all the observations we received on what is likely to become a more pressing issue.

⁷ DfT, *Decarbonising Transport: Setting the Challenge* (March 2020) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878642/dcarbonising-transport-setting-the-challenge.pdf.

A new HARPS operator licensing scheme

- 3.1 In Consultation Paper 2, we considered how HARPS might be licensed. The safe operation of HARPS is our priority. To ensure this, the law will need to identify the person or organisation responsible for updating, insuring and maintaining the vehicles and guarding against cyber-attacks. Furthermore, we need to ensure that HARPS are supervised so that vehicles do not stop inappropriately and impede traffic. We therefore proposed a new system to licence those who operate HARPS.

THE CURRENT LAW

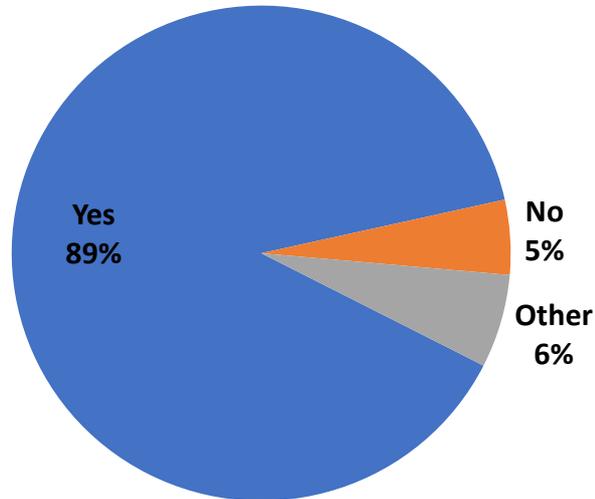
- 3.2 Traditionally, road passenger services have been divided into taxis, private hire vehicles (PHVs),⁸ public service vehicles (PSVs) and rental services, with separate regulatory systems applying to each. At one stage, these separate services corresponded to clearly recognised market divisions between a taxi, minicab, bus, coach or car hire. But these divisions are already blurred and may disappear altogether in an automated world.
- 3.3 We did not think that HARPS could be shoehorned into these existing categories. Furthermore, some aspects of taxi and PHV regulation are unsuited to HARPS, such as the emphasis on regulating drivers and the small size of many licensing authorities.

OUR PROPOSAL

- 3.4 We provisionally proposed that HARPS should be subject to a new single national system of operator licensing. We asked if consultees agreed.
- 3.5 This drew considerable support: 89% of consultees said yes. The main arguments in favour were safety, avoiding unnecessary burdens on operators, and avoiding regulatory shopping.

⁸ In Scotland, “private hire cars”.

Do you agree that highly automated road passenger services (HARPS) should be subject to a single national system of operator licensing?



3.6 We also provisionally proposed that there should be a national scheme of basic safety standards for operating a HARPS. The vast majority (95%) of consultees agreed. Consultees thought that national standards would provide a consistent level of safety across the UK and ensure a “level playing field” for developers. Some consultees highlighted that it might also be useful to align those safety standards with relevant international standards.

DEVOLUTION

3.7 Several consultees expressed concerns about devolution. They noted that elements of the proposed scheme would fall within the competencies of the Scottish and Welsh legislatures.

3.8 Any scheme must be consistent with the devolution settlement: we acknowledge that England, Wales and Scotland may decide to establish separate schemes.⁹ If so, in setting guidance under the legislation, we hope that the three schemes will work together to ensure a harmonised approach and to allow vehicles to cross borders.

LOCAL POWERS TO MANAGE HARPS

3.9 There is a clear consensus that the standards required to ensure safety should be set nationally. However, consultees also stressed the need for local autonomy to respond to differing circumstances and demands. Several emphasised that local authorities should have the tools they need to manage the introduction of HARPS in their areas. It

⁹ This project has not considered regulation in Northern Ireland. Given the unique relationship between Northern Ireland and EU law, any recommendations for regulation in Northern Ireland will need to be considered separately.

was also suggested that even if licences were issued by a national authority, licensing conditions should be enforced and administered by local authorities.

- 3.10 We acknowledge the need for HARPS to respond to local circumstances. In Chapters 7 and 8 of Consultation Paper 2 we discussed how to improve the range of tools available to transport authorities to address challenges in their areas and how these might apply specifically to HARPS. We consider responses to these issues below.
- 3.11 In the light of the responses we received, we will also explore other ways to provide greater local involvement, including local enforcement.

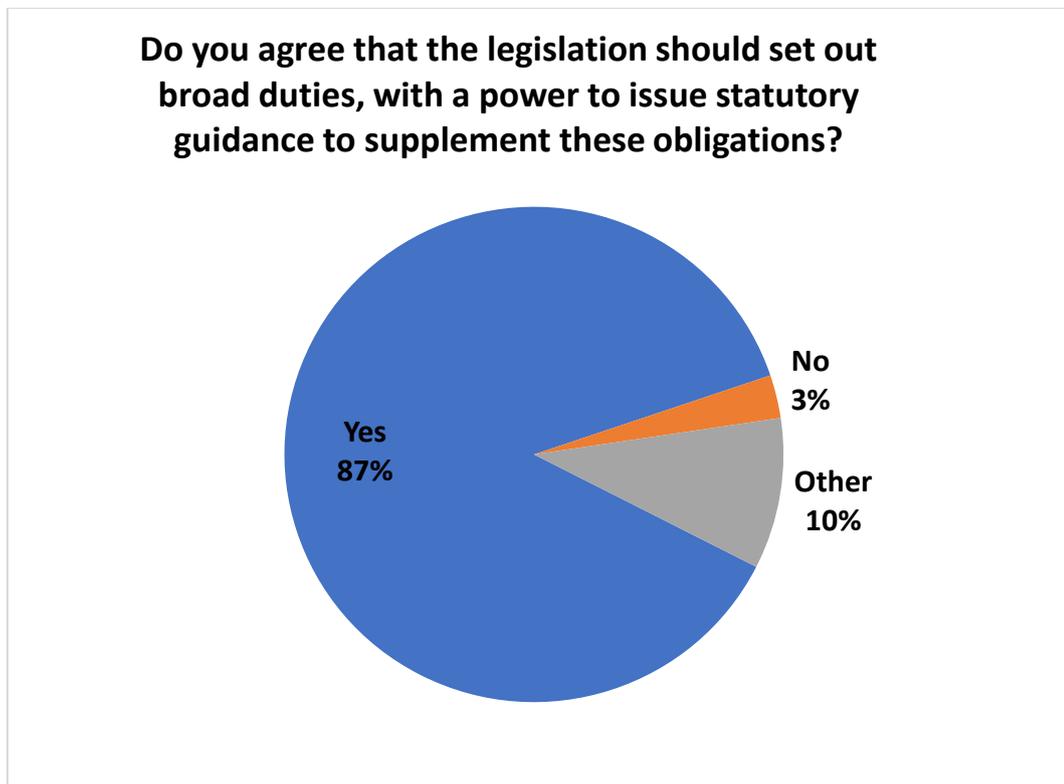
Operator licensing – scope and content

DEFINING A HARPS OPERATOR

- 4.1 In Chapter 4 of Consultation Paper 2 we started by looking at the scope of a new HARPS operator licensing scheme. We provisionally proposed to define a HARPS operator as any business which carries passengers for hire or reward using highly automated vehicles on a road without a human driver or a user-in-charge.
- 4.2 Most consultees (79%) agreed. However, some consultees expressed reservations about the phrases “on a road” and “hire or reward”. We note the concern that defining HARPS as “on a road” may be too narrow, and we will consider extending this to “or a road or other public place”. As discussed in relation to privately owned vehicles below, we will also review whether to limit the scheme to those carrying passengers “for hire or reward”.

THE NEED FOR FLEXIBILITY

- 4.3 We looked at how a new licensing scheme for HARPS might work, using the PSV scheme as a starting point.
- 4.4 PSV legislation is often phrased in terms of broad principles and supplemented by guidance which provides more detail for operators. We asked if the legislation for HARPS should also set out broad duties with a power to issue statutory guidance. There was widespread support for this approach: 87% of consultees agreed.



- 4.5 It is difficult to anticipate how HARPS will develop. On this basis, many consultees stressed the importance of flexibility. The COVID-19 emergency has driven home the message that it is extremely difficult to plan for the future. We are therefore encouraged by the support shown for a broad regulatory framework that can develop as new issues arise.

EXEMPTIONS

- 4.6 Both PSV and private hire legislation contain many exemptions. For example, community groups and community bus services are exempt from some regulatory requirements. The majority of respondents thought that safety was paramount: therefore, at least initially, the existing exemptions should not apply.
- 4.7 However, many consultees wished to encourage innovation. Most thought that the Secretary of State should have power to exempt specified trials from at least some aspects of the scheme, provided that the operator made a stringent safety case.

GOOD REPUTE AND PROFESSIONAL COMPETENCE

- 4.8 Under current legislation, those applying for standard operator licences must demonstrate that they are, for example, of good repute and professionally competent. Most respondents (77%) agreed that these (or similar) criteria should be included within the HARPS scheme.
- 4.9 Many respondents supported the idea that a HARPS operator should employ a qualified transport manager, even if initially it would be difficult to determine the required skills. Consultees provided practical suggestions about possible courses and certification approaches. Alternatively, it was said that firms could develop safety management systems which allocated responsibilities through the organisation.

DUTIES OF OPERATORS

- 4.10 There was broad consensus over the main HARPS operator duties. Consultees agreed that HARPS operators should be obliged to maintain vehicles; insure vehicles; supervise vehicles; and report collisions and other incidents. We see these headings as forming the basis of any draft legislation.
- 4.11 There was less consensus over how far HARPS operators should be obliged to safeguard passengers from assault, abuse and harassment by other passengers. It is clear that there are many difficulties in how to protect passengers in a small shared space, without the presence of a driver or other human supervisor. Making shared vehicles work remains a major challenge for the industry.

PRICE INFORMATION

- 4.12 In response to our question on price information, consultees agreed that HARPS passengers need access to transparent price information before booking. There were mixed views, however, on whether the HARPS operator licensing agency should have the power to withdraw the licence from an operator who failed to give this information.

WHICH AGENCY?

- 4.13 Finally, we did not express a view on which agency should administer HARPS operator licensing, seeing this as a decision for Government rather than the Law Commissions. However, we welcomed observations to pass on to DfT.
- 4.14 This elicited views in favour of a range of organisations, including the Traffic Commissioners, the Driver and Vehicle Standards Agency and the new safety assurance agency discussed in Consultation Paper 1.

Privately owned passenger-only vehicles

- 5.1 Consultation Paper 2 focussed on highly automated vehicles authorised for use without a driver or user-in-charge (passenger-only vehicles). Chapter 4 looked at commercial passenger services. By contrast, Chapter 5 considered passenger-only vehicles which are privately-owned, and intended for private rather than commercial use.

PLACING RESPONSIBILITIES ON THE KEEPER

- 5.2 In the absence of a driver or user-in-charge, a key question emerges: who should bear legal responsibility for insurance, roadworthiness, installing updates and removing vehicles causing obstructions?
- 5.3 Our central proposal was that those responsibilities should fall on the keeper. Most respondents agreed: two-thirds (68%) agreed that the person who keeps the vehicle should be legally responsible, and three-quarters (76%) agreed that this should be presumed to be the registered keeper.
- 5.4 However, placing responsibilities on the keeper leads to many difficult boundary issues, particularly when a vehicle is leased (e.g. by a finance company to an individual). Although respondents accepted the aims of our proposals, they expressed concerns about the complexity of our approach to leased vehicles. There was also concern about how our division between private and commercial services would apply to new business models such as peer-to-peer (P2P) lending.

COMPLEX BOUNDARIES

When is a leasing contract equivalent to private ownership?

- 5.5 The first problematic boundary is how to distinguish between leasing a highly automated vehicle in a way that people consider to be equivalent to private ownership, and renting a vehicle for a short time as a passenger service. While private owners might expect to bear responsibilities, renters may not.
- 5.6 We suggested that a lessor should be regarded as a HARPS operator unless the vehicle is for the lessee's exclusive use for at least six months. Here only a narrow majority (53%) agreed, with many suggesting that "exclusive use" was unclear and six months was arbitrary.

What if a leasing company is registered as the keeper?

- 5.7 In many long-term leasing arrangements, the lessor places their name on the register as the registered keeper even though they have little day-to-day responsibility for the vehicle.
- 5.8 In these circumstances, we asked if there should be a procedure for transferring duties to the lessee, provided that the duties were clearly explained and the lessee signs a statement accepting responsibility. A majority of consultees thought there should be a transfer procedure, but a significant minority questioned how it would work.

Peer-to-peer (P2P) lending

- 5.9 We asked about P2P lending. Many consultees thought it would lead to loopholes in HARPS regulation: private individuals might lend vehicles in a way which goes beyond mere “social kindness” but does not amount to the business of “carrying passengers for hire or reward”.

CAN INDIVIDUALS MEET THE TECHNICAL CHALLENGES?

- 5.10 Operating passenger-only vehicles may be onerous. We queried whether individuals would be able to meet the technical challenges of updating software, guarding against cyber-attacks and removing vehicles from the side of the road.
- 5.11 We provisionally proposed a regulation-making power which could be used to require registered keepers to contract with a licensed provider for supervision and maintenance services. We envisaged that a “licensed provider” would either be a HARPS operator or would be subject to similar licensing requirements in organising maintenance and supervision.
- 5.12 Most consultees (73%) agreed. Many emphasised that supervision and maintenance will require specialist knowledge that private individuals are unlikely to have.
- 5.13 However, some consultees queried whether we were right to exempt private owners from operator licensing, and then include a regulation-making power to require a contract with one. They thought this might be the wrong way round. Several consultees urged us to consider requiring all those who operated passenger-only vehicles to hold a HARPS licence, with lighter obligations (“HARPS-minus”) on privately-owned vehicles which did not carry passengers for hire or reward.

THE WAY FORWARD

- 5.14 We note consultees’ concerns about the complexity of our proposals and the uncertainties surrounding key boundaries. In Consultation Paper 3 we will consider whether it is possible to achieve similar outcomes in a more streamlined way.
- 5.15 Where passenger-only vehicles are privately-owned, someone will need to be responsible for insurance, maintenance, software-updates, cyber-security and intervening in the case of a malfunction. Many consultees agreed that, at least initially, some of these responsibilities will be onerous. Private individuals will need to contract with third parties (like HARPS operators) to ensure, for example, that software is updated and vehicles are attended to if they break down.
- 5.16 In Consultation Paper 2 we provisionally proposed that responsibilities should lie with the person who keeps the vehicle, subject to a regulation-making power to require the keeper to contract with a licensed provider. One way to simplify our proposals could be to reverse the starting point so that all passenger-only vehicles used without a user-in-charge must be operated by a licensed entity similar to a HARPS operator. This would then be subject to a regulation-making power, allowing keepers who used passenger-only vehicles for private purposes to do without a licensed provider as and when it becomes safe to do so.

5.17 On this basis, initially, all passenger-only vehicles would be covered by the core safety requirements of the HARPS operator licensing scheme. However, some provisions of HARPS operator licensing (such as price information) would only apply to commercial passenger services. As we get more experience of these types of vehicle, licensed providers could agree with the keeper that the keeper would undertake some responsibilities (such as insurance). Then, as maintenance and software updates become easier and more automated, keepers would be able to take over progressively more duties. We will consider this further in our next consultation.

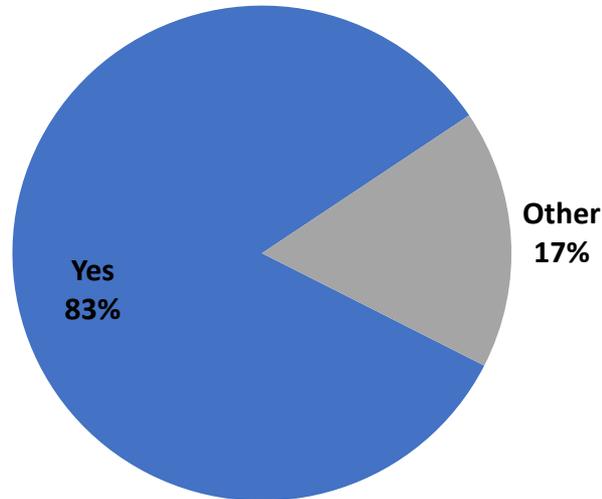
Accessibility

- 6.1 Many respondents stressed the importance of accessibility if the potential benefits of HARPS are to be realised. There was high engagement with this issue, leading to many practical suggestions for features and services to maximise the accessibility of HARPS. Case studies involving members of Disability Equality Scotland, Anxiety UK and Guide Dogs UK provided further insight into the accessibility needs of people with disabilities.
- 6.2 There was widespread support for three concepts which underpinned our paper:
- (1) **Co-design**, where older and disabled people work with designers, operators and regulators to ensure vehicles and services are accessible from the outset;
 - (2) **The “whole journey” approach**, which considers a trip from booking to the destination.
 - (3) **Outcome-based regulation**, setting out 12 accessibility outcomes which HARPS could be measured against, without prescribing how they should be achieved.

EXTENDING EQUALITY ACT DUTIES

- 6.3 Section 29 of the Equality Act 2010 imposes duties on those providing services to the public (including listed land transport providers) not to discriminate and to make reasonable adjustments for people with disabilities. We provisionally proposed to extend these duties to HARPS operators. This received widespread agreement: 83% of respondents said yes and no-one said no. Of those that answered “other”, most mentioned the need to avoid stifling innovation.

Should the duties applicable to land transport service providers under section 29 of the Equality Act 2010 be extended to operators of HARPS?



- 6.4 Several responses emphasised that people with particular accessibility needs should not have to pay more for accessible services.

MINIMUM STANDARDS OF ACCESSIBILITY

- 6.5 There was overwhelming support for developing minimum standards of accessibility, balanced against the need to promote innovation. We also note that disability groups uniformly supported national licensing for HARPS operators, emphasising the importance of consistent standards and enforcement.
- 6.6 There was also widespread agreement that regulation should specify outcomes for users, rather than prescribing how those outcomes should be achieved.
- 6.7 When we asked about areas to cover, strong majorities supported provision being made for ensuring passengers can board and alight vehicles; requiring reassurance and accessible information upon disruption; and expanding support at designated points of departure and arrival. However, several respondents saw this as a matter of vehicle and infrastructure design, rather than the service provided.
- 6.8 Many responses highlighted that some accessibility outcomes, such as helping passengers in and out of vehicles, may require human assistance for some time. Pending a possible technological solution, one approach would be to have such journeys catered for by conventional vehicles with human drivers rather than HARPS. Over half of the responses considering the issue favoured the possibility of providing support at hubs and designated stopping points. Some referred to human conductors on board HARPS vehicles – especially larger ones.

NO ONE-SIZE-FITS-ALL SOLUTION

- 6.9 A recurring theme was the need to avoid a “one-size-fits-all” approach that stifles innovation. HARPS may vary widely in size and mode of operation, including hop-on/hop-off models and those that are exclusively pre-booked.
- 6.10 Where journeys are booked in advance, they can be fulfilled by the more appropriate service, whether a HARPS or a human-driven vehicle service. It was suggested that a mixed-fleet approach may be one way for HARPS operators to fulfil accessibility requirements overall, although this may not be viable for every HARPS operator. By contrast more standardised and broad accessibility requirements might be required for hop-on/hop off models that are not pre-booked to ensure older and disabled persons are not excluded from such services.
- 6.11 Ultimately, different accessibility requirements will be appropriate for different use cases for HARPS, which must be considered as part of the overall transport mix.

DATA REPORTING

- 6.12 The most divisive question proved to be whether HARPS operators should be required to record data on usage by older and disabled people. Although a majority agreed that they should, many respondents drew attention to the need to ensure that data protection laws are complied with and privacy is respected.

THE WAY FORWARD

- 6.13 In March 2020, the Government published its *Future of Transport Regulatory Review: Call for Evidence*. It highlighted the need for early action on accessibility:

*As new technologies and services change the way we use, access, and experience transport, now is an opportunity to embed accessibility and equality at the centre of the regulatory framework for new technologies and modes of travel, whilst ensuring that current protections for all passengers are respected and preserved.*¹⁰

- 6.14 Responses to this consultation support the view that accessibility standards should be embedded in regulation from the start. We also note the support for national minimum standards, both for vehicle design and the whole HARPS user experience.
- 6.15 We plan to return to these proposals in Consultation Paper 3, considering how accessibility standards for HARPS might be developed, administered and enforced.

¹⁰ DfT, *Future of Transport Regulatory Review: Call for Evidence* (March 2020), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/873363/future-of-transport-regulatory-review-call-for-evidence.pdf.

Regulatory tools to control congestion and cruising

- 7.1 Once the technology has been approved, there is a concern that HARPS operators will place large numbers of vehicles on city streets. Where the cost of driving is less than the cost of parking, there is a danger that vehicles will “cruise” – that is, they will circle around empty between bookings, adding to congestion.
- 7.2 Traditionally, cities have controlled taxi cruising through quantity restrictions, which place a cap on the total number of taxis allowed in a given area. However, quantity restrictions can be a blunt instrument with the potential to act in an anti-competitive way. Caps on total numbers appear particularly ill-suited to an innovative technology. If the first one or two operators flood the market, a cap would prevent another provider from entering the market – even if the new provider is able to offer a better, safer or cheaper service.
- 7.3 In Chapter 7 of Consultation Paper 2 we looked at a variety of tools to prevent congestion and empty cruising. We considered four possible levers for controlling how HARPS are used: Traffic Regulation Orders (TROs); parking charges; road pricing; and different approaches to quantity restrictions (including a phased introduction).

TRAFFIC REGULATION ORDERS

- 7.4 TROs provide local highway or roads authorities with wide powers to regulate the use of a given road, either by traffic generally or by a class of traffic. TROs could be used, for example, to restrict HARPS on a given road. Alternatively, they could prohibit all traffic apart from HARPS. They could be used to provide dedicated parking for HARPS or (alternatively) to prevent HARPS from waiting or picking up passengers in particular places.
- 7.5 Consultees agreed that TROs provide flexible powers, but highlighted that the procedure for creating TROs was cumbersome, expensive and out-of-date. Many TROs are still paper-based. There are major challenges to digitising existing orders and maintaining a digital system. At the same time, many new TROs need to be created quickly, to effect the changes involved in promoting cycling and walking and to respond to new challenges (including electrification and, eventually, HARPS). This requires faster, more streamlined procedures for making orders.
- 7.6 In Consultation Paper 2 we considered initiatives to improve TRO procedures, including DfT’s “TRO Alpha” review. Many consultees welcomed this review. Since consultation closed, in April 2020, the Government published guidance designed to enable local authorities to make TROs more quickly, even if the COVID-19 emergency made it difficult to follow previous procedures.¹¹ The Scottish Government has issued similar guidance in relation to Scottish local authorities. The Coronavirus (Scotland) Act 2020

¹¹ DfT, *Advertising traffic regulation orders during coronavirus (COVID-19)* (21 April 2020), <https://www.gov.uk/government/publications/traffic-orders-advertising-during-coronavirus-covid-19/advertising-traffic-regulation-orders-during-coronavirus-covid-19>.

enables public bodies to publish documents online as a means of complying with statutory duties.¹² The experience of using these alternatives can be used to inform future developments.

- 7.7 We hope that the Governments within Great Britain will prioritise TRO reform as part of their work on the future of transport. In addition to its other benefits, we see this work as an important precursor to the successful introduction of automated vehicles.

KERBSIDE REGULATION AND PRICING

- 7.8 One answer to empty cruising would be to charge more for cruising than for parking. In Consultation Paper 2 we described this as a major change from current practice, where far more money is collected from parking than from congestion charging. It would also mean a change from the current balance between private cars and cars with shared access. We were told that parking charges for club cars are “many times more expensive” than for private cars, which has hampered the spread of car clubs in London.
- 7.9 This proved a controversial area. Consultees were split on whether kerbside access for HARPS should be prioritised. There was also concern about treating HARPS vehicles differently from other vehicles and in isolation from other issues.
- 7.10 We agree that parking charges for HARPS are part of a much wider debate. The revolution in urban transport will require communities to rethink the way the kerbside is regulated and paid for. The Government’s decarbonisation review points out that around 25% of cars are parked on streets overnight.¹³ As these cars become electric, they will need assured access to charging points. At the same time, the move away from private cars towards shared-access vehicles (including HARPS) is likely to require a change in the balance of parking charges.
- 7.11 We are keen that local authorities have all the powers they need to act flexibly. Our current view is that the legislation is already sufficiently wide, and would (for example) allow local authorities to treat classes of vehicles differently. However, if local authorities find that they would benefit from new powers, we hope that the relevant Governments will respond favourably.

ROAD PRICING

- 7.12 One answer to cruising is to charge directly for the use of roads. In 2019, the Government Office for Science reviewed the literature on road pricing, concluding that when schemes are implemented well, they are effective. They shift traffic to off-peak

¹² Coronavirus (Scotland) Act 2020, sch.6 para.9. See also Transport Scotland, *Coronavirus (COVID-19) Guidance on Temporary Traffic Regulation Orders and Notices (2020)*, <https://www.transport.gov.scot/media/47432/coronavirus-covid-19-guidance-on-temporary-traffic-regulation-orders-and-notices.pdf>. See also Coronavirus (Scotland) Act 2020, sch.6 para.9.

¹³ DfT, *Decarbonising Transport: Setting the Challenge* (March 2020), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878642/dcarbonising-transport-setting-the-challenge.pdf, p 20.

periods and ease congestion. The Royal Academy of Engineering described road pricing as the best tool available to tackle congestion.¹⁴

- 7.13 On the other hand, road pricing has often met public opposition. Drivers perceive it as an extra tax and resent paying more for something they already have.¹⁵
- 7.14 In Consultation Paper 2 we suggested that HARPS were particularly well suited to road pricing. Automated technology allows a much more flexible approach. Rather than paying a single congestion charge each day, HARPS could pay per mile travelled, with different mileage rates depending on the road, occupancy and time of day. The availability of data would make such schemes cheap to implement. Furthermore, as HARPS are a new service, they would not suffer from the same acceptability issues.
- 7.15 Consultees expressed considerable interest in road pricing to meet the challenges of improving air quality and reducing congestion, while replacing fuel duty. However, many consultees did not wish to see HARPS treated differently from other vehicles: they thought this could disadvantage HARPS and become a barrier to their widespread use.
- 7.16 We see a strong case for using road pricing as a way of managing the challenges of HARPS and urban transport more generally. However, road pricing raises issues which extend far beyond HARPS, including how to approach road taxation in the post-fossil fuel world. These issues may be more appropriately considered by DfT and Transport Scotland rather than by the Law Commissions.

QUANTITY RESTRICTIONS

- 7.17 A majority of consultees supported a phased approach to HARPS introduction, in which the agency licensing HARPS operators has the power to limit the number of vehicles any given operator can use within a given area for an initial period. However, many consultees stressed the need for local input in this process. We intend to return to this issue in Consultation Paper 3 and bring forward more specific proposals.
- 7.18 There was much greater controversy over across the board limits, which regulate the total number of HARPS vehicles in a given area. Given the controversies involved, we think this may be an issue for Government rather than the Law Commissions. We will pass the responses to DfT.

¹⁴ See CP2, paras 7.66 and 7.67.

¹⁵ RAC Foundation, *The Acceptability of Road Pricing* (2011), https://www.racfoundation.org/wp-content/uploads/2017/11/acceptability_of_road_pricing-walker-2011.pdf.

Integrating HARPS with public transport

8.1 As the UK Government's *Future of Mobility: Urban Strategy* emphasises, "mass transit must remain fundamental to an efficient transport system".¹⁶ In Chapter 8 of Consultation Paper 2, we said that HARPS could either be a form of mass transit or support it. HARPS could contribute to mass transit in two ways.

- (1) They may operate in ways we associate with buses and trams. This led to questions about how far existing bus regulation should apply.
- (2) Smaller HARPS may be part of an overall transport mix which encourages people to use public transport by (for example) taking people to the station.

WHEN SHOULD HARPS BE SUBJECT TO BUS REGULATION?

8.2 In Consultation Paper 2 we described some of the complexities of existing bus regulation. All vehicles which carry more than eight passengers are regulated as PSVs. Bus operators must therefore be licensed as PSV operators. In addition, local bus services are subject to additional regulations, which differ between London and the rest of the country. In London, bus services are franchised by Transport for London. Outside London, the system is essentially deregulated, but the Traffic Commissioners administer route registration and punctuality requirements.

8.3 We provisionally proposed that HARPS vehicles should be treated as buses for the purposes of franchising, route registration and punctuality if they can transport more than eight passengers at a time, charge separate fares and do not fall within existing exemptions. Around half of consultees agreed. However, the issue proved controversial, with debate (for example) about the proposed threshold of eight passengers.

8.4 We are grateful to consultees for their detailed responses, indicating some of the tensions and controversies about how the UK currently regulates bus services. Even in February 2020, it was clear that bus regulation was set to change,¹⁷ as transport authorities took greater control of their transport mix, to meet the challenges posed by climate change and air pollution. Since our consultation closed, new challenges have arisen: how do we protect bus drivers and maintain social distancing on public transport while attempting to reignite the economy after lockdown?

8.5 We accept that any attempt to define a bus service should not be stuck in an outdated view. This would suggest that the issue of when a HARPS falls within franchising,

¹⁶ DfT, *Future of Mobility: Urban Strategy* (March 2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/846593/future-of-mobility-strategy.pdf, Principle 4.

¹⁷ For example, in March 2020, DfT canvassed views on flexible bus regulations: see DfT, *Future of transport regulatory review* (16 March 2020) <https://www.gov.uk/government/consultations/future-of-transport-regulatory-review-call-for-evidence-on-micromobility-vehicles-flexible-bus-services-and-mobility-as-a-service>.

registration and punctuality requirements is best left to a regulation-making power. We will return to this issue in Consultation Paper 3.

A STATUTORY PARTNERSHIP SCHEME

- 8.6 Finally, we looked at a possible statutory scheme to foster collaboration between HARPS operators and transport authorities. We provisionally proposed that where transport authorities provided facilities to HARPS (such as waiting space near stations) they could impose standards – particularly participation in integrated ticketing schemes.
- 8.7 Most consultees (74%) supported such schemes, particularly if they allowed consumers to plan, book and pay for journeys on a single digital platform. There was concern, however, about making schemes mandatory.
- 8.8 We set out the idea only in the broadest of outlines. There are many standards which might be imposed on operators (including obligations to be accessible and to provide data to regulators on travel and road conditions). There are also many possible facilities which might be provided, ranging from parking and priority lanes to charging facilities and depots. We do not see such standards as mandatory: many business models would fall outside the scheme. Standards would only apply where HARPS formed a partnership with a transport authority and were provided with benefits as a result.
- 8.9 Our current, tentative, thinking is that any new legislation on HARPS should make some provision for partnership schemes. We are not in a position to design the content on such schemes: that will be a matter for transport authorities when faced with the reality of HARPS in their area. However, in Consultation Paper 3 we will consider the possibility of a broad statutory power, to allow for schemes to be developed in the future.