

**Law Commission – Automated Vehicles:
Passenger services and public transport. A second joint consultation paper**

Written response from Transport for London

1. Executive Summary

- 1.1. This paper has been prepared as a response to the Law Commission’s consultation paper on passenger-based Autonomous Vehicles (AVs). We welcome the comprehensive consultation carried out by Law Commission, which builds on the initial consultation on safety assurance and legal liability. We recognise the need for a regulatory review to allow the potential benefits of highly autonomous vehicles to materialise. In doing so, it is vital that no change in legislation or introduction of new legislation compromises safety.
- 1.2. With a population of 8.9 million, London is now larger than it has ever been and it is forecast to grow to 10.8 million by 2041. The Mayor’s Transport Strategy (MTS) sets out a vision for healthier, cleaner and safety city. Fundamental to this vision is the need for a shift away from the use of car by adopting the Healthy Streets Approach set out in the MTS.
- 1.3. New mobility services, such as advanced AVs, have the potential to change the way people move around cities and improve their lives. We have identified seven guiding principles, set out in policy 23 of the MTS, to evaluate new transport services to ensure they support the Healthy Streets Approach.
- 1.4. We recognise that AVs could present multiple benefits to society, including offering additional transport options to those less mobile and improving safety by reducing the risk of road traffic collisions. However, they also present operational risks to road networks, with early analysis suggesting that, without policy interventions, they could potentially increase congestion and discourage active travel.
- 1.5. In order to allow the potential benefits of highly AVs to be realised, it is fundamental that any regulatory review is based on these overarching points:
 - 1.5.1. It is vital that no change to (or introduction of new) legislation compromises the safety of passengers, other road users or members of the public.
 - 1.5.2. Our view is that there should be national minimum safety standards for operating Highly Automated Road Passenger Services (HARPS). However, the fundamental role of local authorities (Boroughs in the case of London) and transport authorities (TfL in London) in shaping new services such as HARPS to their local needs should be maintained through relevant legislative powers. This will enable cities to maximise the benefits and minimise any unintended consequences of HARPS for their populations as a whole.
 - 1.5.3. While highly AV technology is still predominantly in testing and development in the

UK, there are a plethora of companies who are undertaking trials, including in London. It is necessary for the Government or relevant licensing agencies to decide what a company would need to demonstrate for its autonomous driving systems to be deemed suitable for use.

- 1.5.4. Considering the pace of change in the AV industry, we agree that the legislation should set out a list of broad principles whilst also retaining a degree of flexibility to enable lessons learnt and best practice to be incorporated into these principles. As such, we stress the need for enabling legislation that allows local authorities to create frameworks that align with the specific needs of their cities.
- 1.5.5. It is envisaged that there will be a long period of mixed traffic, where AVs and conventional vehicles co-exist. The consultation paper does not make reference to this transition period but our understanding is that existing regulations will still apply during this period. Further thought is required to answer questions like: How is it envisaged the co-existence of AVs and conventional vehicles to work? How will a smooth transition phase be ensured? What safety implications have been / need to be considered?
- 1.5.6. While it is important to look at the long-term aspects of AVs, the crucial point about 'how safe is safe enough' is with us today, and without immediate action there is a real threat to the continuation of ongoing autonomous vehicles research initiatives.

Responses to Consultation Questions

Below are our responses to the questions raised in the consultation paper “Automated Vehicles: passenger services and public transport. A second joint consultation”. Paragraph and chapter references are to the consultation paper.

2. OPERATOR LICENSING – A SINGLE NATIONAL SYSTEM (CHAPTER 3)

A single national scheme

Consultation Question 1 (Paragraphs 3.82):

Do you agree that Highly Automated Road Passenger Services (HARPS) should be subject to a single national system of operator licensing?

Yes

No

Other

Do not know / not answering

- 2.1. We understand the rationale for a single system of operator licensing that would specifically address HARPS but this raises a number of fundamental questions which require much further thought. It is critical that the fundamental role of local authorities and transport authorities in shaping passenger services to their local needs is maintained in the future.
- 2.2. More specifically, it should be recognised that different environments will pose different challenges when constructing a one size fits all system. What works, for example, for a remote location is unlikely to translate well to a city the size and complexity of London and vice versa. National minimum standards should be set across all areas and for safety standards these should set to a high level but there should also be the option for the rules and requirements to be further strengthened based on city needs as defined by local authorities/regulators. It is also important that local authorities maintain the ability to issue short term licences (to experience the service in operation), set specific conditions to the licence and take immediate action (suspend/revoke) if an issue that contravenes licence conditions is identified.
- 2.3. We also believe that, where possible, existing rules and regulations related to conventional vehicles (e.g. Highway Code) should keep applying to HARPS. This would help in terms of public acceptance and would make the adoption of autonomous vehicles and services easier for the wider public.
- 2.4. Further consideration is required to answer key questions such as: (i) which body should be responsible for the licensing (ii) what powers should local authorities maintain to incorporate specific operational requirements/conditions depending on local needs, and (iii) how would regulators be able to agree minimum service levels (e.g. punctuality, reliability etc.) as part of their initial licensing arrangements?

Consultation Question 2 (Paragraph 3.86):

Do you agree that there should be a national scheme of basic safety standards for operating a HARPS?

Yes

No

Other

Do not know / not answering

- 2.5. Setting minimum safety standards for operating HARPS will be fundamental in the world of AVs. Otherwise, operators would have to negotiate many different regulatory standards (which means increased costs) and lack of consistency. However, it is essential that local authorities and transport authorities maintain the power to strengthen these standards with additional service standards specified at local level, including for example air quality standards, parking restrictions etc.
- 2.6. It is also important that measures are taken to address the issue of cross-border hiring. While a combination of proposals are required to tackle the issues associated with cross-border hiring (see TfL's submission to the DfT Taxi and Private Hire Task and Finish Working Group on this topic), it is also important to set national minimum standards that provide a consistent approach to passenger safety and allow local enforcement officers to enforce these standards in their areas regardless of where the operator, driver and vehicle are licensed.
- 2.7. TfL adopts a 'safety first' approach and is committed to delivering Vision Zero – that by 2041, all deaths and serious injuries will be eliminated from London's transport network. For buses specifically, our Vision Zero policy is that nobody is to be killed on or by a bus by 2030 and is therefore even more pressing that safety is at the heart of any standards. Our first priority is that AVs should be operated safely and it is necessary that appropriate safety standards are established for AV driving systems before passenger services become a mass-market prospect. Safety must cover all those potentially impacted, including passengers, drivers and all other users of the highway including the pavements as well as adjacent spaces.
- 2.8. We acknowledge the operational risks to the efficient running of road networks that large-scale deployment of AVs may pose, and that the safety of AV technologies is not yet fully proven.
- 2.9. We therefore agree that there should be a national scheme of minimum safety standards to ensure the safe operation of AVs, but not just in relation to HARPS. No vehicle should be cleared for use on public highways, regardless of the use case/service model until it has been deemed sufficiently safe; this needs to be based on a formalised and well-documented process that is carried out centrally, and on a national basis. We suggest that the scheme should cover both the design and operational aspects of safety. Safety requirements should cover both physical operation of the vehicle, ongoing software development and cyber security.
- 2.10. The interaction of AVs with the rest of network will be key in the future. It is important that not only the vehicle should be deemed safe, but it also needs to be clear that its interaction with other modes of transport on the network, autonomous or conventional, as well as the network itself (signage etc.) is safe.

- 2.11. We welcome the work currently being carried out for the purposes of developing safety guidelines for control systems (BSI PAS 1880) as well as trials and testing (BSI PAS 1881) and suggest that the development of a national scheme of safety standards should build on these guidance documents.

3. OPERATOR LICENSING – SCOPE AND CONTENT (CHAPTER 4)

Scope of the new scheme

Consultation Question 3 (Paragraphs 4.33)

Do you agree that a HARPS operator licence should be required by any business which:

- (1) carries passengers for hire or reward;**
- (2) using highly automated vehicles;**
- (3) on a road;**
- (4) without a human driver or user-in-charge in the vehicle (or in line of sight of the vehicle)?**

Yes

No

Other

Do not know / not answering

- 3.1. We agree with the overall scope of the new licensing scheme, which we believe should apply to both standard services as well as trials. The concept of ‘hire or reward’ should reflect the test set out in *Albert v Motor Insurers’ Bureau* [1971] 3 WLR 291 to avoid arguments that regulations do not apply if participants are travelling without paying a fare.
- 3.2. We question why the narrower category of ‘a road’ has been chosen rather than ‘a road or other public space’. We agree that most places where HARPS will drive will be roads but considering the pace of change in mobility business models, it is likely that AVs may be used in the future to transfer, for example, people to hotel driveways or hospital car parks, both of which have been held to be public spaces (e.g. hospital car park case: *DPP v Greenwood* [1997] COD 278).
- 3.3. Our own guidance, which aims to promote responsible and safe AV trials in London, applies to both roads and public places. Road traffic provisions such as dangerous driving (Road Traffic Act 1988, s 2) or careless driving (Road Traffic Act 1988, s 3), also apply to both the road and public spaces.

Consultation Question 4 (Paragraph 4.34):

Is the concept of “carrying passengers for hire or reward” sufficiently clear?

Yes

No

Other

Do not know / not answering

- 3.4. We welcome the concept of what amounts to “carrying passengers for hire or reward” being codified in legislation. We consider that the business test in *Albert v Motor Insurers’ Bureau* [1971] 3 WLR 291 should be extended to encompass all scenarios in which the carriage of passengers goes beyond an informal arrangement that has its basis in social or familial kindness. Any new test should also make clear that consideration need not be in the form of a direct or indirect payment in order to

constitute a reward (see for example, *St Albans District Council v Taylor* [1991] RTR 400, 156 JP 120, [1991] Crim LR 852).

Exemptions

Consultation Question 5 (Paragraph 4.46):

We seek views on whether there should be exemptions for community or other services which would otherwise be within the scope of HARPS operator licensing.

- 3.5. Considering whether to allow exemptions for community or other services can be a matter of lengthy debate. We recognise that currently permits granted under section 19 and section 22 of the Transport Act 1985 provide a lower-cost regulatory regime for not-for-profit organisations, enabling them to function where full licensing requirements and costs might not. This provides a vital means of transport for groups such as religious organisations, social welfare groups and non-profit making schools that operate buses for their pupils.
- 3.6. However, while a section 19 or 22 permit exempts the service from requiring a PSV-O licence, permit holders are still responsible for ensuring the safe operation of their vehicles, drivers are suitably trained and correctly licensed and so forth. We are therefore concerned what a HARPS licensing exemption for such services would mean in practice.
- 3.7. Ensuring safety is paramount and allowing exemptions would potentially put this at risk. As such we believe that all services, including services that are exempt from the current operator licensing regime, should fall within the scope of HARPS operator licensing. However, we would welcome further research and impact assessment to better understand how these services may be hindered by the need to apply for HARPS licence, and accept that it may be appropriate to introduce some new derogations in certain circumstances.

Consultation Question 6 (Paragraph 4.54):

We seek views on whether there should be statutory provisions to enable the Secretary of State to exempt specified trials from the need for a HARPS operator licence (or to modify licence provisions for such trials).

- 3.8. While it is important to look at the long-term aspects of HARPS, it is important to stress that some of the AVs issues are already present and need to be addressed quickly to avoid threatening trials in the nearer term. One point that requires further consideration is whether there should be a trial-specific operator licensing regime with less onerous criteria for the purposes of short-term trials.
- 3.9. We welcome the idea of removing barriers to AV testing companies who may wish to carry out trials in controlled and limited circumstances. However, we are concerned that an exemption from the need for a HARPS operator licence would mean that no person or organisation is legally responsible for the safe operation of the vehicle within the scope of future HARPS legislation. We believe that there is a clear benefit for both the regulator and the trial/testing company to experience the process of applying for a licence. But more importantly, this process is essential so that local authorities can be assured that the appropriate safety standards have been fully met.

- 3.10. Currently, in the case of PSVs, any statutory provisions such as Special Vehicle Orders (section 44 of the Road Traffic Act 1988) or experimental PSVs (section 6 of the Public Passenger Vehicles Act 1981) *only* apply to vehicles and not operators.
- 3.11. We believe it is fundamental, both at present and in the future, that trialling organisations engage early with the relevant local authority. It is essential that relevant local authorities (in the case of London, Transport for London and relevant Boroughs) have the powers to set specific trial conditions in line with their local needs and in conjunction with national guidance that provides example criteria that should be met as a minimum in any trial.

Operator requirements

Consultation Question 7 (Paragraph 4.72):

Do you agree that applicants for a HARPS operator licence should show that they:

- (1) are of good repute;**
- (2) have appropriate financial standing;**
- (3) have suitable premises, including a stable establishment in Great Britain; and**
- (4) have a suitable transport manager to oversee operations?**

Yes

No

Other

Do not know / not answering

- 3.12. We agree in principle with the above key requirements for applicants interested in a HARPS operator licence. We suggest, however, that the list of criteria is not solely based on the PSV-related legislation but also takes into careful consideration other vehicle type operator requirements, such as PHVs. For example, the PHV requirement for an applicant to be ‘fit and proper person’ should reach beyond the limit of convictions to also include aspects such as maintaining a policy of employers’ liability insurance, complying with health and safety requirements and so forth. In the HARPS era, applicants for an operator licence should not only continue to meet current requirements but also be required to satisfy additional criteria, such as the ability to maintain vehicles and address issues in real time, and meet with high cyber security standards.
- 3.13. Regarding the suitable premises requirement, we believe it is important for the operator to be able to demonstrate that appropriate management structures, monitoring and reporting systems are in place to ensure compliance with the rules such as speed limits, staff working hours and service reliability. The above is one of the current requirements for a standard PSV operator licence.
- 3.14. We also believe that the PSV operator requirement to have ‘an effective and stable establishment’ in Great Britain, including an operating centre in the relevant traffic area, should also remain in the context of HARPS. It is also a requirement for current PHV operators licensed by TfL to have suitable premises in London. At their licensed premises the operator must keep booking records, records for private hire drivers and vehicles available to them to fulfil bookings, a log of complaints and lost property. It is important that an identified location, within the licensing area, is available where compliance officers can visit and carry out checks on records to ensure that the

operator is complying with the PHV licensing requirements. We therefore believe that applicants for a HARPS operator licence should have suitable identified premises where checks can be made to ensure that they too are complying with the licensing requirements and conditions placed on them. We would also encourage that operators provide the licensing agency secure and reliable digital access to records and documents for remote inspection purposes.

Consultation Question 8 (Paragraph 4.73):

How should a transport manager demonstrate professional competence in running an automated service?

- 3.15. According to guidance and directions under section 4C(1) of the Public Passenger Vehicles Act 1981 (as amended) issued by the Senior Traffic Commissioner for Great Britain, the Certificate of Professional Competence (CPC) must be appropriate for the type of licence being applied for. As such, our view is that the introduction of a new licensing scheme would also need to be accompanied by a new process to demonstrate professional competence in running an automated service.
- 3.16. We feel that further research is required to define what exactly would constitute a comprehensive list of criteria for the purposes of demonstrating professional competence. In doing so, we suggest that the list is aligned with the Senior Traffic Commissioner's guidance in relation to the requirements for transport managers (published in May 2019). However, considering the pace of change in AVs, we expect much more emphasis is given in the future to continuous learning compared to the requirements for transport managers running conventional services.
- 3.17. Under the Public Passenger Vehicles Act 1981, the applicant for a PSV operator's licence must designate a transport manager who is professionally competent (as determined in accordance with paragraph 6 of Schedule 3 of the Act). As a minor comment, we would like to note that, while the concept remains similar, the 'grandfather rights' (i.e. for those able to show that they have continuously managed a road passenger transport operation for 10 years ending in December 2009) have now been replaced by new 'acquired rights' certificates.

Adequate arrangements for maintenance

Consultation Question 9 (Paragraph 4.89):

Do you agree that HARPS operators should:

- (1) be under a legal obligation to ensure roadworthiness; and**
- (2) demonstrate "adequate facilities or arrangements" for maintaining vehicles and operating systems "in a fit and serviceable condition"?**

Yes

No

Other

Do not know / not answering

- 3.18. It is fundamental to the safety of users and the wider public that HARPS operators should be under a legal obligation to ensure roadworthiness, both in terms of the physical condition of the vehicle and the operating systems that run it. Operators must ensure that their vehicles are operated in a fit and serviceable condition (see DVSA's

Guide to maintaining roadworthiness for commercial goods and passenger carrying vehicles, 2018). However, at the current stage we are unsure how exactly roadworthiness will be determined. Questions that will need further thought are: Should there be specific elements in the design of the vehicle that need to be mandated? What additional details need to be captured by the licensing administrator body so that local authorities and insurance companies are confident with?

- 3.19. In terms of maintenance, we believe that operators should not only demonstrate that adequate processes are in place to ensure vehicles and systems are appropriately maintained but should also be held legally responsible for maintaining all aspects of their vehicles in a fit condition at all times. In addition, relevant mechanisms should be in place in the vehicle to enable the operator to identify and address problems in real-time.
- 3.20. The role of the operator becomes particularly important in the HARPS world, since there will be no driver inside the vehicle to notice any problems. Operators should therefore be responsible for ensuring software is updated in a timely manner and checking that all systems are running as intended following these updates.
- 3.21. It is also important to recognise that all elements which are essential for the safe operation of a passenger service need to be covered. For example, dealing with complaints and responding to issues in real time and dealing with allegations of criminal activity.
- 3.22. On the other hand, we anticipate that the frequency of some more traditional routine safety inspections may need to be adjusted (or reduced) as a result of utilising real-time improved automated onboard diagnostic systems. It is too early, however, to reach conclusions on this front and would require much more research and an entire review of the maintenance and inspection regime, which will need to become more dynamic as a process, including live data analysis and software updates.

Consultation Question 10 (Paragraph 4.90):

Do you agree that legislation should be amended to clarify that HARPS operators are “users” for the purposes of insurance and roadworthiness offences?

Yes

No

Other

Do not know / not answering

- 3.23. Consultation Paper 1 concluded that it was not clear how the term ‘user’ would apply in an automated environment and proposed that the law should be amended to clarify that a user-in-charge is a ‘user’ for the purposes of insurance and roadworthiness offences. We agree that the law should be similarly amended to clarify that HARPS operators are ‘users’ for the purposes of insurance and roadworthiness offences. This clarification would be in line with the approach of placing the ultimate responsibility of the safe operation of HARPS with the operator.

Compliance with the law

Consultation Question 11 (Paragraph 4.124):

Do you agree that HARPS operators should have a legal duty to:

- (1) insure vehicles;**
- (2) supervise vehicles;**
- (3) report accidents; and**
- (4) take reasonable steps to safeguard passengers from assault, abuse or harassment?**

Yes

No

Other

Do not know / not answering

- 3.24. We agree with the above recommendation. With regard to insurance, HARPS operators should not only be legally responsible for insuring the vehicles but also checking the extent and relevance of the cover and monitoring the dates of expiry for each vehicle.
- 3.25. Operators should also have a legal duty to adequately supervise their vehicles at all times as well as ensure that remote-control centre staff are trained to mitigate and respond safely to any connectivity or control issues, as CCAV's Code of Practice recommends. It would be a good idea that the body responsible for the new licensing scheme develops some guidance or standards on how supervision can be performed in an effective and safe way. An aspect that needs further thought is whether there should be a limit in the number of vehicles a supervisor would be allowed to supervise at any given time.
- 3.26. We believe that HARPS operators must report any collisions involving a HARPS vehicle, similarly to the current requirement for PSVs, and should also cooperate with police and emergency services as required. We would also expect that operators ensure that HARPS vehicles are equipped with emergency procedures systems to guarantee passenger safety. It is important to collect data on collision rates so that progress of automated vehicles can be developed in terms of understanding the relationship between vehicle miles travelled and incident frequency. We think that the Code of Practice's suggestion that trialling organisations should keep reports on the performance of the trial vehicle, including any incidents, should also apply to HARPS operators. Publishing milestones and reports as part of a public safety case could satisfy this requirement. Our own guidance for AV trials in London sets our standards for regular reporting during a trial; we would suggest that these standards are also adopted for the deployment of HARPS.
- 3.27. We welcome the emphasis on safeguarding passengers, which we see as essential for the safe operation and public acceptance of AVs. Local authorities and transport authorities should have a vital role in ensuring high standards in terms of safeguarding passengers as well as data (i.e. prevent vehicle hacking) are maintained. This is another area where guidance from the new licensing scheme body would be necessary. A key question is whether, in the absence of human presence in the vehicle, the use of alternative monitoring systems such as appropriately managed CCTV (in line with GDPR) can be used as an additional deterrent to prevent harm, as noted by the recent Government's statutory guidance.

Consultation Question 12 (Paragraph 4.125):

Do you agree that HARPS operators should be subject to additional duties to report untoward events, together with background information about miles travelled (to put these events in context)?

Yes

No

Other

Do not know / not answering

- 3.28. It is unclear how an 'untoward event' is defined in the context of AVs; while this term is common in the medical profession (see NHS definition), it would need to be defined in the context of transport if to be used further.
- 3.29. Reporting collisions will be essential for ensuring the safe implementation of AVs. We would suggest that this is extended to 'near misses', incidents where pedestrians or other vehicles may deliberately try to interfere with the vehicle as well as cyber-attack / data-hacking incidents; in other words, we think operators should be required to keep reports on the overall performance of the service, even if no harm actually takes place. We would also expect operators to be under the obligation to provide all operational services a PHV operator currently does to ensure good level of customer service and operational safety.
- 3.30. We welcome the idea of reporting miles travelled without collisions and see how this could enable authorities and regulators to interpret data in a more meaningful way. However, it is worth noting the debate around the quality of data gathered with conflicting views around quantity of miles travelled vs. quality/complexity of miles driven. We feel that this parameter should be further considered when collecting any data for reporting incidents purposes.
- 3.31. We also believe that any reporting requirement would need full consideration of how the information is going to be used, what processing it may require, who it would be reported to and what the consequences of asking for it might be. It is important that any reporting does not lead to data misinterpretations or additional issues with data capture and storage. We would thus recommend a comprehensive international best practice evidence gathering to inform what reporting standards should be set in the UK.

Consultation Question 13 (Paragraph 4.128):

Do you agree that the legislation should set out broad duties, with a power to issue statutory guidance to supplement these obligations?

Yes

No

Other

Do not know / not answering

- 3.32. Considering the pace of change in the AV industry, we agree that the legislation should set out a list of broad principles whilst also retaining a degree of flexibility to enable lessons learnt and best practice to be incorporated into these principles. The

example of guidance to PSV operators, which explains how the licensing system works for operators of public service vehicles with practical examples, is a good demonstration of how this could work in practice. However, it is critical, as highlighted in previous questions, that the ability of transport authorities to set local regulations that legally bind licensed HARPS operators to meet is maintained in any future licensing regime.

- 3.33. More generally, in terms of long-term thinking, it is important that any statutory guidance stresses the importance of speed in response and the need for effective mechanisms to be in place to ensure the wider safety benefits of AVs can actually be realised. In doing so, we believe that lessons can be learned from other sectors such as civil aviation; for example, results of HARPS-related collision investigations should be open to all so that any learnings can quickly turn into safety standards.

Price information

Consultation Question 14 (Paragraph 4.133):

We invite views on whether the HARPS operator licensing agency should have powers to ensure that operators provide price information about their services. In particular, should the agency have powers to:

- (1) issue guidance about how to provide clear and comparable price information, and/or**
- (2) withdraw the licence of an operator who failed to give price information?**

Yes

No

Other

Do not know / not answering

- 3.34. At the current stage of development, it is difficult to predict under what business models HARPS will be used in the future. At the very minimum, however, users should have adequate, transparent and accessible price information before they decide to use these vehicles for their journey. As such, we agree that the HARPS operator licensing agency should have the powers to issue guidance on how to provide such information in a clear and accessible way. For example, in London, we currently mandate that an accurate fare estimate is provided prior to a PHV journey commencing. We also expect a certain degree of accuracy of the price estimate. Failure to ensure this should also lead to a licensing action in the HARPS era.
- 3.35. We believe that such powers should extend to the right to suspend or revoke the licence should operators fail to provide price information about their services.

Who should administer the system?

Consultation Question 15 (Paragraph 4.138):

Who should administer the system of HARPS operator licensing?

- 3.36. We believe it will be challenging but necessary that any administering body has the required expertise and experience of safe operation of passenger services as well as

the resources to efficiently administer, monitor and enforce the safe implementation of the new licensing regime.

- 3.37. As per our response to Question 1, we welcome the idea of setting minimum standards to a high level across all areas independently of the size and fare structure, but it is essential that relevant local authorities (in the case of London, Transport for London and relevant Boroughs) have sufficient powers to further strengthen the rules and requirements based on specific local conditions and needs. Such powers should include the ability to take measures against licensees who contravene licence conditions. Local authorities should be able to suspend or revoke licences or refuse to renew them.
- 3.38. Another angle that needs further thought is ‘what happens when local work is required such as compliance activities to monitor the safety of the service?’ and ‘how will such local work be funded in this case?’. We see this as an essential service to ensure public safety.

Freight transport

Consultation Question 16 (Paragraph 4.140):

We welcome observations on how far our provisional proposals may be relevant to transport of freight.

- 3.39. In line with our Vision Zero approach, we would expect safety to remain the critical concern of both passenger and freight transport. We understand that this consultation is exclusively concerned with passenger services but we believe that freight transport, including both HGVs and delivery vans, would likely also require a review of the existing operator licensing scheme to prepare for the AVs era.
- 3.40. Freight activity is vital to London’s success, with around half of the value of household expenditure in London (£79bn in 2013) relying on freight and contributing £7.5bn to London’s economy. The kilometres travelled by freight and servicing vehicles in London have increased by approximately 39 per cent over the last 25 years (TfL’s freight and servicing action plan, 2019). By 2041, there will be more than two million additional people living in London and an estimated six million extra journeys made every day. We therefore need to ensure deliveries and collections can be made and buildings can be serviced as efficiently as possible.
- 3.41. In the AVs world, freight transport may face some similar challenges to passenger services and it is important that aspects such as data-sharing are common across both types of transport to ensure it works in the public interest. However, moving people rather than goods poses different questions in relation to the contribution towards the Government’s nine principles linked with innovation in urban mobility (see Future of mobility: urban strategy), a topic which requires further thought.
- 3.42. Further consideration is also needed for the potential scenario where AVs could be used in the future to combine people and goods transport within the same vehicle. Finally, aspects such as data management, cyber security, enforcement responsibilities at local level, interaction with other modes of transport and so forth require further thought.

4. PRIVATELY-OWNED PASSENGER-ONLY VEHICLES (CHAPTER 5)

Setting a boundary between HARPS and private leasing

Consultation Question 17 (Paragraph 5.12):

Do you agree that those making “passenger-only” vehicles available to the public should be licensed as HARPS operators unless the arrangement provides a vehicle for exclusive use for an initial period of at least six months?

Yes

No

Other

Do not know / not answering

- 4.1. We understand that the term ‘privately-owned passenger-only vehicles’ is used in this paper to refer to highly autonomous vehicles that are exclusively used by an individual and are therefore not made available to the public.
- 4.2. We acknowledge that, in the world of fully AVs, the distinction between passenger and rental/leasing services becomes blurred. This poses new challenges in terms of setting clear boundaries between HARPS and leasing.
- 4.3. We can see the rationale in adopting the British Vehicle Rental and Leasing Association’s distinction between rental companies and leasing companies. This means using the six months limit as the point in differentiating between HARPS (for up to 6 months) and private leasing (more than 6 months). However, there are still aspects that require further thought. For example, in the scenario where a family hires a vehicle for one month and then renews the arrangement on a monthly basis, the consultation paper suggests that *“this should continue to be seen as a HARPS even if the arrangement lasts for more than six months in all”*. This poses the risk that consumers, to avoid any burdensome responsibilities, may naturally choose the extendable rental option to the leasing alternative.
- 4.4. We believe that adopting a safety-first approach for all vehicles, independently whether they are privately-owned or not, will be essential.

Allocating responsibilities for a privately-owned passenger-only vehicle: placing responsibilities on keepers

Consultation Question 18 (Paragraph 5.40):

Do you agree that where a passenger-only vehicle is not operated as a HARPS, the person who keeps the vehicle should be responsible for:

- (1) insuring the vehicle;**
- (2) keeping the vehicle roadworthy;**
- (3) installing safety-critical updates;**
- (4) reporting accidents; and**
- (5) removing the vehicle if it causes an obstruction or is left in a prohibited place?**

Yes No Other Do not know / not answering

- 4.5. We agree that the person who keeps a privately-owned passenger-only vehicle must insure the vehicle, keep it roadworthy, ensure safety-critical updates are installed, report collisions and remove the vehicle if it causes an obstruction or is left in a prohibited place. However, fully understanding how this would be enforced is critical. Whether the MOT test, which is currently unsuited to AVs, would be adapted for HARPS vehicles or a new method is developed to ensure roadworthiness (possibly involving some form of self-diagnosis), this remains an open question. Also, how would the new licensing regime deal with privately-owned vehicles that are adapted to become autonomous?
- 4.6. We note that, in contrast to HARPS, this question does not address the issue of supervision of privately-owned vehicles. We are concerned that challenges such as a loss of connectivity do not only apply to HARPS. Provided that the keeper of the vehicle is likely not to have the skills and expertise to mitigate and respond safely to any connectivity or control issues, this raises the question 'who should be responsible for supervising a privately-owned passenger-only vehicle?'. We envisage that in the AVs era, there will be an ongoing customer support relationship between the owner/keeper and the vehicle/software manufacturer to ensure such issues are resolved in real time and relevant software updates are provided.

Consultation Question 19 (Paragraph 5.41):

Do you agree that there should be a statutory presumption that the registered keeper is the person who keeps the vehicle?

Yes No Other Do not know / not answering

- 4.7. The terms 'owner', 'keeper' and 'registered keeper' of the vehicle are not always used consistently in road traffic legislation, which may cause some confusion and uncertainty. We therefore welcome the proposal for a statutory presumption that the registered keeper is the person who keeps the vehicle.

Consultation Question 20 (Paragraph 5.42):

We seek views on whether:

- (1) a lessor should be responsible for the obligations listed in Question 18 unless they inform the lessee that the duties have been transferred.**
 - (2) a lessor who is registered as the keeper of a passenger-only vehicle should only be able to transfer the obligations to a lessee who is not a HARPS operator if the duties are clearly explained to the lessee and the lessee signs a statement accepting responsibility?**
- 4.8. Making the lessor the default owner of the responsibility for the obligations listed in question 18 seems reasonable. We agree that should leasing companies wish to

devolve such responsibilities, they need to inform the lessee, clearly explain the obligations being transferred and ensure a statement accepting liability is signed by the lessee. Finally, we believe that leasing companies should also be under the same obligation to explain to the lessee their duties in the uncommon scenario where a lessee becomes the registered keeper of the vehicle at the time of signing the leasing contract (see Mercedes-Benz Trucks 'operating lease' example).

Will consumers require technical help?

Consultation Question 21 (Paragraph 5.47):

Do you agree that for passenger-only vehicles which are not operated as HARPS, the legislation should include a regulation-making power to require registered keepers to have in place a contract for supervision and maintenance services with a licensed provider?

Yes

No

Other

Do not know / not answering

- 4.9. It is essential that a clear provision for the legal responsibility of supervision and maintenance is made to avoid misinterpretation regarding such safety-critical aspects of AVs operation, including cyber security.
- 4.10. It is difficult to predict, at this stage, whether it would be safe for individuals to carry out these tasks themselves, but we strongly suggest a cautious approach is taken, at least until the technology is fully proven and widely adopted by the public. For future-proofing purposes, it is important that there will be powers to enable a periodic assessment of the maturity of the AV technology and cyber security arrangements.
- 4.11. As such, we agree with the suggestion that the legislation should include a regulation-making power to require all registered keepers to contract with a licensed provider for supervision and maintenance purposes of the vehicle. We would suggest that such providers should be required to be licensed as HARPS operator.
- 4.12. One issue that needs further thought is: should there be a limit in the number of private-owned passenger-only vehicles that any given HARPS operator would be allowed to supervise on top of their own HARPS vehicles? A guidance on how supervision duties can be performed in an effective and safe way would be very welcomed.
- 4.13. Finally, there is a question whether the option to contract the supervision of the vehicles to a licensed provider / HARPS operator should be opened up to all passenger-only vehicles, independently whether these are privately-owned or used as HARPS?

Peer-to-peer lending

Consultation Question 22 (Paragraph 5.53):

We welcome views on whether peer-to-peer lending and group arrangements relating to passenger-only vehicles might create any loopholes in our proposed system of regulation.

- 4.14. While we think that the proposals made in this consultation would be appropriate for most peer-to-peer lending and group arrangements, we would suggest that any regulatory changes preserve a degree of flexibility to cater for potential changes in the business models of such services.
- 4.15. It is important that an incremental approach is taken and some flexibility is retained to avoid the need for radical changes to primary legislation in the future as a result of changes in service proposition.

Protecting consumers from unexpectedly high ongoing costs

Consultation Question 23 (Paragraph 5.60):

We seek views on whether the safety assurance agency proposed in Consultation Paper 1 should be under a duty to ensure that consumers are given the information they need to take informed decisions about the ongoing costs of owning automated vehicles.

- 4.16. As mentioned in our response to consultation paper 1, we feel it would be more efficient to tighten existing standards rather than to start a new process.
- 4.17. Similarly to the point about consumer and marketing materials (see question 12 of paper 1), we believe that the duty to ensure consumers are given sufficient information about AVs ongoing costs should remain with the existing responsible agency, in this case the Competition and Markets Authority (CMA). It is important that consumers have the full information required under consumer protection law about what they are paying for and we understand that CMA's enforcement role is, amongst other duties, to guarantee this.

5. ACCESSIBILITY (CHAPTER 6)

What we want to achieve

Consultation Question 24 (Paragraph 6.11):

We seek views on how regulation can best promote the accessibility of Highly Automated Road Passenger Services (HARPS)? In particular, we seek views on the key benefits and concerns that regulation should address.

- 5.1. The introduction of HARPS offers the unique opportunity to shape future road passenger transport services in a way that they are fully accessible and inclusive. It is vital that the use of a strong evidence base on diversity and inclusion is mandated to inform decision making related to any future services. It is also important that adequate consultation and engagement with minority groups is ensured and that an efficient mechanism is in place to ensure ongoing monitoring of real impacts of HARPS on such groups.
- 5.2. Much of the focus of transport policy on disability has traditionally focused on physical mobility and particularly in relation to access of wheelchair or mobility scooters. Fortunately, this trend has been recently changing with increasing consideration being given to the barriers faced by people with mental impairments, including hidden psychological conditions.
- 5.3. We believe that legislation can promote the accessibility of HARPS by ensuring more inclusive physical infrastructure, more accessible information and effective use of assistive technologies. In the absence of human presence, further thought is required about providing passengers with appropriate support to assist them throughout their journey. This is an area where the concept of co-design would be particularly helpful by engaging early with accessibility organisations and to capture older and disabled users' needs. It is essential that the primary focus is that HARPS are accessible for all and, where needed, assistance is provided by appropriately trained HARPS staff.
- 5.4. Considering the limitations of the Public Service Vehicles Accessibility Regulations (PSVAR) 2000, they could only be used as guidance when a new set of accessibility standards and rules are introduced for HARPS. PSVAR 2000 only apply to buses and coaches which can carry more than 22 passengers, first used on or after 31st December 2000 and operating a local or scheduled service. We firmly believe, however, that any legislation on accessibility should cover the whole range of HARPS and should be irrelevant of the size of the vehicle.
- 5.5. It is worth noting that all London taxis are not only required to be wheelchair accessible but also carry a range of other accessibility features. There is a genuine opportunity to make a real step change and define minimum accessibility standards for HARPS, if not all AV vehicles.
- 5.6. Consideration will also need to be given as to how the English National Concessionary Travel Scheme (ENCTS) would be applicable, and for what kinds of vehicles/services, in the HARPS world.
- 5.7. It is important that any new set of accessibility rules will be flexible and updated in the light of increasing experience. It is also paramount that relevant stakeholder groups are considered throughout the design and testing process of AV services.

Core obligations under equality legislation

Consultation Question 25 (Paragraph 6.31):

We provisionally propose that the protections against discrimination and duties to make reasonable adjustments that apply to land transport service providers under section 29 of the Equality Act 2010 should be extended to operators of HARPS. Do you agree?

Yes

No

Other

Do not know / not answering

- 5.8. We agree with the paper's proposal to extend the scope of part 3 of the section 29 of the Equality Act 2010 to apply to HARPS. Our view is that such an amendment would be a positive step towards using regulation to promote accessibility and inclusion from the outset of implementing HARPS.
- 5.9. It is worth noting that Section 165 of the Equality Act 2010 obliges drivers of wheelchair-accessible taxis and private hire vehicles to carry wheelchair users and provide mobility assistance without additional charge. In the absence of drivers in HARPS, will the provision of mobility assistance be lost or will it be achieved via other means (e.g. technological features)? This is critical to ensure older and disabled passengers are not left behind in the AVs world and needs further thought.
- 5.10. We would strongly suggest that the view of disability groups on the sufficiency of section 29 of the Act is sought to ensure any new standards are co-designed to achieve a genuinely accessible HARPS provision.

Specific accessibility outcomes and the whole journey approach

Consultation Question 26 (Paragraph 6.106):

We seek views on how regulation could address the challenges posed by the absence of a driver, and the crucial role drivers play in order to deliver safe and accessible journeys. For example, should provision be made for:

(1) Ensuring passengers can board and alight vehicles?

(2) Requiring reassurance when there is disruption and accessible information?

(3) Expansion of support at designated points of departure and arrival?

Yes

No

Other

Do not know / not answering

- 5.11. We agree with the proposal that provision should be made to ensure passengers can board and alight vehicles. However, we believe this should go beyond the physical boarding/alighting and ensure digital exclusion is prevented; in other words, ensuring every stage of a HARPS journey is accessible, including the booking process, payment, providing review/feedback and so forth.

- 5.12. It is essential that wheelchair passengers and passengers with mobility devices have additional assistance to enter the vehicle and orientate themselves. They also need assistance to secure any wheelchairs and mobility devices and, separately, secure themselves, either in a seat or while seated in a securely anchored wheelchair. They would also benefit from a range of accessibility features built into the HARPS vehicle, e.g. high visibility features, additional lighting, intercom systems to allow interaction with the HARPS operator/and or assistants and CCTV allowing the operator to view the inside of the vehicle for additional safety and security.
- 5.13. Making provision for requiring reassurance when there is disruption and providing accessible information is vital for older and disabled people. Additional information and mobility assistance will be key when the normal operation of HARPS is disrupted. In the world of AVs, the role of communication systems will be of great importance for everyone, especially for older and disabled people. It is therefore important that the human-machine interface is designed to be inclusive, intuitive and simple.
- 5.14. Expansion of support at designated points will also be very useful; such support may vary from physical presence of staff to more technological solutions, for example by means of linking the passenger to remote staff or in the form of artificial intelligence.
- 5.15. In the AVs world, it is essential that certain aspects need to be regulated to ensure safe and accessible journeys for everyone, including but not limited to:
- Risk assessments for drop off and pick up points to ensure safety
 - Real-time response processes for queries / demands from on street officers, police, emergency services etc.
 - Investigation and resolution of complaints, including working with the police for any allegations of criminal activity.
 - Ability for customer to speak to the operators while the journey commences.
- 5.16. Finally, further considerations need to be given as to enhanced requirements should ride-sharing take place in the vehicle.

Developing national minimum accessibility standards for HARPS

Consultation Question 27 (Paragraph 6.109):

We seek views on whether national minimum standards of accessibility for HARPS should be developed and what such standards should cover.

- 5.17. While we welcome the idea of developing national minimum standards of accessibility for HARPS, we feel that it will be impossible to know what such standards should cover at this very early stage. We thus believe that standardisation needs to be outcome-based rather than outputs-based.
- 5.18. The standards of accessibility currently in place for purpose-built London taxis, accessible London PHVs and London buses, including Dial-a-Ride services, provide a reasonable baseline that could be used to build on and define minimum standards of accessibility for HARPS. These services provide a range of accessibility features which provide support to millions of ambulant, elderly and disabled passengers. Similar standards and equipment are utilised in transport services around the UK and are well recognised by operators and passengers, DfT, DVSA, etc.

- 5.19. Developing a set of minimum standards will also ensure a degree of consistency which in turns could help reduce the levels of anxiety for older and disabled passengers. In the future, compliance with these minimum standards should be made a condition of HARPS operator licensing.
- 5.20. We ought to make sure, however, that such standardisation does not inhibit innovation and we would thus encourage an initial phase of design experimentation and co-creation to explore new solutions.

Enforcement mechanisms and feedback loops

Consultation Question 28 (Paragraph 6.124):

We seek views on whether operators of HARPS should have data reporting requirements regarding usage by older and disabled people, and what type of data may be required.

Yes

No

Other

Do not know / not answering

- 5.21. Whether reporting requirements should extend beyond collisions to usage data such as passenger numbers and trip characteristics can be a matter of lengthy debate. In the absence of a baseline, at least at the beginning, the efficient usage of such data would be equally challenging.
- 5.22. As integrated transport authority, we can see the benefit of collecting users' data and utilising it to monitor performance, identify any problems and seek solutions. We see no reason why the usage data should be restricted to older and disabled users. It would be particularly useful, for example, to see anonymised trip data such as day, time, location of pickups and drop-offs, waiting time, trip mileage and trip duration. We also think that dead mileage data (i.e. vehicle running without passengers) will be key information when considering the wider impact of HARPS on congestion and the wider network.
- 5.23. We therefore suggest that powers should be considered for making wider data available to help transport and local authorities effectively run their networks. However, considering that this would be a significant change to the current reporting requirements, we should make sure that any data reporting does not go against the principles of an open and competitive market.

6. REGULATORY TOOLS TO CONTROL CONGESTION AND CRUISING (CHAPTER 7)

Traffic regulation orders

Consultation Question 29 (Paragraph 7.23):

We seek views on whether the law on traffic regulation orders needs specific changes to respond to the challenges of HARPS.

- 6.1. Given the underway initiative regarding TROs, more specifically the review of relevant legislation (TRO Alpha project) and the creation of a standard TRO digital form (Discovery project), we believe it is best to wait for the findings of these initiatives. However, it is essential, as mentioned above, that local authorities have sufficient powers (through TROs, road pricing, quantity restrictions etc.) to control congestion and empty-running.

Regulating use of the kerbside

Consultation Question 30 (Paragraph 7.59):

We welcome views on possible barriers to adapting existing parking provisions and charges to deal with the introduction of HARPS. In particular, should section 122 of the Road Traffic Regulation Act 1984 be amended to expressly allow traffic authorities to take account of a wider range of considerations when setting parking charges for HARPS vehicles?

Yes

No

Other

Do not know / not answering

- 6.2. The purposes for which functions under the RTRA 1984, including imposing parking charges, may be used are set out in section 122 of the Act. Parking charges may be used *“to secure the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians) and the provision of suitable and adequate parking facilities on and off the highway or, in Scotland, the road.”* The permitted purposes of parking charges are relatively wide, including but not limited to the cost of provision of on-street and off-street parking, the cost of enforcement, the need to “restrain” competition for on-street parking, encouraging vehicles off-street, securing an appropriate balance between different classes of vehicles and users, and selecting charges which reflect periods of high demand (*Djanogly v Westminster City Council* [2011] RTR 9).
- 6.3. Section 122 is not an enabling provision and would therefore need to be amended to allow highway/traffic authorities to take into account matters which are pertinent to AVs, for example to avoid empty running. However, at this stage it is difficult to specify which tools will be more effective in controlling congestion and discouraging empty-cruising of HARPS in the future. Further thought is required to understand the potential impact of individual regulatory tools on HARPS services.

Road pricing

Consultation Question 31 (Paragraph 7.86):

We seek views on the appropriate balance between road pricing and parking charges to ensure the successful deployment of HARPS.

- 6.4. Any deployment of fleets of new vehicles on London's roads raises the prospect of increased congestion. In addition, empty running or cruising will be one of the main risks of HARPS deployment in the future.
- 6.5. While road pricing could help control congestion that HARPS may cause in town centres in the future, the aim should be to influence the way they will be used and not to prevent them. It is important that an appropriate balance between road pricing and parking charges is achieved to ensure successful deployment of HARPS, considering that often these two different approaches are associated with conflicting interests. We believe, however, that it is very early to define at the current stage what would constitute an appropriate balance.

Consultation Question 32 (Paragraph 7.87):

Should transport authorities have new statutory powers to establish road pricing schemes specifically for HARPS? If so, we welcome views on:

- (1) the procedure for establishing such schemes;
- (2) the permitted purposes of such schemes; and
- (3) what limits should be placed on how the funds are used.

Yes

No

Other

Do not know / not answering

- 6.6. As with parking charges, it is important that traffic authorities have sufficient powers to take account of a wide range of considerations should they decide to set road pricing schemes specifically for HARPS in the future.
- 6.7. Should AVs be deployed for passenger services, it will be critical that they do not circulate without passengers, as we highlight in our CAV statement. Consideration should be given to how fleet operators can be incentivised to refrain from deploying AVs in this way. This may be via changes to how they are licensed, and what charges are payable for such vehicles running without passengers while in service. Charging based on occupancy levels to avoid empty running could be one way forward but such a solution would likely depend on making data-sharing of operators' occupancy data part of the licensing conditions.
- 6.8. With regard to the use of funds from road pricing schemes, we suggest that a similar approach to our road user charging policy is taken and ensure that such funds are only used for relevant transport purposes.

Quantity restrictions

Consultation Question 33 (Paragraph 7.97):

Do you agree that the agency that licenses HARPS operators should have flexible powers to limit the number of vehicles any given operator can use within a given operational design domain for an initial period?

If so, how long should the period be?

Yes

No

Other

Do not know / not answering

- 6.9. It is important that sufficient powers should be given to the licensing agency and local transport authorities to enable quantity restrictions will be in place in the HARPS era.
- 6.10. We agree that, at least during the initial deployment phase, the HARPS operators licensing agency should have flexible powers to limit the number of vehicles any given operator can use within a given operational design domain. This would allow more entrants to the market and lead to a healthy competition. However, if such a power is exercised, it is important that it will be managed appropriately to ensure it does not limit the users' options, push the costs up or negatively affect operators.
- 6.11. Once the technology is fully proven and sufficient data is gathered, it should be in the discretion of the local authorities to decide whether the limit should remain or be relaxed to enable further deployment of HARPS vehicles.
- 6.12. At this stage, it is difficult to specify the length of this initial period but we would strongly suggest a cautious and safety-first approach is taken.

Consultation Question 34 (Paragraph 7.120):

Do you agree that there should be no powers to impose quantity restrictions on the total number of HARPS operating in a given area?

Yes

No

Other

Do not know / not answering

- 6.13. We disagree with the proposal and believe that it is essential that local authorities will be allowed to manage the number of total HARPS and consider varying the limit depending on the geographical area and the existing provision of public transport to ensure HARPS are actively contributing towards achieving the city's transport goals.
- 6.14. Early analysis suggests that without appropriate policy interventions to control growth, AVs could increase road congestion, discourage active travel and worsen particulate air pollution. At this stage, however, it is impossible to predict how quickly HARPS vehicles will become a common place in various use cases.
- 6.15. There is some controversy over the impacts of quantity restrictions and how to decide what an appropriate cap on numbers would be. Some argue that such controls may

lead to reduced choice, increased waiting times or barriers to new entrants. On the other hand, voices for are based on the argument that such restrictions help authorities address issues around congestion, air quality and parking.

- 6.16. We believe that licensing authorities should be able, where this is in the public interest, to set quantity restrictions. It is also essential that provision of such powers is legislated upfront, rather than facing the challenge of managing this retrospectively. In the long term, it should be possible to ease or even lift quantity restrictions; however, it is important that lessons from similar areas where there haven't been powers to manage numbers are learned and that appropriate powers are available.

7. INTEGRATING HARPS WITH PUBLIC TRANSPORT (CHAPTER 8)

The current system of bus regulation: HARPS as mass transit

Consultation Question 35 (Paragraph 8.92):

Do you agree that a HARPS vehicle should only be subject to bus regulation:

- (1) if it can transport more than eight passengers at a time and charges separate fares; and**
- (2) does not fall within an exemption applying to group arrangements, school buses, rail replacement bus services, excursions or community groups?**

Yes

No

Other

Do not know / not answering

- 7.1. The consultation paper asks when should a HARPS hold either a Local Service Agreement or Service Permit within London or another franchised system. As a starting principle, we agree with the suggestion in this question that bus regulation should only apply to HARPS vehicles if it can transport more than 8 passengers at a time and charges separate fares and does not fall within the exemption groups (i.e. the criteria that is applicable today for bus regulation in London). The framework for regulating buses in London should be the same whether for HARPS vehicles or more conventional vehicles as is now.
- 7.2. However, the focus on specific passenger numbers seems inconsistent with the overall approach at the outset of the consultation paper whereby it states that *“This approach avoids having different licensing regimes applying depending on the number of seats the vehicle may have, or on the basis of whether separate fares are charged”*. There is potentially a risk that focusing on 8 passengers could be limiting in the future. It could be that vehicle size, type or indeed the operational design domain are more important factors when considering bus regulation in London in the future. This question poses a much wider discussion about vehicle classifications and whether a more holistic review is needed. It is important that any changes applied to HARPS vehicles are consistent across all passenger vehicle types (PHVs, PSVs or LSPs) and that the arbitrary idea of 8 vs 9 passengers is not restrictive of future regulation.
- 7.3. More generally it is worth emphasising that a city the size and complexity of London means that a generic approach to HARPS bus regulation may not be as simple as a remote rural location and therefore might need further consideration. London carries over 6 million bus passengers a day, involves over ~700 routes and around 19,000 bus stops. This complexity should not be underestimated.
- 7.4. With regards to exemptions (see our response to question 5), we feel that all services, including services that are exempt from the current operator licensing regime, should fall within the scope of future HARPS operator licensing. Given that for example, section 19 and section 22 permit holders (under PSV Act 1981) are still responsible for ensuring the safe operation of their vehicles, any exemptions in the HARPs world could potentially put the safety of passengers or other road users at risk.

Consultation Question 36 (Paragraph 8.94):

We welcome views on whether any particular issues would arise from applying bus regulation to any HARPS which transports more than eight passengers, charges separate fares and does not fall within a specific exemption.

- 7.5. It is worth clarifying that our response below does not reflect current plans but rather identify key points that would need to be considered when licensing future HARPS. As the Mayor's Transport Strategy highlights, shaped in the right way, connected and autonomous technology could make high-occupancy services more attractive and contribute to a shift away from car use.
- 7.6. The response to question 35 highlights some wider reflections on this question and in particular whether DfT vehicle classifications need further reviewing in a HARPS context.
- 7.7. Furthermore, it is important to consider different types of occupancy. For example, buses in London do not have seatbelts and include standing passengers. It is therefore paramount that any HARPS regulation considers the protection of internal occupants and how this might vary depending on the vehicle size.
- 7.8. It is also worth acknowledging that any transition to fully AVs will most likely be very gradual. It is thus conceivable that a bus operator could hold both a conventional PSV operator licence and also a HARPS operator licence. It is therefore important to understand if there are any risks or concerns with operators holding dual licences.
- 7.9. More generally in a bus context, HARPS, in the absence of a driver, could present issues for vulnerable individuals, as highlighted in Chapter 6 of the consultation report. For example, how would a wheelchair ramp be deployed? Or how would a visually impaired passenger or individual with dementia be reassured? Finally, while currently the driver has an important role to play in managing fares, it is difficult to envisage how this would work in the AVs world without mass fare evasion taking place.

Consultation Question 37 (Paragraph 8.95):

We welcome views on whether a HARPS should only be treated as a local bus service if it:

- (1) runs a route with at least two fixed points; and/or**
- (2) runs with some degree of regularity?**

- 7.10. Defining whether/when a HARPS should be treated as a local bus service is a very complicated topic and would require much further consideration.
- 7.11. Regarding point 1, section 2(2) of the Transport Act 1985 specifies that for a current bus service to be local, passengers must be able to alight within 15 miles, as measured in a straight line. This point seems to have been removed from this proposal.
- 7.12. Regarding point 2, the regularity condition would mean that any HARPS that operate in flexible/demand-responsive way would fall outside the bus regulation, which differs to the current regime (see flexible services or London Service Permits) and would mean a step back, given the availability of DRT technology and applications. This could be limiting if more flexible services are to come to the market. It also raises the question how this relates to community related services.

*Encouraging mass transit: Mobility as a Service***Consultation Question 38 (Paragraph 8.109):**

We seek views on a new statutory scheme by which a transport authority that provides facilities for HARPS could place requirements on operators to participate in joint marketing, ticketing and information platforms.

- 7.13. At the time of writing, there is no universally accepted definition of Mobility as a Service (MaaS). The term has largely been associated with some aspirational trials, which to date have delivered limited empirical evidence.
- 7.14. Introducing quality partnership schemes on the basis that a transport authority provides facilities for HARPS and sets specific service standards for operators may lead to improved collaboration. However, it is unclear what the ‘facilities for HARPS’ would entail and how such a new statutory scheme would work, particularly in London where TfL already freely supply the market with Open Data, contactless cards are already accepted across public transport services and a well-integrated ticketing system is already in place.
- 7.15. There are also potential threats to the use of active and sustainable modes that must be balanced in any statutory scheme. For instance, by simplifying access to private road-based services, users may begin to switch trips away from walking, cycling and public transport to the detriment of network efficiency, the environment and public health. As such, we believe there is a fundamental role for local and regional transport authorities in shaping these new transport services to their cities’ needs. This will help cities to maximise the potential benefits for their populations as a whole, while minimising unintended consequences.