

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

Response to:

## Automated Vehicles: Consultation Paper 2 on Passenger Services and Public Transport

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

## About Tim Marlow

Tim Marlow is leading authority on the impact to the insurance industry of the introduction of Connected and Autonomous Mobility, having detailed knowledge of developments in ADAS, Automated Driving Systems and vehicle connectivity and the potential consequences for motor insurance product design, rating, distribution, customer journey and claims handling.

He is a co-author of a number of joint ABI/Thatcham documents on automated vehicles including "Defining Safe Automated Driving - Insurer Requirements for Highway Automation", setting out the insurance industry view in this area. He also provided input and advice to officials at the UK DfT and C-CAV in the drafting of the Autonomous and Electric Vehicles Act 2018.

Tim was formerly Head of Autonomous and Connected Vehicle Research at Ageas and was responsible for the Ageas response to the first Law Commission consultation on Autonomous vehicles and also contributed to the joint ABI and Thatcham Research response.

## Executive Summary

The consultation is a really useful document that explores and suggests ways forward in relation to all the main issues relating, both to the provision of HARPS within a Mobility as a Service framework, and to fully automated vehicles in private ownership. What is clear from the document is the level of complexity in relation to regulation of current equivalent manually driven vehicles and their operators, from private hire all the way through to double-decker buses. It would certainly be desirable if HARPS regulation could be simplified, particularly in respect of the number of regulators involved.

In addition to providing responses to each of the questions raised in the consultation, I've also added a couple of sections immediately below on **Automated Valet Parking**, where we may need to address an issue relating to the requirement in relation to the User-in-Charge and on **Categories of Vehicle and Service** in relation to 'Path 2' vehicles that do not have manual controls or a requirement for a User-in-Charge.

## Automated Valet Parking

The consultation paper states in a number of places that a User-in-Charge would be in line of sight whilst the vehicle undertakes its parking manoeuvre however this would not necessarily be the case. With genuine Automated Valet Parking, which is current being trialled by the AVP CAV project led by Parkopedia and is likely to be available within the next year or so from some OEMs, the car will park itself unaided when the user gets out at a drop-off zone, presses a button on their phone app and walks away. There are two main ways in which the system will work in practice:

1. There will be systems where movement of the car is controlled by a system within the car park infrastructure – there is no User-in-Charge once they have walked away and legal responsibility should then lie principally with the car park operator and also potentially with the ADSE
2. There will be systems where movement of the car is controlled entirely by the AVP system and relies on detailed mapping of the car park plus sensors on the vehicle – again, there is no

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

User-in-Charge once they have walked away but here legal responsibility should lie entirely with the ADSE

The AVP system “launched” by Daimler in 2019 in Germany is of the type that relies on the car park infrastructure but the one that’s currently being trialled in the UK is of the type that is controlled entirely by the AVP system. Neither of these types of system presents a problem from an insurance point of view, as both of the automated scenarios should be adequately covered by the AEV Act and both offer a potential recovery route, either from the ADSE or the car park operator (or both).

From a legal point of view, probably all that needs to happen is to make clear that a vehicle that would normally require a User-in-Charge can operate without one in certain strictly controlled conditions, i.e. within designated parking facilities at speeds no higher than 10 Km/h – which is how the Parking Driving Domain is defined within the ABI/Thatcham Defining Safe Automated Driving document. The User-in-Charge is still responsible for instructing the vehicle to go and park itself and for requesting that the vehicle comes to the designated point to pick them up again however, from the point the button on the smartphone app is pressed to instruct the car to park until the point it is returned and the driver’s door opened, the car is in an automated mode and legal responsibility would rest with the ADSE and/or the car park operator.

For car parks where movement of the car is controlled by a system within the car park infrastructure, we may also need to consider what monitoring and intervention may be required by the car park operator and what level of competence is required from its employees. For systems where movement of the car is controlled entirely by the AVP system and relies on detailed mapping of the car park plus sensors on the vehicle, then it may be necessary for the vehicle to be able to contact or summon the User-in-Charge if it gets into difficulties and it’s also likely there would need to be an obligation on the User-in-Charge to ensure that no persons (or animals) are left in the vehicle when it is instructed to park.

## Categories of Vehicle and Service

The consultation document describes a number of potential types of vehicle, ownership and service and then seeks responses on how HARPS regulation should apply to each of these. Whilst I have given separate responses against each relevant question in the consultation, it may be that the best approach would be to treat these different services as sub-categories of HARPS and then consider how each may be dealt with in terms of legal responsibilities of the operator and vehicle user/keeper. The table below is an initial attempt to do this:

<b>HARPS Sub-category</b>	<b>Operator Responsibility</b>	<b>User/Keeper Responsibility</b>
Automated Vehicle in Private Ownership (including lease or hire for more than <i>n</i> days)	Operator here may be the ADSE (if owned outright) or lease/hire company  Alternatively, the keeper may engage a suitably competent person or organisation to provide servicing and to	Insuring the vehicle  Ensuring a contract is in place with an appropriate and competent person or organisation to maintain the vehicle in a roadworthy condition

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

	<p>maintain the vehicle in a roadworthy condition</p> <p>Installing safety-critical updates (normally should be ADSE even if service contract in place with another competent person or organisation)</p> <p>Probably unnecessary for the operator to have premises in these circumstances</p>	<p>Reporting accidents (although DSSAD mechanism should be used as far as possible)</p> <p>Removing the vehicle if it causes an obstruction or is left in a prohibited place</p>
<p>Automated Vehicle in Community or Syndicate Ownership (including lease or hire for more than <math>n</math> days)</p>	<p>Operator here may be the ADSE (if owned outright) or lease/hire company</p> <p>Alternatively, the keeper may engage a suitably competent person or organisation to provide servicing and to maintain the vehicle in a roadworthy condition</p> <p>Installing safety-critical updates (normally should be ADSE even if service contract in place with another competent person or organisation)</p> <p>Probably unnecessary for the operator to have premises in these circumstances</p>	<p>Insuring the vehicle</p> <p>Ensuring a contract is in place with an appropriate and competent person or organisation to maintain the vehicle in a roadworthy condition</p> <p>Reporting accidents (although DSSAD mechanism should be used as far as possible)</p> <p>Removing the vehicle if it causes an obstruction or is left in a prohibited place</p>
<p>Auto Drive Hire (exclusive use of single automated vehicle for multiple journeys up to <math>n</math> days)</p>	<p>Insuring the vehicles</p> <p>Maintaining vehicles in a roadworthy condition (this may be contracted out to a suitably competent person or organisation)</p> <p>Installing safety-critical updates (normally should be ADSE even if service contract in place with another competent person or organisation)</p> <p>Operator should have suitable premises (possible exception)</p>	<p>Keeper will be the operator</p> <p>User may also take out insurance, e.g. to cover deductible or own damage if operator does not insure this aspect</p> <p>User has responsibility for reporting accidents, including to the operator (although DSSAD mechanism should be used as far as possible)</p>

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

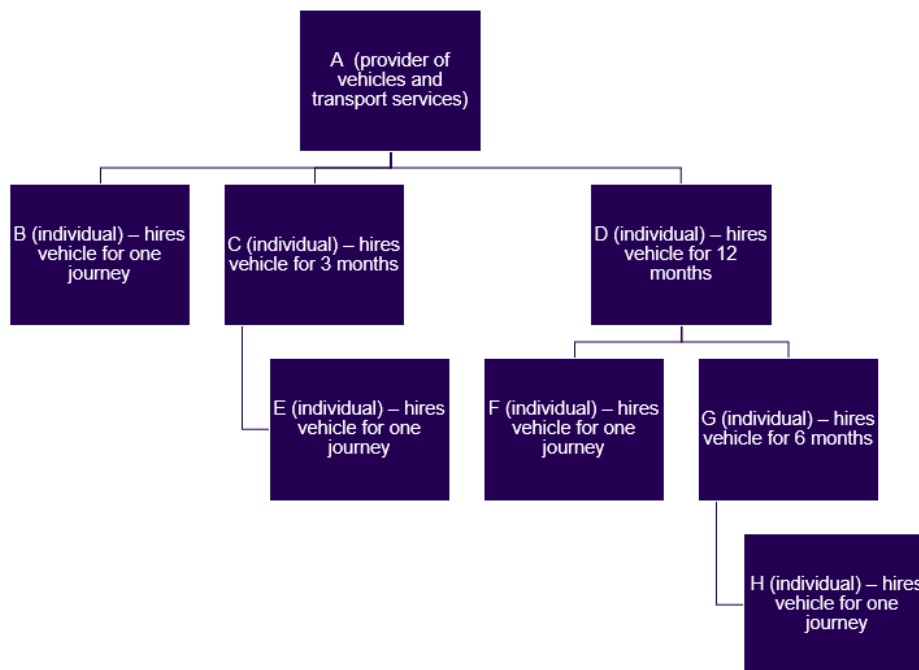
	<p>for small operators where service and maintenance is contracted out)</p> <p>Removing the vehicle if it causes an obstruction or is left in a prohibited place</p>	
<p>Standard HARPS Operation (single journey on-demand robotaxi or POD ride)</p>	<p>Insuring the vehicles</p> <p>Supervising vehicles</p> <p>Maintaining vehicle in a roadworthy condition (this may be contracted out to a suitably competent organisation)</p> <p>Installing safety-critical updates (normally should be initiated by ADSE if ADSE is not the operator)</p> <p>Operator should have suitable premises (possible exception for small operators where service and maintenance is contracted out)</p> <p>Removing the vehicle if it causes an obstruction or is left in a prohibited place</p> <p>Reporting accidents (although DSSAD mechanism should be used as far as possible)</p>	<p>Keeper will be the operator</p> <p>Users may insure journeys but this would be more akin to travel insurance</p>
<p>HARPS Operation – Larger Vehicle (&gt;8 seats)</p>	<p>Insuring the vehicles</p> <p>Supervising vehicles</p> <p>Maintaining vehicle in a roadworthy condition</p> <p>Installing safety-critical updates (normally should be initiated by ADSE if ADSE is not the operator)</p> <p>Operator should have suitable premises</p> <p>Removing the vehicle if it causes an obstruction or is left in a prohibited place</p>	<p>Keeper will be the operator</p> <p>Users may insure journeys but this would be more akin to travel insurance</p>

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

	Reporting accidents (although DSSAD mechanism should be used as far as possible)	
--	--	--

There is also the question of the length of time of lease or hire that determines the boundary between private ownership and HARPS operation (Question 17). In the table above I've referred to  $n$  days, rather than assuming six months, as a shorter period may be more appropriate. There may also be multiple parties in an ownership and leasing chain as described in the diagram below, which is reproduced from the response to Question 22 in the joint ABI/Thatcham response to the consultation:



The key requirement however is to ensure that all parties involved in the leasing and hiring chain have agreed and documented roles and responsibilities and that none of these responsibilities “slip down the cracks”.

## Consultation Questions and Responses

### CHAPTER 3: OPERATOR LICENSING - A SINGLE NATIONAL SYSTEM

#### A single national scheme Consultation Question 1 (Paragraph 3.82):

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

1. **Response:** Yes, to ensure that there is a consistent approach nationwide, it will be necessary to avoid having multiple licensing authorities and opt for a single authority covering the whole of the

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

*UK. The only possible exception to this may be London, where licensing could come under the auspices of Transport for London.*

## Consultation Question 2 (Paragraph 3.86):

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

2. **Response:** *Yes, similarly it will be essential to have a consistent approach to safety nationwide and therefore a national scheme of basic safety standards for operating a HARPS.*

## CHAPTER 4: OPERATOR LICENSING - SCOPE AND CONTENT

### Scope of the new scheme Consultation Question 3 (Paragraph 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)?
3. **Response:** *Yes, but it will also be necessary to clarify the position in relation to HARPS that use POD vehicles that may operate in what are otherwise pedestrian areas. In other words, it may be necessary to define a 'road' explicitly, rather than rely on what's in the RTA and the courts' subsequent interpretation of it.*

### Consultation Question 4 (Paragraph 4.34):

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

4. **Response:** *Yes, this already well established and understood (including within insurance policies) and should not need any further clarification.*

### 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.

5. **Response:** *It would be desirable to keep the level of exemptions to a minimum however there are certain conditions that would be difficult for community groups to meet and this is something that is also likely to be applicable to HARPS vehicles in private or small community 'syndicate' ownership, as outlined in the **Categories of Vehicle and Service** section. It therefore makes sense to have a specific sub-category of operator, and therefore licence, where certain conditions, e.g. the requirement for a professional transport manager, would be relaxed. One condition of the HARPS operator licence that would certainly not be relaxed however would be the requirement to insure the vehicle(s)!*

### Consultation Question 6 (Paragraph 4.54):

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

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).

6. **Response:** *These types of trials will require an extremely robust safety regime to have been put in place before they are allowed to go ahead and it may therefore make sense for them to be a trial of the licensing system as well as the vehicles and their operation. Exemption would not therefore be the most sensible approach however modification of licence provisions may be required and may indeed lead to updates to conditions to be applied in the HARPS operator licence more widely.*

## 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?
7. **Response:** *Yes, this is a suitable starting point for all operators, other than those that fall into the Community or Syndicate Ownership sub-category as outlined in the **Categories of Vehicle and Service** section (see also response to Question 5), which would probably omit (3) and (4).*

## Consultation Question 8 (Paragraph 4.73):

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

8. **Response:** *As outlined in the document, there will be very few people with experience of operating automated vehicles and it is unlikely there would be an exam they could pass. What therefore may make the most sense is to require a level of knowledge of how the vehicles operate, the level of expected customer (rider) traffic and how to deal with accidents and emergencies. This could be assessed on the submission of both a business case and safety case for the proposed operation.*

## 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”?
9. **Response:** *Yes, roadworthiness and maintenance must both be key requirements. In the case of the Community and Syndicate Ownership sub-category outlined in the **Categories of Vehicle and Service** section, it should be sufficient to ensure that a contract is in place with an appropriate and competent person or organisation to maintain the vehicle(s) in a roadworthy condition and for maintenance to be carried out, as and when required.*

## Consultation Question 10 (Paragraph 4.90):



# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

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

10. **Response:** *Yes, this will give equivalence to existing legislation and should apply across all ‘the sub-categories described in the **Categories of Vehicle and Service** section.*

## **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?

11. **Response:** *Yes, the HARPS operator should carry primary responsibility for supervising and insuring vehicles and to report accidents and therefore should have that legal duty. However, whilst it is reasonable for HARPS operators to take reasonable steps to safeguard passengers from assault, abuse or harassment, exactly how this will translate into a legal duty and/or what the liability implications are likely to be requires further consideration. From an insurance perspective, the design of the HARPS operator’s cover will need careful consideration and would be likely to require the inclusion of an element of ‘passenger to passenger’ liability.*

## **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)?

12. **Response:** *Incidents involving the vehicle should be reported automatically via the DSSAD mechanism that is currently being defined and agreed at UNECE and to which the ABI/Thatcham have provided significant input. It would also be useful to track vehicle mileage travelled, in order to understand the level of such incidents per [1 million] miles. If the vehicles also have cabin monitoring (e.g. cameras) then incidents could also be extended to include those involving passenger behaviour. Use of external vehicle monitoring may also mean that ‘near misses’ can also be detected and acted upon.*

## **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?

13. **Response:** *Yes, this is probably the correct approach at this stage.*

## **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?

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

14. **Response:** *It will be important for the future operation of Mobility as a Service that clear and comparable pricing information is provided at the point of enquiry/booking but it is to be expected that pricing will be dynamic and therefore only accurate at that point in time for the journey in question. Various subscription-based services and/or 'season tickets' are also likely to be available which will enable the user to select options based on anticipated usage over a particular period. It would be difficult, if not impossible, for an operator not to give pricing information and expect to obtain business and therefore the threat of licence withdrawal is probably largely unnecessary.*

## Who should administer the system? Consultation Question 15 (Paragraph 4.138)

Who should administer the system of HARPS operator licensing?

15. **Response:** *It would be sensible for the licensing of HARPS operators to come under the same organisation that it is responsible for safety assurance of the vehicles, although the practicalities of bringing together skillsets from the likes of the DVSA/VCA and public transport operator licensing may be appreciable. If not a single organisation, the DfT will need to ensure that the two organisations work closely together to foster an overall culture of 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.

16. **Response:** *There are two main aspects to consider here – with the exception of a requirement to take reasonable steps to safeguard passengers from assault, abuse or harassment, the principles that apply to HARPS operators should be equally applicable to automated transport of freight and, with the exception of requirements in relation to driver hours etc., the regulations that currently apply to road freight transport operators should be fit for purpose where the vehicles utilised are automated. As noted in the ABI/Thatcham response, provisions enabling operators to carry goods internationally will also require careful consideration and collaboration to ensure that UK licences are accepted abroad – and vice versa – without diluting safety standards.*

## CHAPTER 5: PRIVATELY-OWNED PASSENGER-ONLY VEHICLES

### 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?

17. **Response:** *There will clearly be circumstances where an individual can be regarded as the beneficial owner of a fully automated vehicle. As discussed in the **Categories of Vehicle and Service** section of this document, it may not be as simple as setting a boundary at a lease period of six months and six months may not actually be the best time period for the boundary. In the table in the **Categories of Vehicle and Service** section, I've referred to 'n' days where 'n' may be potentially be as little as 30 days but could be as high as 180 days or 6 months. There are also potentially multiple levels of ownership/leasing possible and the important issues will be determining the obligations of the various parties in each of those scenarios.*

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

## **Allocating responsibility 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?

**18. Response:** *Yes, but some clarification required against each of the above:*

- (1) *Yes, the vehicle keeper should be responsible for insuring it*
- (2) *Yes, the vehicle keeper should be responsible for its roadworthiness and this may require that some sort of service and maintenance contract is in place with an appropriate and competent organisation*
- (3) *Although the keeper may hold this responsibility under the AEV Act, in practical terms the responsibility should rest with the ADSE or could be devolved to the organisation with which a service and maintenance contract exists*
- (4) *Yes, but the vehicle should also be capable of notifying accidents via the DSSAD mechanism that is currently being defined and agreed at UNECE and to which the ABI/Thatcham have provided significant input*
- (5) *Yes, this is the most sensible approach at this stage*

## **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?

**19. Response:** *Yes, this is the most sensible approach and ensures we don't have multiple versions of 'keeper'.*

## **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?

**20. Response:** *This is likely to be the most sensible approach but this should be part of a wider set of defined roles and responsibilities relating to the different types of keeper and operator described in the **Categories of Vehicle and Services** section of this document. There is a good parallel here in aviation where the crash of Manx2 Flight 7100 on 11<sup>th</sup> February 2011 in Cork revealed the virtual nature of Manx2 as an airline, including its lack of safety culture. It is essential that a similar*

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

*situation should not arise with automated vehicles and that the roles and responsibilities of all parties involved are legally agreed, documented and explained.*

## **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?

21. **Response:** *As detailed in the response to 18 (2) above, and in the **Categories of Vehicle and Service** section, it may be required that some sort of service contract, that could include supervision and maintenance, is in place with an appropriate and competent person or organisation. It would therefore be appropriate that a suitable regulation-making power be included.*

## **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.

22. **Response:** *The ABI/Thatcham response to this consultation sets out the potential issues relating to ownership and leasing arrangements at different levels. This is also discussed in the **Categories of Vehicle and Service** section of this document. The key here is to ensure that at least one of the parties is always picking up the key responsibilities around:*

- (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*

## **Protecting consumers from 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.

23. **Response:** *There should be transparency about cost of ownership of automated vehicles. In practice it is likely that this will be wrapped up in a single (probably) monthly cost for lease or contract hire however, it will also be important that, where a vehicle is purchased outright, any ongoing cost of provision of a service contract for maintenance and supervision is prominently brought to the customer's attention. The safety assurance agency proposed in Consultation Paper 1 is likely to be best placed to enforce this.*

## **CHAPTER 6: ACCESSIBILITY**

### **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.

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

24. **Response:** *The provision of mobility services to segments of the population that, through disability or age, may currently have little or no access is one of the key potential benefits of automated vehicles. For this reason it is vital that the requirements of those with accessibility issues are, as far as is reasonably practical, taken into account in the design and delivery of HARPS and the vehicles used to provide them.*

## **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?

25. **Response:** *Yes, this would be a sensible approach.*

## **Specific accessibility outcomes 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?

26. **Response:** *These are three key areas where accessibility provision may be tested with HARPS. It may be one matter to provide a HARPS vehicle that's properly adapted to take wheelchairs and for the needs of the blind but entirely another where specialist (human) help is required in boarding and alighting and in getting the user to and from the vehicle. There is potentially a line to be drawn between adaptation of vehicle and/or service and the provision of care from an external agency or a friend or relative of the user. This is something that's already being dealt with but it may be possible to shift where the line is drawn in future with HARPS. In any event, provision for a carer will be a key part of the requirements.*

## **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.

27. **Response:** *This is very much about where the line referred to in the previous response is drawn. There will need to be minimum accessibility standards for HARPS and the suggested process of co-creation in the design of the HARPS vehicles and services may be that best way of establishing what those minimum standards should be.*

## **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.

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

28. **Response:** *It will be useful to understand the extent to which HARPS are being used by different groups of people but, to avoid privacy concerns, this will need to be undertaken by collection of anonymised data. This is something that will need care in implementation, particularly when user numbers are low, to avoid inadvertent identification of a particular user through the journeys they undertake.*

## CHAPTER 7: REGULATORY TOOLS TO CONTROL CONGESTION AND CRUISING

### 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.

29. **Response:** *Procedures for TROs clearly need to be brought into the 21<sup>st</sup> century and they certainly need to be digitised, however the underlying mechanism already allows the types of controls likely to be needed for HARPS.*

### 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?

30. **Response:** *If we are ultimately to move to a Mobility as a Service model with HARPS, along with active travel and mass transit options included as constituent parts, then transport authorities will need to be able to price use of both roads and kerbside for HARPS and other vehicles. This pricing would need to be dynamic and be designed to generate the best outcomes in terms of both efficient movement of people and freight and from an environmental perspective.*

### 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.

31. **Response:** *As described in the previous response, both road and kerbside pricing (the latter including parking charges) would need to be dynamic and able to be set, at any given time, to generate the best outcomes in terms of both efficient movement of people and freight and from an environmental perspective.*

### 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.



# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

32. **Response:** *The key here is that funds raised in such schemes need to be ring-fenced within the overall budget of the transportation authority, i.e. road pricing charges obtained from HARPS operators should be able to be used to cross-subsidise mass transit and/or active travel options. The biggest barrier is likely to be the need to incorporate at least kerbside parking under the transportation authority's auspices – this would represent a massive change in London, where parking is currently controlled by individual boroughs, rather than TfL. Also, from a road-pricing point of view, currently only 'red routes' are maintained by TfL, with all other roads falling under individual borough control.*

## 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?

33. **Response:** *There may be some merit in limiting numbers within a pilot commercial operation however the key is to ensure the HARPS vehicles have undergone sufficiently rigorous testing in simulation, within designated test facilities and in real-world trials to enable them to be properly approved as safe to operate. Any restriction in numbers is likely to only be required for a matter of months unless problems are observed.*

## 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?

34. **Response:** *Yes, it would be better to use sophisticated dynamic road and kerb pricing to influence levels of usage and thus effectively the total number of HARPS vehicles on the road at any given time.*

## CHAPTER 8: INTEGRATING HARPS WITH PUBLIC TRANSPORT

### 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?

35. **Response:** *There are potentially a number of different categories of HARPS and privately-owned automated vehicles. In a number of ways HARPS regulation is proposed to be based on bus regulation and therefore it may make more sense to have sub-categories within it and one of those may relate to vehicles that would qualify for bus regulation under the current regime. This is explored in more detail under the **Categories of Vehicles and Service** section of this document.*

# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

## **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.

36. **Response:** *If HARPS regulation is set up with multiple sub-categories, including one for vehicles capable of transporting more than eight passengers and where separate fares are charged then the regulation can still be HARPS specific and but utilise those parts of existing bus regulation that are most appropriate.*

## **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?

37. **Response:** *There is probably not the need for this further sub-category but this may warrant further consideration when considering the finer detail of the regulations.*

## **Encouraging use of 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.

38. **Response:** *For Mobility as a Service to work effectively and provide all of the potential benefits, then both collaboration and exchange of data will be critical. There is likely to be the need for a single platform underpinning MaaS in any given transport authority jurisdiction. This will need to be fed data on services available, including HARPS, mass transit and active travel options, along with pricing information from service providers and road/kerbside pricing from the authority itself. In this way the user could obtain multiple options for any given journey and choose from these, for example, the cheapest, the quickest or the most environmentally beneficial. The platform would effectively satisfy all the marketing, ticketing and information provision requirements and has been referred to as a 'journey aggregator' or 'trip aggregator'. An overview is shown in the diagram below (NB: AMoD – Automated Mobility on Demand – is equivalent to HARPS):*



# TIM MARLOW

Expert and Consultant in Connected and Autonomous Mobility and its Impact on the Insurance Industry

