Motorcycle Industry Association (MCIA) submission

Developing the automated vehicles regulatory framework – 25th June 2026

About MCIA

MCIA is the trade association for 'L-Category' vehicles, which include powered two, three, and light four-wheeled vehicles (i.e., mopeds, motorcycles, tricycles, and quadricycles). Members include manufacturers of whole vehicles, accessory and components and those providing associated services to the industry.

With a mission to promote and protect the industry, MCIA works tirelessly to advance the growth, safety, and sustainability of L-Category vehicles. MCIA plays a vital role in shaping policies and regulations that impact the industry, working closely with Government bodies and other relevant stakeholders to ensure the potential of our vehicles is fully harnessed.

MCIA also actively promotes motorcycle safety, aiming to enhance awareness and education among users and the public. Through campaigns, initiatives, and partnerships, MCIA strives to reduce accidents, improve rider skills, and advocate for the implementation of effective safety measures.

Executive Summary

1. MCIA welcomes the opportunity to contribute to the London Assembly Transport Committee's inquiry into Autonomous Passenger Vehicles (APVs).

2. The deployment of autonomous passenger services has the potential to deliver benefits in relation to safety, mobility and accessibility. However, these benefits can only be fully realised if APVs are introduced in a manner that supports London's wider transport objectives and protects all road users.

3. Much of the current debate surrounding autonomous vehicles focuses on passengers and vehicle occupants. MCIA believes equal consideration must be given to the interaction between APVs and vulnerable road users, particularly motorcycle and moped users.

4. Motorcycles and mopeds account for approximately 1% of road traffic volume,[1] however, they account for a quarter of all road fatalities.[2] They combine speed and manoeuvrability with limited physical protection, making them particularly vulnerable in the event of a collision. The ability of autonomous systems to safely detect, interpret and respond to motorcycles and mopeds must therefore be considered a fundamental requirement of deployment.

[1] https://roadtraffic.dft.gov.uk/

[2] https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-provisional-results-2025/reported-road-casualties-in-great-britain-provisional-estimates-2025

5. MCIA supports a cautious, evidence-led approach to APV deployment. Operators should be required to demonstrate not merely that autonomous systems are safe for passengers, but that they can safely operate alongside all road users in complex urban environments such as London.

6. The Committee should also consider APVs within the wider context of the Mayor's Transport Strategy. Deployment should not be assessed solely on technological capability, but on whether it contributes to wider public policy objectives including:
   - Vision Zero
   - Traffic reduction
   - Increased use of sustainable transport
   - Improved accessibility
   - Reduced congestion
   - Greater transport integration.

7. MCIA believes that autonomous passenger services should complement existing transport modes, rather than undermine them. Any deployment framework should therefore ensure that APVs support public transport, walking, cycling, and other space-efficient transport modes, including motorcycles and mopeds.

8. London has the opportunity to become a global benchmark for the safe integration of autonomous vehicles within complex urban transport systems. This will require a regulatory approach that places vulnerable road user safety at its core.

Questions

How close are autonomous passenger vehicles to becoming a reality in London?

9. APVs are no longer a theoretical concept. Developments in the United States of America, China, and elsewhere demonstrate that commercial deployment is technically feasible in certain operating environments. However, London represents one of the most complex mixed-traffic urban environments in the world, presenting challenges that differ significantly from many locations where autonomous services currently operate.

10. London's road network is characterised by:
    - High traffic density
    - Complex junction layouts
    - Extensive interaction between different transport modes
    - Significant pedestrian activity
    - Large numbers of cyclists
    - Substantial motorcycle and moped usage.

11. The successful deployment of APVs in less complex environments should not automatically be interpreted as evidence that equivalent performance can be achieved in London. Before widespread deployment is considered, operators should demonstrate safe operation in real-world London conditions, including environments where motorcycles and mopeds are not only present, but are commonplace.

12. The key question is therefore not whether APVs are technically capable of operating in London, but whether they can do so safely, consistently and in a manner that supports the wider transport network.

How will autonomous passenger vehicles navigate London's complicated road network?

13. The greatest challenge is unlikely to be route navigation itself, rather, it is the ability of autonomous systems to correctly interpret and predict the behaviour of other road users in highly dynamic environments. This is particularly relevant to motorcycles and mopeds.

14. Unlike conventional passenger vehicles, motorcycles may:
    - Adopt dynamic road positioning
    - Filter through stationary or slow-moving traffic
    - Accelerate more rapidly than surrounding vehicles
    - Occupy different lateral positions within a lane
    - Appear from locations not always anticipated by conventional driver behaviour models.

15. These behaviours are lawful, commonplace and often contribute to rider safety. Autonomous systems must therefore demonstrate that they can reliably detect motorcycles and mopeds, classify them correctly, predict likely behaviour, and respond safely and proportionately.

16. The Committee should seek assurance that operators can demonstrate safe interaction with motorcycles and mopeds through extensive real-world testing in dense urban environments rather than relying on simulation or closed-track testing, which cannot adequately replicate filtering behaviour, obstructions, or dynamic rider positioning.

What impact would the introduction of autonomous passenger vehicles have in London?

Safety and Vision Zero

17. MCIA supports technologies capable of reducing human error and improving road safety. Many collisions involving motorcycles occur because of another road user

fails to see the rider, misjudges their speed, turns across their path, or changes lane without adequate observation.

18. If autonomous systems can consistently outperform human drivers in these scenarios, there is potential for meaningful safety improvements. However, this cannot be assumed. Research by the RDW (the Netherlands Vehicle Authority) has already shown that advanced systems such as adaptive cruise control often fail to respond to motorcycles,[3] therefore, it is critical that these complexities are understood and addressed prior to APVs being deployed in London.

19. If these challenges are not addressed, there is a risk that APVs could systematically fail to detect motorcycles and mopeds in certain scenarios, introducing new collision risks and undermining public confidence in automated transport systems.

20. Operators should be required to provide evidence demonstrating performance specifically in relation to vulnerable road users, including motorcycles and mopeds. Near-miss data should be collected and published alongside collision data, allowing regulators and stakeholders to identify emerging risks before serious incidents occur.

Traffic Reduction and Congestion

21. The Committee should carefully consider whether APVs contribute to, or undermine, the Mayor of London's traffic reduction objectives. The impact will depend heavily on how services are deployed.

22. If APVs primarily replace private car journeys, congestion may reduce. If APVs generate significant numbers of empty-vehicle journeys, or replace journeys currently made by public transport, walking or cycling, congestion could increase.

Motorcycles and Mopeds within the Transport Network

23. The Committee should recognise that motorcycles and mopeds already contribute positively to London's transport system. They occupy less road space than cars, reduce congestion, offer affordable mobility, provide efficient urban journeys, and support many commercial and logistics activities.

24. The success of APVs should not be measured solely by their ability to move people, but by their ability to operate safely alongside existing transport modes.

Children, Older and Disabled People

[3] https://www.femamotorcycling.eu/acc-does-not-always-see-motorcyclists/

25. MCIA recognises the potential for APVs to improve mobility for individuals who may currently face barriers to independent travel. However, accessibility must extend beyond vehicle occupants.

26. An inclusive transport system is one that is safe for all users. This includes ensuring that APVs can safely interact with motorcycle users – where the average age is mid-to-late fifties,[4] disabled road users, pedestrians, cyclists, and other vulnerable road users. Accessibility outcomes should therefore include consideration of how APVs affect the wider public realm and not solely those travelling within the vehicle.

Cybersecurity

27. Cybersecurity is fundamental to public confidence in autonomous transport systems. Any compromise of vehicle perception systems, communication systems or operational controls could have significant consequences for passengers and other road users.

28. The Committee should seek assurances that operators maintain robust cybersecurity arrangements and that appropriate reporting and intervention mechanisms exist where vulnerabilities are identified.

What actions should the Mayor and TfL prioritise when engaging with operators intending to pilot autonomous passenger vehicles and what powers should they be seeking to regulate the sector?

29. MCIA recommends four priorities:

Vulnerable Road User Safety

30. TfL should require operators to demonstrate safe interaction with vulnerable road users, including motorcycle and moped users, before any large-scale deployment is authorised.

31. Testing should explicitly include:
    - Filtering motorcycles and mopeds
    - Motorcycles and mopeds in bus lanes
    - Lane-splitting scenarios
    - Complex junction interactions
    - Poor weather conditions
    - Night-time operation.

Transparency

[4] https://www.britishmotorcyclists.co.uk/millennials/

32. Operators should be required to publish:
    - Collision data
    - Near-miss data
    - Safety performance information
    - System limitations
    - Operational design domain information.

33. Data should be sufficiently detailed to enable assessment of performance in relation to vulnerable road users.

Independent Oversight

34. TfL should seek powers to condition, restrict, or withdraw operational approval based on safety performance, including vulnerable road user-specific metrics. This should include the ability to:
    - Require safety reviews
    - Impose operational restrictions
    - Suspend deployment where risks emerge
    - Mandate corrective actions.

Stakeholder Engagement

35. Motorcycle organisations, rider groups, accessibility organisations, and road safety bodies should be engaged throughout the deployment process.

36. The design of autonomous transport systems should not occur in isolation from those most affected by them.

What can the Mayor and TfL learn from trials and deployments of autonomous passenger vehicles in other countries?

37. International experience demonstrates that APVs can operate successfully in some environments. However, it also demonstrates the importance of maintaining strong regulatory oversight and continuous monitoring.

38. London should avoid assuming that success elsewhere guarantees success in the capital. Instead, international deployments should be used to identify best practice, emerging risks, effective reporting frameworks, successful public engagement approaches, and lessons regarding interactions with vulnerable road users.

39. Particular attention should be given to evidence concerning motorcycle and moped interactions, which remain comparatively under-examined within much of the autonomous vehicle debate despite their significance for road safety.

Conclusion

40. MCIA supports innovation in autonomous transport where it delivers clear and demonstrable public benefit. However, APV deployment in London must be contingent on proven safety performance in real-world conditions, particularly in relation to vulnerable road users.

41. For motorcycles and mopeds, the key test is straightforward: APVs must demonstrate that they safely detect, understand and respond to some of the most vulnerable road users on London's roads.

42. If this can be achieved, autonomous technologies may contribute positively to Vision Zero and wider transport objectives. If it cannot, deployment should not proceed until those shortcomings have been addressed.

43. MCIA therefore recommends that the Committee places vulnerable road user safety, modal integration, and transparency at the centre of its recommendations, and ensures that no large-scale deployment proceeds without clear evidence that these requirements have been met.