Developing the automated vehicles framework

Summary

- Frameworks must be updated to explicitly reflect the capabilities, limits and lifecycle management of automated driving systems, ensuring safe and commercially viable deployment of early logistics focused use cases such as hub to hub HGV movements, automated depot operations and last mile services.
- Clear, robust requirements for cyber security, software governance, data recording and safe fallback behaviour are essential.
- A predictable, aligned regime, supported by existing type approval evidence, consistent interfaces, independent investigation and proportionate sanctions will give operators confidence, reduce risk and enable the logistics sector to adopt Automated Vehicle (AV) technology safely, efficiently and at scale.

About Logistics UK

Logistics UK is one of the country's largest business groups, and the only trade association which represents all of logistics. Our mission is to support, shape and stand up for a safe, sustainable and efficient logistics sector. Our membership of more than 22,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the customers of freight services, such as retailers and manufacturers. We deliver services, representation and thought leadership, helping members and policymakers to seize new opportunities for the sector and the economy as a whole, right across the country.

The logistics sector

Nothing moves without logistics. The sector employs 8% of the UK workforce in good jobs with strong career progression, contributes £170 billion in GVA each year, and underpins the resilience of the everyday economy.

Logistics plans and coordinates the movement and storage of the goods that businesses, public services and households rely on – using ports, airports, roads, railways, waterways, warehouses and smart digital systems to tie it all together.

With the right policies, logistics can drive up UK growth by £8 billion a year.[1] However, rising costs, red tape and poor infrastructure are holding the sector back – putting firms out of business, fuelling inflation, and undermining productivity and supply chain resilience. As a result, the UK has fallen from 4th to 19th in the World Bank Logistics Performance Index over the decade to 2023.

All responses in this document are in relation to commercial automated vehicles and freight.

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[1] Logistics Delivering a solution to the UK's productivity puzzle, Oxford Economics, 2023

Consultation response

Question 1: Do you think that amendments are required to any of the vehicle type approval schemes to enable deployment of AVs?

Great Britain type approval should explicitly cover automated vehicle (AV) driving systems. This includes classification of what they can do (their Operating Design Domain), how they are kept secure, how software is safely updated across the vehicle's life, and how data is recorded for safety and claims. This avoids gaps between type approval and the later "authorisation" step.

Question 2: What amendments do you consider are needed for the categories identified in the previous question, and why?

For vans and HGVs (M1 and N1)

Clear statements of automated capability, compliance with current cyber and software update rules, interoperable event/data recorders, and evidence that the system handles faults and degradations safely are required.

For L-category and tractors (T)

Requirements for low speed or geofenced operation and safe switching between private and public roads. These changes align approval with AV functions.

Question 3: In your view, what do you think will be the designs of self-driving vehicles deployed in the next 5 years?

Logistics UK members expect that the self-driving freight vehicles most likely to emerge in the next five years will be electric vans, rigid trucks and equipped with combined lidar, radar, camera systems and high precision positioning. Early freight applications are anticipated to include hub to hub HGV operations, along with automated yard tractors and service vehicles in controlled environments. These designs are considered more realistic in the near term than widescale automated vehicle use, due to the ageing condition of parts of the UK's strategic road network, the need for significant infrastructure upgrades before broader deployment can be achieved, and because longer distance HGV operations will more likely a human on board to manage complex urban environments, and/or loading and unloading at destination which would undermine the autonomous vehicle business case for such uses.

Question 4: In your view, do you expect any designs to be specific to the UK, and why?

Vehicles would need to comply with existing UK rules on weight and dimensions, while also adapting to the UK's narrower roads, varied road layouts and dense urban environments. The UK's frequent wet and muddy weather will require more robust sensor cleaning systems to maintain performance. In addition, interfaces and perception systems must reliably interpret UK specific road signs, markings and signalling. These factors mean that certain hardware, software and design adaptations will be necessary for safe and effective UK deployment.

Question 5: In your view, what do you think will be the use-cases of self-driving vehicles deployed in the next 5 years in the UK?

In the next five years, subject to required infrastructure investment, Logistics UK members expect early UK deployments of self-driving commercial vehicles to focus on practical, controlled use cases such as hub to hub HGV movements along defined freight corridors, automated yard and depot operations including port environments, and low risk applications like automated parking on private sites. These scenarios offer predictable conditions that allow operators to realise safety and efficiency benefits ahead of wider network scale adoption.

Question 7: In your view, what types of evidence should form the basis of an authorisation application?

A clear safety case showing how the vehicle will be used and kept safe; a precise description of the operating domain; results from simulation, test track and road tests; cyber and software update compliance; data recording capability; clear human/machine interface; safe fallback behaviour; accessibility; and how incidents will be reported and learned from.

Question 8: In your view, what evidence gathered at the vehicle type approval stage, if any, should be used to support an authorisation decision?

Any engineering and safety validation already completed for type approval should support authorisation including braking, control systems, cyber security compliance and sensor performance evidence.

Question 9: In your view, do you think geofencing or environmental mapping have a role in operational design domain (ODD) approval, and why?

Where an ADS relies on defined environments, accurate mapping or geofenced ODD limits strengthen safety assurance and ensure the vehicle does not exceed its intended operational set up.

Question 10: In your view, are there any specific authorisation requirements relating to the vehicle that should, or should not, be included, and why?

Authorisation requirements should include enforceable operating limits that keep the vehicle within its approved ODD, demonstrable safe fallback behaviour, and full compliance with UK road rules to ensure predictable, lawful operation. Strong cyber security, secure data management and clear, accessible software update processes are also essential to maintain safety and integrity throughout the vehicle's life. These measures provide the assurance operators need while ensuring that authorised vehicles remain safe, secure and fit for use on UK roads.

Industry would benefit from upskilling of technical knowledge to deal with automated vehicles, with some suggestion that a register of approved maintenance technicians would improve safety confidence within the industry

Question 11: In your view, what should be considered when assessing whether an ASDE (Authorised Self-Driving Entity) is of good repute?

Consider criminal or regulatory history, misleading behaviour, disciplinary actions, credible references and the organisations compliance record, with clear engineering governance and accountability for technical and safety-critical decisions.

Approach should mirror existing O-licence approaches to repute.

Question 12: In your view, what should be considered when assessing whether an ASDE is of good financial standing?

Approach should mirror existing O-licence approaches to repute.

Sound solvency and audited accounts; capacity to fund updates, respond to investigations and meet any penalties or redress.

Question 15: In your view, what, if any, additional information should be captured on the register of authorisations?

A description of the operation, whether a user is in charge, the geography, current status, the ASDE identity, software versioning and history, and links to safety advisories.

Question 16: How might you expect to use the information available within the register of authorisations?

To support fleet risk assessments, inform users, validate insurance and compliance, coordinate with local authorities and emergency services, and build public trust.

Question 17: In your view, what should be considered when developing the authorisation procedure?

It should be proportionate, predictable and aligned with current regulatory standards. Evidence requirements must be clear to all parties.

Question 18: In your view, are there lessons from other regulated areas that should inform the authorisation regime, and why?

Aviation, existing road and rail safety frameworks show the value of structured safety cases, clear accountability and robust post deployment monitoring.

Question 19: In your view, what processes should be in place to ensure that authorised vehicles continue to meet the legal safety standard over time?

Regular in use monitoring, software update oversight, incident reporting and a requirement to notify material changes in behaviour or performance.

Question 20: In your view, how should changes to software or functionality be managed from an authorisation perspective, and when should reauthorisation be required?

Minor updates should go through a controlled engineering risk assessment. Major changes affecting safety or ODD should require reauthorisation.

Question 21: What, if any, costs do you think should be taken into consideration when assessing the impact of authorisation standards?

Costs incurred in testing, data storage, compliance, cyber security, validation and engineering resource.

Question 22: What, if any, benefits do you think should be taken into consideration when assessing the impact of authorisation standards?

The benefits of robust authorisation standards include improved road safety, reduced collision and claims costs, greater public and operator confidence in automated technologies, and clearer allocation of liability, which supports more efficient insurance processes. Strong standards also provide market certainty for industry investment and create opportunities for UK based development, deployment and export of AV technologies, delivering long term economic and operational gains for the logistics sector.

Question 23: In your view, should any existing prohibitions on non-driving related activity by a UIC be disapplied?

Existing restrictions should remain in place, except for what is already permitted under the AV Act.

When the automated driving system is engaged, current law allows a UIC to use the vehicle's built in infotainment screen because it will automatically disable itself if a transition demand is issued. We do not believe any further relaxation is appropriate. The UIC must remain awake, in their seat, fit to drive and ready to take control within the required transition period. Allowing additional non driving activities would risk delaying takeover or reducing situational awareness.

Question 24: What evidence, if any, can you supply on the ability of a driver to safely resume control after disengagement from driving tasks? No personal information should be provided as part of the evidence.

Data on reaction times and workload from trials supports a transition period of around ten seconds, with clear, graded alerts.

Question 25: In your view, should there be specific training for a UIC?

Yes, covering system behaviour, limitations, transition demand response and legal responsibilities.

Question 26: What, if any, knowledge and skills outcomes should the training provide?

UICs should reliably recognise takeover procedures, resume control safely, and report issues. Assess understanding of limits and responsibilities.

Question 27: In your view, how frequently should UICs undertake training or tests of their ability?

Provide induction and annual refreshers, with extra training after major software updates or any relevant incident.

Question 28: How should a UIC be informed of any changes to the vehicle's authorisation?

With in vehicle messages that persist until acknowledged, pre drive briefings and app or telematics notifications from the vehicle provider.

Question 29: In your view what, if any, costs do you think should be taken into consideration when assessing the impact of UIC regulation?

Costs: training time and materials, interface improvements and compliance.

Question 30: In your view what, if any, benefits do you think should be taken into consideration when assessing the impact of UIC regulation?

Benefits: improved safety, fewer incidents, clearer accountability and reduced human error risk.

Question 31: In your view, should there be a stated value expected for a transition period duration akin to UNECE Regulation No. 157?

A stated transition period value is useful. Around 10 seconds is appropriate, with flexibility for different situations. Alerts should escalate if the User in Charge does not respond.

This aligns with UNECE Regulation 157, which sets a minimum 10 second transition demand time for takeover.

Question 33: In your view, should different scenarios require different transition demand protocols, and why?

Yes, complexity, speed and environment affect the time required for safe takeover.

Question 34: In your view, should the nature of a transition demand vary depending on the user-in-charge and why?

Yes, to set baseline expectations so drivers see consistent meanings for core alerts and controls across vehicles.

Question 35: In your view, should standards be established for transition demand interfaces across different vehicle makes and models, and why?

There should be common standards so alerts work the same way across different vehicles. This makes them easier to understand and safer to respond to. The details can be improved over time as real world evidence builds.

Question 36: In your view, what should be considered when assessing whether a NUICO (No-User-In-Charge) licence applicant is of good repute?

Regarding commercial vehicles, the same regulations for a licence application should be required as currently require for o-licence to maintain compliancy and regulatory fairness between automated fleets and manned fleets.

Question 37: In your view, what should be considered when assessing whether a NUICO licence applicant is of good financial standing?

Regarding commercial vehicles, the same regulations for a licence application should be required as currently require for o-licence to maintain compliancy and regulatory fairness between automated fleets and manned fleets.

Question 38: In your view, what capabilities should NUICOs generally possess to be able to adequately detect problems arising during NUIC journeys?

Real time telemetry, fault detection, passenger or load monitoring and reliable communications links.

Question 39: In your view, what capabilities, if any, other than remotely assisting the ADS and driving the vehicle, should NUICOs generally possess to be able to adequately respond to problems arising during NUIC journeys?

Ability to dispatch field support, liaise with authorities, recover vehicles, secure data and report incidents promptly.

Question 43: If you may seek to operate NUIC goods vehicles in the future, what kind of service and types of vehicles would you be most likely to operate?

Logistics UK members believe early use cases are most likely to be trunking operations between logistics hubs, ports and distribution centres using heavy goods vehicles on motorways and major A roads. These environments offer predictable conditions and controllable operational situations. Smaller automated vans or delivery robots may also be used for low risk, short distance movements.

Question 44: If you may seek to operate NUIC goods vehicles over 3.5 tonnes in the future, is it likely you will operate both NUIC goods vehicles and manually driven HGVs?

Mixed fleets will remain essential for the foreseeable future. Manually driven HGVs will continue to be required for urban deliveries, multi drop routes and any journey outside the authorised operating routine of the automated system, until infrastructure requirements are met.

Question 46: If you may seek to operate NUIC vehicles in the future, what remote ADS assistance tasks, if any, are you likely to incorporate into early deployments?

Early deployments would focus on low risk, advisory tasks. These include helping the ADS interpret unusual static obstacles, confirming safe paths when the system is uncertain, and supporting recovery procedures if the vehicle stops in a safe state. These tasks would remain advisory only, with the ADS retaining full control.

Question 47: In your view, how often and in which circumstances would it be appropriate for operators to use remote ADS assistance?

Remote assistance should be used occasionally and only when the ADS encounters a situation outside its usual experience but still within its authorised operating setup. Examples include temporary roadworks, unexpected lane closures or poorly marked signage.

Question 48: In your view, how often, and in which circumstances, would it not be appropriate for operators to use remote ADS assistance?

Remote assistance should not be used for safety critical manoeuvres or where latency, visibility or system uncertainty creates unacceptable risk.

Question 49: What, if any, training, health or skills assessments, qualifications, and vetting should remote ADS assistants undertake or meet to be deemed fit for their role?

Remote ADS assistants should hold a full driving licence for the relevant vehicle category and complete training in ADS behaviour, situational awareness, and safe decision making.

Question 54: In your view, under what circumstances, if any, and considering the possible presence of passengers or goods, should remote driving be permissible for the purpose of responding to problems during NUIC journeys?

Remote driving should only occur as a last resort where remote assistance to the ADS is insufficient and were continuing under automated control would present greater risk.

Question 55: Under what circumstances, if any, and considering the possible presence of passengers or goods, should remote driving be permissible for the purpose of routinely completing elements of NUIC journeys outside the ODD of the ADS, and why?

Routine remote driving should be limited to simple, predictable movements such as depot access roads, gatehouses or first/last50 metres connections where ADS capability does not yet apply.

Question 56: What, if any, training, skills, safeguarding and health assessments, qualifications and vetting should remote drivers undertake or meet to be deemed fit for their role?

Remote drivers should hold a full licence for the relevant vehicle class and undertake specialist training in remote operation procedures, communication systems, and situational awareness.

Question 57: What requirements, if any, should be mandated with respect to the working hours and conditions of remote drivers?

Working hours rules should follow established fatigue management standards used in other safety critical sectors.

Question 58: In your view, what considerations, if any, should be made with respect to assessing remote driving hardware and software within a remote operations centre?

Assessment should ensure that equipment is reliable, secure and resilient to latency or signal loss. Systems should provide adequate situational awareness through high quality video, sensor data and clear alerts. Cyber security protections in communications must be mandatory. Equipment should also be tested to ensure consistent performance in varying network conditions.

Question 83: In your view what, if any, considerations are there in how an AV should be appropriately disposed of compared to a conventional vehicle?

AV disposal must include secure destruction of data storage hardware and safe handling of sensors and batteries.

Question 85: In your view, what factors relating to an incident or traffic infraction would warrant the IURS to:

- **issue a regulatory sanction under the AV Act, as opposed to a civil sanction?**
- **vary an automated vehicle's authorisation conditions, rather than suspending the authorisation altogether?**
- **issue a monetary penalty notice instead of a compliance notice?**

Decisions on sanctions could mirror principles already familiar within the commercial vehicle and Traffic Commissioner regimes.

Question 125: In your view, how should AVs and their components be handled at end of life to reduce environmental harm?

End of life handling should ensure secure data erasure, battery recovery and recycling of sensors and electronic modules.