

**From Hadi Hormozi**

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**What are the benefits and drawbacks of different corporate presence requirements?**

Establishing corporate presence requirements for automated vehicle entities significantly benefits accountability, consumer protection, and regulatory oversight. However, these benefits come with potential drawbacks, such as increased operational costs, establishment complexity, and regulatory fragmentation. Balancing these factors is crucial to creating a conducive environment for developing and deploying automated vehicles. Regulatory frameworks should aim to ensure safety and compliance while minimising unnecessary burdens on companies to foster innovation and market participation.

**How would a requirement for the corporation to be an Australian registered company impact business models of potential ADSEs?**

Requiring ADSEs to be Australian-registered companies would significantly impact their business models, leading to increased operational costs and regulatory compliance requirements. However, it also offers opportunities for enhanced consumer trust, market positioning, and access to local resources and incentives. Companies must strategically adapt their business models to balance these challenges and opportunities, ensuring they can successfully operate and compete in the Australian market.

**How suitable are the matters we propose to include in an ADSE's safety management system? Should other matters be considered?**

The proposed matters for inclusion in an ADSE's safety management system are primarily suitable and comprehensive. However, incorporating additional considerations such as data privacy, ethical decision-making, environmental impact, public engagement, and continuous improvement can further enhance automated driving systems' safety, acceptance, and effectiveness.

**Are there are other matters that the law enforcement and emergency services interaction protocol should account for?**

The interaction protocol between ADS, law enforcement, and emergency services should include standardised communication, secure emergency override mechanisms, automated incident reporting, and secure investigative data access. It should ensure first responder safety, enable traffic management, provide multilingual support, and develop training programs for responders. Additionally, the protocol should implement remote assistance, clear vehicle markings, public awareness campaigns, system interoperability, and redundancy mechanisms to maintain communication and control during emergencies.

**Do the certification procedures for aftermarket installations of an ADS adequately manage safety risks or should other matters be considered?**

Current certification procedures for aftermarket installations of an ADS manage many safety risks by ensuring compliance with safety standards and rigorous testing. However, additional measures should be considered to enhance safety further. These include ensuring compatibility with existing vehicle systems, requiring installations by certified professionals, implementing real-time monitoring and diagnostic tools, providing comprehensive user training, defining clear legal and liability frameworks, mandating post-installation inspections and periodic reviews, and incorporating robust cybersecurity measures with regular updates. Integrating these elements will create a more comprehensive safety framework, ensuring aftermarket ADS installations' reliable and safe operation.

**Are there other modifications that should be considered significant? Is there other information an ADSE should provide when seeking authorisation for a significant modification?**

When seeking authorisation for significant modifications to an ADS, it is crucial to consider software upgrades, hardware changes, integration with new systems, expansion of the operational design domain, and modifications to safety and redundancy systems. The ADSE should provide detailed descriptions of the modifications, including technical specifications and justifications, and safety impact assessments, including risk analyses and testing results. Additionally, evidence of compliance with relevant standards, third-party certifications, performance metrics, and plans for continuous monitoring should be included. Cybersecurity measures, updated management processes, updated user manuals and training programs, and compatibility assessments with existing systems and infrastructure are also essential to ensure a comprehensive evaluation and authorisation process.

**What are your views on the proposed additional AVSL measures to manage the safety risks of repairs, maintenance and modifications?**

The proposed measures under the AVSL for managing the safety risks of repairs, maintenance, and modifications are essential. The risks arising from repairs to an ADS differ significantly from those of conventional vehicles due to the complex software, sensors, and electronics involved, necessitating additional regulatory measures. Incorrect repairs can compromise the system's safety, posing greater risks than those associated with conventional vehicles. Express authorisation of repairers, maintainers, and modifiers is a suitable approach to manage these risks, ensuring that only trained and certified professionals handle ADS repairs and preventing unqualified individuals from making potentially dangerous modifications. An appropriate balance between control and responsibility involves shared accountability: the ADSE should have the discretion to authorise based on qualifications and safety standards while providing necessary training and information, and repairers and maintainers should adhere to these guidelines and uphold high safety standards. The AVSL should require that an ADSE not unreasonably withhold authorisation and share necessary information, withholding authorisation only for reasons such as insufficient qualifications or a history of unsafe practices, thus ensuring safety without hindering competition or innovation. The AVSL should also include safety duties for repairers, maintainers, and modifiers, such as adherence to standards, documentation, continuous training, and regular safety audits, promoting a culture of safety and accountability. These measures may impact business models: ADSEs may face increased responsibility and operational costs but can create new revenue streams through training and certification services. In contrast, service providers may need specialised training and equipment to enhance credibility and marketability. Overall, the proposed AVSL measures are appropriate and necessary, addressing the unique challenges of ADS technology, ensuring qualified professionals handle these systems, balancing control and responsibility, ensuring reasonable authorisation practices, including safety duties, considering business model impacts, supporting the safe and effective deployment of ADS technologies.

**Are there measures we should consider to manage the consumer impacts of an ADS being disabled due to suspension, cancellation or surrender of certification?**

To manage the consumer impacts of an ADS being disabled due to suspension, cancellation, or surrender of certification, several measures should be implemented. These include providing timely and clear communication through multiple channels to inform consumers of the situation and offering dedicated support hotlines and in-person assistance. Financial compensation, such as prorated refunds and reimbursement for inconvenience, should be provided alongside temporary alternative transportation solutions through partnerships with other service providers. Data security and privacy are paramount, with consumers given access to their data. The process for reinstating ADS certification and expected resolution timelines should be transparently communicated, along with offering software updates if applicable. Legal and regulatory compliance must be maintained, and consumer advocacy groups should be involved to protect consumer rights. Additionally, extended warranties and service plans can offer reassurance, and regular updates on resolution progress can help rebuild trust. These comprehensive measures will help mitigate consumer impact and maintain confidence in the technology and provider.

**For how long should ADSEs be required to retain data? Should there be different periods for different types of information?**

ADSEs should retain data for varying periods based on the type of information and its purpose. Operational data, including logs of vehicle performance and system diagnostics, should be kept for 3-5 years to allow for performance analysis and addressing systemic issues. Incident and crash data, critical for legal investigations and safety improvements, should be retained for 10 years. Maintenance and repair records, essential for tracking service history and compliance with safety standards, should be kept for 5-7 years. User data, which includes personal information and usage patterns, should be retained for 1-3 years after the end of service to respect user privacy. Records of software and system updates should be maintained for 5 years to track changes and ensure compliance with safety standards. Regulatory and compliance data should be retained as required by law. These recommendations ensure data is available for analysis and legal purposes while balancing privacy and security considerations.

**Are there risks associated with information management that are not covered in these proposals?**

While the current proposals for data retention and management by ADSEs address many critical aspects, additional risks must be managed. These include cybersecurity threats, data accuracy and integrity, inadequate access control, insecure data storage, and risks associated with data sharing and third-party access. Ensuring legal and regulatory compliance, avoiding data retention beyond its useful life, and promoting data portability and interoperability are also vital. Moreover, obtaining user consent and maintaining transparency and robust disaster recovery and business continuity plans are essential. Implementing measures to mitigate these risks will ensure a comprehensive and strong information management strategy that safeguards data integrity, security, and compliance.

**What are your views on the proposed additional AVSL measures to manage the safety risks of remote operation of a vehicle with an ADS?**

The proposed additional measures under the AVSL to manage the safety risks of remote vehicle operation with an ADS are essential for ensuring safe deployment. Companies use remote operations to oversee ADS performance, intervene in complex scenarios, and provide support with business

models, including subscription services and partnerships. Key parties influencing safety include the ADSE, remote operation centres, software and hardware providers, and regulatory bodies. The proposed scope of remote operations under the AVSL, covering all forms of remote management that affect vehicle operation, is appropriate. The ADSE should be responsible for safety, although a collaborative model involving remote operation centres and technology providers could also be effective. Duties for ADSEs should include ensuring operator competency, maintaining secure systems, and regular audits, while remote operation centres should adhere to protocols and provide continuous training. Remote operators should have a safety duty, requiring adherence to operational protocols, situational awareness, quick decision-making, and regular training. Required skills for remote operators include understanding ADS technology, situational awareness, effective communication, and technical proficiency. Locating remote operation centres in Australia offers advantages like better regulatory oversight, faster response times, higher costs, and limited access to global talent. A balanced approach might involve a primary centre in Australia with additional support centres elsewhere. These measures ensure comprehensive safety management for remote operations in ADS deployment.

### **Should an ADSE be required to ensure certain technical information is provided to consumers to inform purchasing decisions?**

Yes, an ADSE should be required to provide specific technical information to consumers to inform their purchasing decisions. This transparency is crucial for informed decision-making, safety awareness, and trust-building. Critical information should include the operational design domain, detailing the specific conditions and environments where the ADS can safely operate; the level of automation, explaining the extent of human intervention required; key safety features like emergency braking and collision avoidance; known limitations and constraints; data privacy and security practices; maintenance and update procedures; user responsibilities; certification and compliance with safety standards; and available support and training resources. Providing this comprehensive information ensures consumers understand the capabilities and limitations of the ADS, leading to safer and more effective use of the technology.

### **Should the AVSL include offences in relation to misrepresenting vehicle capabilities?**

Yes, the AVSL should include offences related to misrepresenting vehicle capabilities to ensure safety, consumer protection, and accountability. Misrepresentation can lead to unsafe usage, accidents, and eroded trust. The law should cover false claims, omissions of known limitations, misleading marketing, and inaccurate documentation about the ADS's capabilities. Offences should entail clear penalties, such as fines and sanctions, and require corrective actions like public corrections and additional consumer training. Mechanisms for consumer redress, including refunds and compensation for damages, should also be included. This comprehensive approach ensures consumers are well-informed, and ADSEs maintain high standards of transparency and integrity, fostering trust in ADS technology.

### **Are there other measures needed to address consumer risks?**

Additional measures should be implemented across several key areas to comprehensively address consumer risks associated with ADS. Consumer education and training should include public awareness campaigns and practical hands-on sessions to familiarise users with ADS functionalities and safety protocols. Comprehensive user manuals should cover all operational aspects, including emergency procedures, and be available in digital, print, and accessible formats. Robust customer support, such as 24/7 services and dedicated help centres, can assist with queries and issues. Regular

software updates and maintenance alerts keep ADS systems secure and functional. Clear warranty and service policies, including detailed coverage and extended service plans, ensure consumers understand their protections. Strong data privacy protections safeguard consumer information, including transparent privacy policies and robust cybersecurity measures. Effective consumer feedback mechanisms should allow easy reporting of issues and prompt responses. Legal protections should outline consumer rights to refunds, repairs, or replacements and provide access to legal assistance for disputes. Independent testing and certification by third-party organisations, with certification labels, can assure consumers of the ADS's safety and compliance with regulations. These comprehensive measures will help ensure consumers are well-informed, supported, and protected, fostering trust and confidence in ADS technology.

**What are your views on the options identified for human user obligations in vehicles with higher levels of driving automation?**

The proposed options for human user obligations in vehicles with higher levels of driving automation need careful consideration to ensure safety, usability, and regulatory compliance. The industry is exploring various vehicle control and seating configurations, such as traditional driver seats with manual controls and lounge-like arrangements without conventional driving controls, which can help determine user obligations. In vehicles with manual controls, specific requirements about seating position, when the ADS is engaged, are necessary to ensure the driver can take over if required. Licensing requirements should reflect the need for manual control capabilities, with users holding a traditional driver's license and possibly additional certification for operating automated vehicles. Drug and alcohol restrictions should apply to users of automated vehicles to maintain safety, as impairment can affect the ability to take control in emergencies. There should always be a requirement to have a person capable of driving in the vehicle, especially during the transition period of ADS technology integration. However, this may be relaxed for fully automated vehicles operating in defined domains over time. Allowing the person in the driving position to undertake secondary activities can enhance user convenience, provided safety measures like alertness detection systems are in place. Non-dynamic driving task obligations, such as ensuring passenger safety, monitoring vehicle systems, and complying with traffic laws, should still reside with the human user to ensure comprehensive safety and responsibility. These measures collectively ensure a safe and practical transition to automated driving technologies.

**Do you support third-party interference offences being included in both the AVSL and state and territory law?**

Yes, I support the inclusion of third-party interference offences in both the AVSL and state and territory laws to ensure comprehensive protection and enforcement. This inclusion is crucial for maintaining the safety and integrity of ADS, as third-party interference can lead to accidents and endanger lives. Legal consistency across jurisdictions provides clear guidelines and effective enforcement, deterring tampering and holding offenders accountable. Protecting against physical tampering, software hacking, signal interference, and data breaches safeguards consumers and builds trust in ADS technologies. It also provides legal backing for manufacturers and ADSEs to pursue actions against interference, supporting the safe deployment of automated vehicles. Integrating these offences into AVSL and state laws ensures that local enforcement agencies have the authority to act, enhancing overall legal recourse and protection.

**Do you support the proposed automated vehicle regulatory framework as a whole, and are there any barriers to its implementation?**

Yes, I support the proposed automated vehicle regulatory framework, as it is essential for ensuring ADS's safe and effective deployment. The framework's comprehensive approach to safety standards, user obligations, third-party interference offences, and data management protocols provides ADS with a robust legal and operational environment. However, several barriers to implementation need to be addressed, including the rapid pace of technological advancements, achieving regulatory harmonisation across jurisdictions and internationally, upgrading physical and digital infrastructure, gaining public acceptance and trust, managing the cost of compliance for manufacturers, and establishing clear legal and liability frameworks. Addressing these challenges will require coordinated efforts from governments, industry stakeholders, and the public to integrate automated vehicles into society successfully.

**Are measures needed to prevent vehicles with an active ADS from being provided to the market before the automated vehicle regulatory framework is in place? Which option or options is most suitable?**

Yes, measures are needed to prevent vehicles with an active ADS from being provided to the market before the regulatory framework is established to ensure safety and compliance. The most suitable approach combines a temporary moratorium on market release with a conditional approval system. The moratorium provides a clear and enforceable pause, preventing premature sales, while the conditional approval system allows for controlled testing and data collection under strict oversight. This dual approach ensures that vehicles can be thoroughly evaluated and that valuable real-world data can be gathered to refine the regulatory framework. This ensures that when ADS-equipped cars enter the market, they comply with robust safety and operational standards, protecting consumers and fostering trust in automated driving technology.

**Is it necessary to restrict aftermarket installation of an ADS, activation of a disabled ADS, or use of an ADS to approved trials only, before the automated vehicle regulatory framework is in place?**

Yes, it is necessary to restrict the aftermarket installation of an ADS, activation of a disabled ADS, or use of an ADS to approved trials only before the regulatory framework is in place to ensure safety and compliance. Allowing unrestricted aftermarket installations or reactivations without a regulatory framework can lead to improper installations, compromising safety and creating significant variability in the quality and safety of ADS systems. Restricting these activities to approved trials maintains consistent safety standards and allows for controlled data collection, essential for informing and refining the regulatory framework. This approach also prevents unauthorised or premature use of ADS technology, mitigating unsafe conditions and preserving public trust. Furthermore, approved trials enable direct regulatory oversight, ensuring compliance with interim safety standards and protocols. By restricting ADS activities to approved trials, we can ensure that all ADS-related operations are conducted safely and systematically, building a solid foundation for fully deploying automated vehicle technologies once the regulatory framework is established.

**What are the barriers to more complex and large-scale trials in Australia? How could trial arrangements be improved? Should there be provision in the AVSL for interim certification to support trials?**

The barriers to more complex and large-scale AV trials in Australia include regulatory uncertainty, infrastructure limitations, coordination across jurisdictions, public acceptance, funding challenges, and data privacy concerns. The lack of clear and comprehensive regulatory guidelines hinders the planning and execution of complex trials, which can be mitigated by establishing consistent regulations and

guidelines specific to AV trials. Infrastructure limitations, such as insufficient smart roads and communication networks (V2X), restrict the scope and scale of trials, necessitating investment in upgrading road infrastructure and digital networks. Differences in regulations and policies across states and territories create complexity for conducting large-scale, multi-jurisdictional trials, highlighting the need for harmonised regulations and policies through federal oversight or intergovernmental agreements. Public scepticism and lack of trust in AV technologies can hinder trial participation and support. This can be addressed by conducting public awareness campaigns and engaging with communities to educate and build trust in AV technologies. High costs associated with large-scale trials deter many companies and research institutions, suggesting the need for financial incentives, grants, and public-private partnerships to support funding. Additionally, data privacy and cybersecurity concerns can limit stakeholder participation, which can be mitigated by implementing robust data privacy and security measures and ensuring transparent data handling practices.

Improving trial arrangements requires streamlined approval processes, dedicated trial zones, interim certification, collaboration and knowledge sharing, and robust safety and risk management plans. Simplifying and expediting the approval processes for AV trials can reduce bureaucratic delays and facilitate timely project initiation. Establishing designated trial zones with the necessary infrastructure and regulatory support can allow large-scale trials to be conducted efficiently. Introducing interim certification under the AVSL would allow for the temporary approval of AV systems specifically for trial purposes, providing a legal framework for conducting trials while ensuring safety standards are met. Fostering collaboration between industry, government, and academia can enhance the overall effectiveness of trials by sharing knowledge, resources, and best practices. Requiring comprehensive safety and risk management plans for all trials ensures identifying and mitigating potential hazards. Addressing these barriers and improving trial arrangements will enable more complex and extensive AV trials in Australia, facilitating the advancement of AV technologies and providing valuable insights to inform the final regulatory framework.