



Australian Government

Department of Infrastructure,
Transport, Regional Development,
Communications and the Arts



Consumer information requirements for automated vehicles

This paper **explores** new policy

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Overview

Automated vehicles are different to conventional vehicles in important ways, which could have safety and other impacts for consumers. Consumers will need accurate information when considering purchasing a vehicle with an Automated Driving System (ADS), or an ADS-based service such as a subscription to a mobility service.

This paper explores consumer information needs and how these may be addressed, and seeks feedback.

Key points

When considering a purchase, consumers will need to understand the design life and operational design domain of a vehicle's ADS; the roles of its human users; limitations on who can repair, maintain or modify the ADS; the potential for disablement of the ADS.

The proposed Automated Vehicle Safety Law (AVSL) addresses these consumer information needs through the creation of an automated vehicle register, and by giving an education role to both Automated Driving System Entities (ADSEs) and the new in-service regulator.

We are seeking feedback on whether the AVSL should also include:

- requirements that an ADSE ensures that certain technical information about the ADS is provided to consumers
- offences for misleading marketing of vehicles in relation to automation.

Consultation questions

We welcome feedback on all elements of the regulatory framework. In relation to consumer information, we are especially interested in the following.

12. Should an ADSE be required to ensure certain technical information is provided to consumers to inform purchasing decisions?
13. Should the AVSL include offences in relation to misrepresenting vehicle capabilities?
14. Are other measures needed to address consumer risks?

Consumer impacts of automated vehicles

There are many ways people may use automated vehicles in the future ranging from private ownership or lease for private or commercial use, to subscription to a shared vehicle service.

Vehicles with an ADS will have some important differences from conventional vehicles, and these could have consumer impacts. Some of these impacts relate to the different characteristics of an automated vehicle, and others relate to how an ADS will be regulated under the AVSL:

- **Design life** – When considering purchase, consumers will need to understand an automated vehicle’s design life, which is the period of time an ADSE will support the ADS. At the end of the design life, the ADS will need to be disabled, and the vehicle will no longer be able to be used in automated mode.
- **Operational design domain**– To choose an automated vehicle that suits their needs, consumers will need to understand the vehicle’s operational design domain, which is the set of conditions (such as locations, lighting, weather, infrastructure) that the ADS can operate in.
- **Capabilities and human user roles** – Vehicles at different levels of automation have different capabilities, and humans in the vehicle need to perform different roles depending on the level of automation – they may be a driver, a fallback-ready user, or a passenger. If a consumer is mistaken about a vehicle’s capabilities (for example, believing it offers fully driverless operation when it does not), they may use it in an unsafe way or find that it does not perform as expected.
- **Repairs, maintenance and modification** – The ADSE will need to authorise people to repair, maintain or modify the ADS. An ADS includes the software and hardware that is collectively capable of performing the dynamic driving task – so this could include extensive elements of the vehicle like the steering system. This could limit the choice of businesses a consumer could use to have work done on their vehicle.
- **ADS disablement or change for safety reasons** – If there is a serious safety issue with an ADS, the ADSE may need to disable the ADS, preventing the consumer from using the vehicle in automated mode. The ADSE can also address safety issues by changing the ADS’s capability, for example, by changing the operational design domain. This could leave the consumer with a vehicle that is not suitable for their needs.
- **ADS disablement with ADSE exit** – An ADSE could exit the market without arranging another ADSE to take responsibility for its ADSs. This would mean all ADSs in its fleet would need to be disabled, and the vehicles would no longer be able to be used in automated mode.

Addressing consumer impacts in the AVSL

A range of planned measures in the AVSL aim to address these consumer impacts. However, there are some consumer impacts that will not be addressed by these measures. We are seeking feedback on additional proposals to manage consumer impacts through better access to information.

Measures already planned

Some measures that we propose to include in the AVSL will be able to help address some of the consumer risks of automated vehicles:

- **Automated vehicle register** – The automated vehicle register will contain information for each ADS about design life, operational design domain, and authorised repairers, maintainers and modifiers. This database will be publicly searchable, allowing consumers to access up-to-date information about an ADS. More information is in the [Establishing an automated vehicle register](#) paper.

- **Regulator's education role** – The automated vehicle in-service regulator will have an education role, which may help to build broader public awareness about automated vehicles. This could include explaining concepts like design life and operational design domain, how to access the automated vehicle register, and the role of ADSEs in ensuring on-road safety of an ADS.
- **ADSE's education role** – To minimise safety risks, an ADSE will be required to provide appropriate and accessible education and training to owners and users of its ADS. Topics may include:
 - how to safely engage, operate, override or disengage the ADS
 - owner and user legal obligations and responsibilities
 - ADS capabilities, including its operational design domain, level of automation, any use limitations and restrictions on modifications
 - how ongoing system updates and upgrades are implemented, and their importance
 - maintenance and repair of the ADS.

Providing technical information before purchase

Access to information can help consumers make informed purchase decisions and avoid unsafe use of a vehicle. Although information about an ADS will be available on the automated vehicle register, this may not address the needs of consumers at the time of purchase. Access to automated vehicle register information may also require a specific Vehicle Identification Number. More importantly, at this point consumers may not yet know what type of information is relevant to their purchase decision.

To address this, the AVSL could require an ADSE to include certain technical information whenever it provides general information to consumers about its ADS or automated vehicles. This technical information could include an ADS's:

- design life
- operational design domain
- level of automation and what this means for the user.

This would make potential users and owners aware of key aspects of ADS operation and help them assess whether particular automated vehicle goods and services are suitable for their needs.

The ADSE could be required to describe in its safety management system how it provides technical information.

Consultation question

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

Preventing misleading marketing

Misleading marketing involves using inaccurate or untruthful information to describe a business's product or service. This applies to advertising via radio, television and print, as well as claims made on social media and business websites. Failure to mention specific information can also be misleading.

There are no vehicles with an ADS currently available commercially in Australia. However, there are a range of Advanced Driver Assistance System (ADAS) features available in vehicles currently on the market. ADAS are driver aids: they assist the driver, but they do not perform the entire driving task.

Some ADAS systems, such as those which combine lane keeping assistance and adaptive cruise control, represent level 2 driving automation. Without a clear understanding of system capabilities, it can be difficult to distinguish between a level 2 system that can control steering, acceleration and braking on a sustained basis, and a level 3 ADS that can perform the entire driving task some of the time. The key difference is that the driver would not need to monitor the road when a level 3 ADS is operating, and once the AVSL is in force, an ADSE would be responsible for the safe operation of the vehicle. These differences are explained in more detail in the [What is an automated vehicle?](#) paper.

At the moment, there are no standard terms used to describe vehicle features across different levels of driving automation. Car manufacturers use brand-specific names for their vehicle features, and this can make it difficult for consumers to compare features across brands. It also means that features can be given names that imply a higher level of automation than the feature is capable of.

As these driver assistance features become more readily available, there is the potential for consumers to confuse these features with automated driving systems. This will introduce new safety risks such as consumers misunderstanding their role in ensuring safety when driving, inappropriate or dangerous user behaviour and accidents, injury or death.

Risks arising from consumer misunderstanding of vehicle capability could be partly addressed by introducing restrictions on the way vehicles could be marketed and advertised. These offences would be intended to apply broadly to any person undertaking marketing of a vehicle. The AVSL could include offences for misleading marketing of vehicles in relation to automation, including:

- misrepresenting a vehicle's capability, including implying the vehicle has an ADS when it does not
- use of restricted terms to describe a vehicle that has not been approved as complying or substantially complying with the relevant national road vehicle standards for an ADS
 - restricted terms could include descriptors that could only reasonably and safely be applied to a vehicle with an ADS, for example 'driverless', 'automated vehicle', 'self-driving'
 - restricted terms would be contained in a legislative instrument to make it easier for them to be updated over time to respond to developments in language used about automated driving systems.

The requirements proposed above are similar to those the United Kingdom has proposed to regulate misleading marketing of vehicles, as part of its Automated Vehicle Bill.

Consultation questions

13. Should the AVSL include offences in relation to misrepresenting vehicle capabilities?
14. Are other measures needed to address consumer risks?