



Australian Government

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



# Key concepts

## This paper explains background information

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**Table 1** explains the key concepts used in the consultation materials. The terms used are for ease of reference and may change with the development of the bills to implement the automated vehicle safety law.

**Table 1: Key concepts**

Term	Explanation
<b>Advanced driving assistance system (ADAS)</b>	Driver assistance features that can perform a range of functions, such as controlling steering, accelerating and braking; and providing warnings to the driver. These include adaptive cruise control, lane keeping or parking assistance. Some ADAS features that combine adaptive cruise control and lane centering represent level 2 driving automation in the Society of Automotive Engineers taxonomy. <sup>1</sup>
<b>Australian Road Rules</b>	Model laws that form the basis of the road rules of each Australian state and territory, containing basic rules for motorists, motorcyclists, cyclists, pedestrians, passengers and others. The Australian Road Rules themselves have no legal effect. For the most part, each state and territory has copied the Rules into its own laws, with some localised variations.
<b>Automated Driving System (ADS)</b>	The hardware and software that are collectively capable of performing the entire <i>dynamic driving task</i> on a sustained basis
<b>Automated Driving System Entity (ADSE)</b>	A corporation that is certified as responsible for an <i>ADS</i> in a specific vehicle or vehicles under the <i>AVSL</i> .
<b>Automated Driving System (ADS) feature</b>	The <i>ADS</i> 's design-specific functionality at a given level of driving automation within a particular operational design domain.
<b>Automated vehicle</b>	A vehicle equipped with an <i>ADS</i> .

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<sup>1</sup> SAE International, '[SAE Levels of Driving Automation™ refined for clarity and international audience](#)', SAE International, 2021, accessed March 2024.

Term	Explanation
<b>Automated vehicle in-service regulator</b>	A new regulator to be established under the <i>AVSL</i> . It will be responsible for regulating <i>ADSEs</i> and other parties with an influence on the safe operation of an <i>ADS</i> during its on-road life.
<b>Automated vehicle register</b>	A publicly available register that will have information such as the: <ul style="list-style-type: none"> <li>• identifying the <i>ADSE</i> responsible for each <i>ADS</i></li> <li>• description of components that make up an <i>ADS</i></li> <li>• <i>design life</i> and operational design domain of the <i>ADS</i></li> <li>• repairers, maintainers or modifiers authorised to work on the <i>ADS</i>.</li> </ul>
<b>Automated Vehicle Safety Law (AVSL)</b>	A proposed Commonwealth law to ensure the in-service safety of <i>ADSs</i> . The law will primarily regulate <i>ADSEs</i> through risk-based and safety-outcome focused duties to ensure the safe operation of an <i>ADS</i> over its life.
<b>Conventional vehicle</b>	A vehicle without an <i>ADS</i> .
<b>Data Storage System for Automated Driving</b>	Records and stores vehicle data from significant interactions between the driver and the <i>ADS</i> , including: <ul style="list-style-type: none"> <li>• to identify who or what was controlling the vehicle at a given time</li> <li>• whether the <i>fallback-ready user</i> was requested to assume control of the vehicle.</li> </ul>
<b>Design life</b>	The length of time the <i>ADSE</i> has identified that it will support the safe operation of the <i>ADS</i> .
<b>Dynamic driving task</b>	All of the real-time functions that are required to drive a vehicle in on-road traffic. These functions include: <ul style="list-style-type: none"> <li>• steering</li> <li>• accelerating and decelerating</li> <li>• detecting and responding to objects and events on the road and in the driving environment</li> <li>• planning manoeuvres, such as turning and lane changes</li> <li>• controlling the lights, horn and other signals, and using them to make the vehicle more noticeable.</li> </ul> <p>Strategic functions, such as trip scheduling and destination selection, are not part of the dynamic driving task.</p>
<b>Fallback-ready user</b>	A person in a vehicle with an <i>ADS feature</i> at level 3 driving automation who is qualified and able to operate the vehicle, and receptive to a <i>transition demand</i> from the <i>ADS</i> .
<b>First provision</b>	When a person applies for an approval under the <i>Road Vehicle Standards Act 2018</i> and <i>Road Vehicle Standards Rules 2019</i> to provide a vehicle to the Australian market for the first time.
<b>Law enforcement and emergency services interaction protocol (LEESIP)</b>	A document prepared by an <i>ADSE</i> to provide information on how law enforcement and emergency personnel can safely interact with an <i>ADS</i> when it is in use. This includes: <ul style="list-style-type: none"> <li>• how to identify <i>ADS</i> vehicles</li> <li>• how to intercept or redirect an <i>ADS</i> vehicle</li> <li>• how to access <i>ADS</i> data</li> <li>• how to safely interact with an <i>ADS</i> at a crash scene.</li> </ul>

Term	Explanation
<b>Minimal risk condition</b>	A stable, stopped state that an <i>ADS</i> or <i>fallback-ready user</i> can bring the vehicle to in order to reduce the risk of a crash.
<b>Operational design domain</b>	The conditions in which an <i>ADS feature</i> is designed to be used (e.g. location, weather conditions, driving modes).
<b>Person capable of driving</b>	A person in a vehicle with an <i>ADS feature</i> at level 4 or 5 driving automated who is sitting in the driving position in the vehicle and is qualified and able to operate the vehicle.
<b>Remote ADS assistance</b>	When a person located outside the vehicle provides the <i>ADS</i> with advice to navigate a situation it cannot manage.
<b>Remote driving</b>	When a person who is not sitting in the driver's seat does all or part of the <i>dynamic driving task</i> .
<b>Remote operation</b>	Used in a driverless <i>ADS</i> to help the vehicle continue its trip when it comes across a situation it cannot manage. This term covers both remote driving and remote assistance.
<b>Road Vehicle Standards Act 2018</b>	An Australian law that sets nationally consistent standards for the safety, environmental, and anti-theft performance of all road vehicles being provided to the Australian market for the first time.
<b>Safety management system</b>	A set of organisational structures, accountabilities, policies and procedures that shows how the Automated Driving System Entity (ADSE) will meet its minimum safety requirements.
<b>Society for Automotive Engineers (SAE) levels of driving automation</b>	A taxonomy that sets out levels of driving automation based on functionality. Levels 1 and 2 of driving automation refer to driving automation systems where a human driver still performs part of the <i>dynamic driving task</i> . At levels 3, 4 and 5 of driving automation an <i>ADS</i> performs the entire <i>dynamic driving task</i> on a sustained basis.
<b>Transition demand</b>	An alert from a conditionally automated (level 3) <i>ADS feature</i> to a <i>fallback-ready user</i> , requiring the fallback-ready user to either continue the <i>dynamic driving task</i> or bring the vehicle to a <i>minimal risk condition</i> if necessary.