

Note: Where available, the suggested text was used for the purpose of this introduction, it is not an endorsement for a particular wording.

1.2	ADS present challenges to the safety regulator that require new concepts, tools, and methodologies in addition to those historically used for previous vehicle technologies and systems.
1.5.6	The requirements recommended in this document address misuse prevention and the safety of user interactions such as transitions of vehicle control
1.5.8	The ADS requirements must address the diversity of driving conditions and behaviours that may arise singly and in combination within the ODD.
1.5.9	In addition, the requirements must address ADS that may be designed to operate in more than one ODD. As long as the ADS safely performs the DDT within each ODD, there is no reason to limit the definition of sets of ADS capabilities designed to operate the vehicle under separate sets of ODD conditions.
1.7.8.2	The safety benefit from ADS is achieved when ADS performance is safer than conventional human driver performance. From this perspective, in general, the safety level of ADS performance shall be equal to or higher than the safety level of careful and competent human driver performance.
1.7.8.2 (bis)	The requirements recommended in this document aim to ensure that each ADS is capable of performing the entire DDT to the extent necessary to operate the vehicle within the ODD of the ADS. Because the performance of tactical and operational functions is dependent on the prevailing traffic conditions, these DDT requirements specify that the ADS must demonstrate behavioural competencies across traffic scenarios covering its ODD. The behavioural competencies inherently require functional capabilities to perform the DDT.
1.7.8.3	These recommendations intentionally omit specifications for individual DDT functions. For example, the recommendations do not include specific specifications for lateral or longitudinal control as a general matter. As noted above, performance of the DDT is dependent on traffic conditions where such functions cannot be limited to representative specifications. For example, there is no way to specify a particular measure of lateral control that would be appropriate in all circumstances. ADS safety involves real time tactical and operational adaptation to dynamic road conditions in the ODD. Tactical and operational functions are interdependent where the complexity of their interactions needs to be assessed under diverse traffic conditions.
1.7.9.1.	Ensuring the safety of interactions between ADS and their users demands a human-centred focus on user needs, strengths, and weaknesses.
1.7.9.3	These recommendations address user understanding of the ADS configuration, intended uses, and limitations on use, simplicity in defining and communicating user roles and responsibilities, clarity and commonality across ADS controls, requests, and feedback, and both prevention of reasonably foreseeable misuse as well as safeguards in the event of reasonably foreseeable misuse.
1.7.9.4.	The recommendations encourage Safety Management Systems that integrate Human-Centred Design Processes to ensure safe interactions between ADS and their users.
1.7.9.5.	These human-centred processes should include analyses by qualified personnel of user needs and risk, setting safety and usability objectives, specifying user requirements and ensuring user understanding and context to produce design solutions that meet the requirements.
1.8.5	This document recommends a feature-based assessment of ADS. In cases where an ADS has more than one feature (i.e., is designed to operate in more than one ODD), each feature should be assessed to ensure that the ADS provides the functions necessary for performance of the entire DDT within the feature's ODD.
5.1.	Subsections 5.8, 5.9, and 5.10 concern ADS performance of the DDT. The recommended requirements have been drafted for worldwide application. These requirements, therefore, do not specify technical performance limits due to the diversity of ODD-specific conditions and requirements that may influence safe performance of the DDT.
5.2.	Driving involves real-time risk management under prevailing traffic conditions. Therefore, safe ADS performance of the DDT depends upon the conditions presented under each individual scenario.