

This document contains changes to sections of document FRAV-02-05-Rev.2 as accepted by the FRAV stakeholders. The terms and definitions below are proposed to enable further work on Document 5. FRAV stakeholders have raised many important questions that will be considered as the group continues working on Document 5. As such, these are working definitions that FRAV may revisit or revise as needed to complete its work.

Working draft text	Notes and explanations
2. Abbreviations and Acronyms 2.1. ADS: Automated Driving System 2.2. ODD: Operational Design Domain	<i>Add a new reference section to track abbreviations and acronyms used in the text.</i>
3. Definitions	<i>Definitions in logical (rather than alphabetical) order to facilitate understanding.</i>
3.1. “Automated Driving System (ADS)” means the hardware and software that are collectively capable of operating a vehicle on a sustained basis.	<i>An ADS should be understood as the essential hardware and software capable of driving a vehicle. Document 5 will elaborate the specific functional requirements. The J3016 concept of DDT (“functions required to operate a vehicle”) would be explicitly addressed by the ADS functional requirements specified in Document 5. Therefore, we simplify the definition of ADS as a system capable of operating a vehicle for an extended period. An ADS will be required to satisfy the functional requirements that FRAV will define in Document 5.</i>
3.2. “Operational Design Domain (ODD)” means the operating conditions under which an ADS feature is specifically designed to function.	<i>The ODD refers to the intended use and limitations on the use of ADS capabilities. The ODD applies to a feature (i.e., the ADS capabilities available for use under a defined set of conditions). The ODD chapter will define conditions that should be addressed (as applicable) in describing the ODD of a feature. Therefore, we can remove the partial list of conditions given as examples in the J3016 definition because these will be listed and defined in the ODD chapter.</i>

Working draft text	Notes and explanations
<p>3.3. “(ADS) feature” means an application of ADS hardware and software designed specifically for use within an ODD.</p>	<p><i>A feature is a set of ADS capabilities made available specifically for use within an ODD. “ADS” is in parentheses to simplify drafting of requirements. Wherever Document 5 uses the term “feature”, it should be understood as referring to the ODD-specific ADS capabilities. Depending upon the need for clarity, Document 5 can use either “ADS feature” or “feature” in drafting requirements. The definition differs from J3016 because FRAV is only concerned with Level 3-5 systems (i.e., “ADS” rather than “driving automation system”). We expect assessments to focus on features (i.e., assessments tailored to the intended use and ODD of capabilities available to the user); however, individual features may share all or part of the ADS hardware and software. In this sense, some requirements and/or aspects of an assessment may be valid for the ADS as a whole while others are specific to performance of an ADS feature within its ODD. The definition also deletes the J3016 reference to “level of driving automation” because Document 5 will define requirements where necessary based upon the ADS capabilities and limitations (e.g., driver status and availability at Level 3 where the driver performs the fallback role). Document 5 will include requirements that inherently correspond to the SAE levels of automation based upon specific safety needs applicable at each level and/or design of an ADS.</i></p>
<p>4. Operational Design Domain</p>	
<p>4.1. This chapter concerns the description of an Operational Design Domain (ODD).</p>	<p><i>In our next step, FRAV will expand this chapter with a list of elements to guide manufacturer descriptions of the ODD.</i></p>
<p>4.2. For the assessment of vehicle safety, the vehicle manufacturer should describe the ODD of each ADS feature available on the vehicle in accordance with the provisions of this chapter.</p>	<p><i>A feature is a set of capabilities specifically designed to function under the conditions described in the ODD. Therefore, an ADS may enable more than one feature where each feature has a unique ODD. FRAV will elaborate the details, but the basic concept is that the manufacturer can present any set of ADS capabilities as a feature provided that all the capabilities are subject to a single ODD. If capabilities are subject to different ODD parameters, the manufacturer should identify the differences. The main purpose of this chapter is to identify safety-critical conditions that may limit the use of ADS capabilities in a way that facilitates manufacturer communications with external parties.</i></p>