

James C. Owens  
Deputy Administrator  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue SE  
Washington, DC 20590

February 01, 2021

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Re: National Highway Traffic Safety Administration's (NHTSA) ANPRM  
Docket ID: NHTSA-2020-0106

**Munich Reinsurance  
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Dear Deputy Administrator Owens,

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Munich Reinsurance America, Inc. and Munich Re Specialty Insurance<sup>1</sup> (together, "Munich Re") are pleased to provide the following comments on the National Highway Traffic Safety Administration's (NHTSA) Advance Notice of Proposed Rulemaking (ANPRM) published on December 3<sup>rd</sup>, 2020. The remarkable achievements in the progress of automated driving systems (ADS) has inspired commercial industries to contemplate the integration of ADS into their operations. Munich Re intends to facilitate the assessment of risk regarding ADS through industry leadership and partnership with manufacturers, and by continuing to insure ADS equipped vehicles. The proposed ANPRM is well-timed to encourage a focus on safety by introducing a framework through which manufacturers and other industry partners will be able to discuss and understand future ADS development.

Munich Re supports NHTSA's creation of a governmental safety framework specifically tailored to ADS. By underwriting ADS insurance risks, Munich Re has explored many current approaches to safety analysis and monitored the development of consensus standards by industry organizations. Performance evaluation is fundamental to the quantification of risk, and the safety framework proposed in this ANPRM may provide clarity regarding ADS manufacturers' execution of intended functions and assurance of the high level of proficiency the industry has achieved.

As the automotive industry has progressed in the deployment of advanced driver assistance systems (ADAS), vehicles have been equipped with increasingly sophisticated sensors, software, and technologies that enable increased automation

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<sup>1</sup> Munich Re Specialty Insurance (MRSI) is a description for the insurance business operations of affiliated companies in the Munich Re Group that share a common directive to offer and deliver specialty property and casualty insurance products and services in North America.

of the driving function. In this ANPRM, NHTSA contemplates exercising administrative mechanisms for ADS development on an “if-equipped” basis. As part of an insurance underwriting process, it is critical to understand at the individual vehicle level if NHTSA has categorized the vehicle as being equipped with ADS. Whether performance requirements are connected to equipped features or to a new subclass of vehicles, it is not possible to insure an individual vehicle without understanding the specific safety requirements associated with the vehicle. It is already difficult that ADAS features are not identified at a VIN level, and therefore there is no confirmation in some circumstances that an individual vehicle does or does not have ADAS equipped. As vehicles in the future may be equipped with sophisticated sensors – yet may also lack performance and driving functions that would classify it as “ADS equipped” – NHTSA should require a clear indication by the manufacturer that a particular vehicle is capable of performing sensing, perception, planning, and control at a level of proficiency that is in alignment with the proposed safety framework. The information should be made available to the insurance industry in such a way that an insurer is able to confirm a specific vehicle is “ADS equipped” in accordance with NHTSA’s safety framework.

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While the four primary functions of sensing, perception, planning, and control identified by NHTSA are critical factors in the performance evaluation of ADS, another key goal outlined in this ANPRM is the identification and management of safety risks related to ADS. The primary functions identified are critical to the development of ADS, but assessing performance in the context of the intended operational environment is essential to the identification and management of safety risks. Currently, ADS manufacturers utilize their own methods and language to define the operational design domain (ODD). The proprietary nature of the ODD definition makes it difficult for an insurer to achieve a clear understanding of the appropriate locations for particular ADS operation. NHTSA should require manufacturers to clearly report the appropriate and well-defined ODD for any ADS that will be deployed, whether in a limited or full capacity. Various organizations have initiated efforts aimed at creating terminology or a lexicon to adequately and comprehensively describe the ODD for ADS. However, given the subjective nature of describing the variations in physical operating environment, having one lexicon that will be utilized in reports to NHTSA will assist insurers with industry-wide risk analysis and mitigation.

The nascency of ADS development creates challenges for transparency into reporting; however Munich Re supports requiring reporting and disclosure of ADS development information for deployed ADS. As manufacturers have built statistical confidence in matured software through testing, Munich Re has provided insurance and observed the development of increasingly proficient process and engineering measures. Continued insight into ADS manufacturers’ execution of intended functions and level of proficiency is critical to the underwriting of ADS risk. As ADS developers progress toward the deployment of ADS in a limited or full capacity, it will be critical to have

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transparency regarding the acceptability of process and engineering measures, as well as a clear indication of performance within the intended operational environment for a particular vehicle.

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Insurance will play a critical role in the wide-scale adoption of ADS, and Munich Re is actively developing capabilities that will allow the continual support of this industry as it emerges. While the business models related to commercial deployment of ADS are being developed, Munich Re is happy to work with NHTSA to better understand the identification and management of safety risks and support the deployment of this life-saving technology. Munich Re commends NHTSA in the proposal of this ANPRM and its critical role of guiding and facilitating the development of innovative technologies in a manner which does not stifle ingenuity in approach or execution.

We appreciate the opportunity to provide these comments to NHTSA. If you have any questions, please feel free to contact me at (609) 243-4759 or [mscrudato@munichre.com](mailto:mscrudato@munichre.com).

Regards,



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