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Titel des Beitrags: Virtual Vehicle Design based on Key Performance Indicators Assessing the Vehicle Portfolio

Abstract: This paper focuses on the manufacturer's conflict in the conceptual design of commercial vehicles between highly customized special vehicles and the greatest possible degree of standardization. Modularity and standardization are crucial success factors for realizing high variance at the best cost efficiency in development and production as well for achieving the highest quality standards at reduced efforts for technical validation. The presented virtual design approach for commercial vehicle concepts allows for purposeful design and integration of new concepts and technologies on the component level in an existing product portfolio - not neglecting manufacture's portfolio requirements concerning standardization and modularity. The integrated tool chain helps to bring trade-offs to a head that exist in balancing between dedicated vehicles with best customer-relevant characteristics and standardized vehicles with the highest degree of commonality. For this, one core aspect is KPI-based portfolio assessment which is presented in the focus of this paper. The embedding in an integrated tool chain, its setting and functionality are outlined in overview.

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