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## **DEVELOPMENT OF CRASH TEST DUMMIES – REQUIREMENTS OF THE AUTOMOTIVE INDUSTRY**

<sup>1</sup>Bortenschlager, Klaus\*, <sup>1</sup>Gehre, Christian, <sup>2</sup>Hartlieb, Markus, <sup>3</sup>Wernicke, Philipp

<sup>1</sup>PDB-Partnership for Dummy Technology and Biomechanics, Germany

<sup>2</sup>Daimler AG, Germany

<sup>3</sup>BMW Group, Germany

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**ABSTRACT** – The general requirements concerning occupant protection for the car industry are continuously increasing. Meanwhile, most of the cars available have a high level of passive safety that helps occupants to survive even severe car crashes. Therefore, the focus is now also on the reduction of less severe injuries.

In order to assess the likelihood of injury during a given crash scenario, a number of different anthropomorphic test devices (ATD), so called crash test dummies are used. ATDs are designed to have a human-like behaviour under specific loading conditions. Furthermore, they are equipped with a variety of sensors to quantify the loading. For the development of safety systems like airbags or belt systems, it is essential to obtain reliable test results. Therefore, specific attention is paid to repeatability and reproducibility.

This paper is focused on the consequences of the change of dummy requirements during their life-time respectively the development process. As a result of the implications on the users, an ideal development process is proposed by taking into account the needs of all stakeholders involved.