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Sommario/riassunto	This book comprises the proceedings of the conference “Faszination Hybrider Leichtbau 2018”, which took place in Wolfsburg. The conference focused on new methods and technologies for the development and production of multifunctional and hybrid lightweight solutions in large-scale vehicle manufacturing. Further, it promoted the exchange of insights and lessons learned between experts from

industry and academia. Lightweight design and construction are key technologies for the development of sustainable and resource-efficient mobility concepts. Material hybrid structures, which combine the advantages of different materials (e.g. fiber-reinforced plastics and metals), have a high potential for reducing weight, while simultaneously expanding component functionality. However, the efficient use of functional integrated hybrid structures in vehicle construction, requires innovations and constant developments in vehicle and production technology. There is a great demand for affordable lightweight construction in mass production that takes into account the increasing requirements in terms of variant diversity, safety and quality-particularly with regards to new methods and technologies. The Editors Prof. Dr.-Ing. Klaus Dröder is Professor of Manufacturing Technologies and Process Automation, as well as, Head of the Institute for Machine Tools and Production Technology (IWF) at the Technische Universtität Braunschweig. He is also a member of the board of the Open Hybrid LabFactory. His research interests include technological and automation issues in current and future process chains, with a focus on the implementation of production strategies that enable the efficient and flexible manufacture of functionalized products. Prof. Dr.-Ing. Thomas Vietor is Head of the Institute for Engineering Design (IK) at the Technische Universität Braunschweig and is a member of the board of the Open Hybrid LabFactory. His research focuses on the integration of product development and production technology, the integration of product development and industrial design, and the use and further improvement of CAx processes in product development.