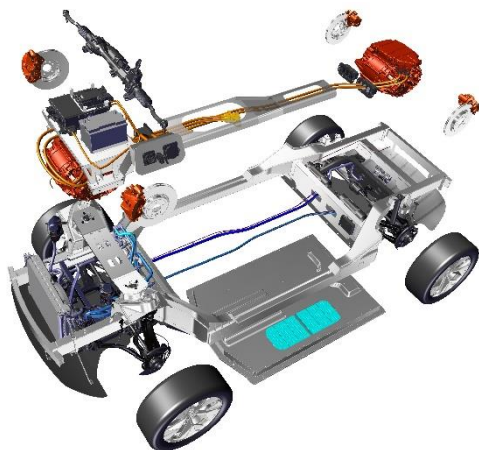


TWO IS BETTER THAN ONE: BENTELER E-MOBILITY OFFERS TWO PLATFORMS, REDUCING COSTS AND TIME TO MARKET

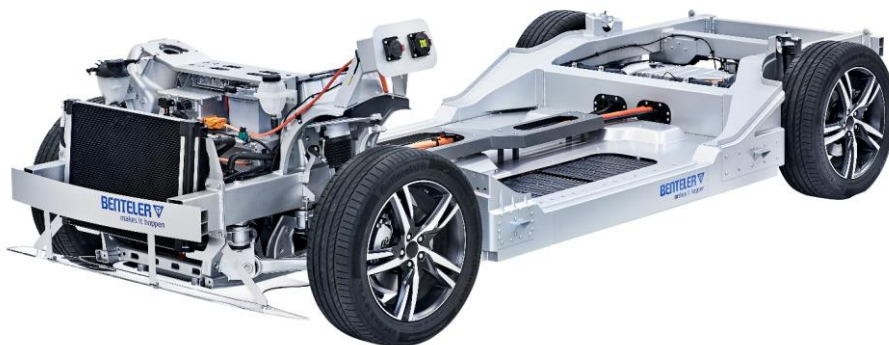


Electric vehicles have a completely different architecture to cars with combustion engines. This is because of the complex e-powertrain, which must be integrated into the vehicle for maximum functionality and efficiency. Our solution is the BENTELER Electric Drive System (BEDS). It is an open platform, which we have, together with our cooperation partner Bosch, successfully launched globally. The platform combines our e-mobility systems such as Integrated E-Chassis Modules and our modular battery pack. Together with our partners Bosch, Vibracoustic and Pininfarina, we have optimized the interfaces to the e-powertrain, EE and body.

The current BENTELER Electric Drive System 2.0 is a showcase for the benchmark in electric vehicle platforms for the D to F segments. Meanwhile, the market has shown a strong demand for platforms in the smaller segments B and C, too. In addition to a new 3.0 version of the D-F platform, BENTELER is also working on a platform for the lower segment. Focus is on cost-efficiency and robust design, taking into account the lessons learned from the earlier platform development process.

By engineering these platforms to a maturity level ready for series application development, the customer saves a high portion of engineering costs and up to one year in reduced time-to-market. In addition, the customer benefits from the scale effects of the platform modularity and scalability. A carry over of designs and hard points, and the flexibility of the platform to vehicle dimensions, such as track width and wheelbase, is a huge lever for the efficiency of our platform solution. This is even more important as high production volumes are not yet materializing in the e-mobility market. For niche applications, a platform line-up is also often the only route to commercial success.

THE BENTELER ROLLING CHASSIS: A STRONG ENABLER FOR E-MOBILITY APPLICATIONS



Based on the BEDS platform, we also offer a rolling chassis solution, often called a "skateboard". This is the integration of the platform in an underbody, covering the full functionality of the e-powertrain. The BEDS rolling chassis is provided as a steel solution for unibody architectures or with an aluminum underbody for body-on-frame vehicles. The rolling chassis is a very efficient solution and an enabler for setting up new electric vehicles very quickly, with reduced complexity and high quality. All using the scale effects of the BENTELER platform.



Dear All,

Unibody or body on frame? As a platform supplier we are often asked this. The answer is as always: "It depends." For us, a unibody concept makes more sense with higher volumes because the amortization of press tools and investment is quite high. For lower volumes, a skateboard concept makes more sense. Actual benchmarks show there is no difference in vehicle performance and both solutions are doing well in the market.

In the end, you need to assess which concept fits your strategy and business plan best. We can help you decide; we offer both concepts and have the experience in industrializing them.

Regards,
Marco Kollmeier

For further background about our e-mobility solutions please visit our website: www.benteler-automotive.com/e-mobility

Questions? Please contact:



Marco Kollmeier
Vice President
Marco.Kollmeier@benteler.com



Julia Hansen
Business Development
Julia.Hansen@benteler.com

Impressum:
BENTELER International AG
Schillerstraße 25-27
5020 Salzburg, Austria