


*we keep you ahead*



*vehicle engineering*

The future is a shapeable concept.

**MBtech**

Mercedes-Benz technology 



## Giving you a valuable advantage: innovative design solutions and systematic testing.

### **You choose the level of support. We provide it.**

The product creation chain leading to an accomplished automobile is long and complex. MBtech is fully attuned to this. From the initial conception phase and sketches up to development, three-dimensional visualization, and modeling, and finally volume production, we take on complete projects or portions thereof: as you wish. Every step is accompanied by our vast experience and competent specialists. We also offer the on-site support of our reliable and committed experts, who infuse their exclusive technical know-how into your project, thus ensuring fast execution and punctual results. Of course, the same applies to the cost-conscious implementation of nearshore and offshore solutions, too.

### **Of intuition and logic.**

Design, numeric calculation, and testing: Whatever project you place in our hands, we bring you to your destination with a vision to the future, combining form and logic to produce a functionally optimal result. MBtech delivers comprehensive engineering services for new vehicle components as well as adaptation engineering.

### **MBtech vehicle engineering:**

- ▮ Design
- ▮ Body Development
- ▮ Chassis Development
- ▮ Full Vehicle Integration
- ▮ Vehicle Testing & Test Facilities
- ▮ Manufacturing Engineering
- ▮ CAx Methods, Training & Support

# Shapely and always viable: Class A development and technical design.

## **From inspiration to reality.**

Our designers and engineers are specialists in developing ideas and bringing them to life, adapting desired forms to the functional reality. In times of comparable quality, it's this fusion of utility and esthetics that is so decisive for the success of an automobile. MBtech produces Class A and Class B surfaces for exteriors and interiors based on raw data, sketches, and specifications. Our experts are masters of the latest engineering and design tools, such as CATIA, alias, ICEM Surf, and many more. We allow you to realistically visualize the results of our efforts through animation, and we also construct physical models, from prototype components to roadworthy show cars.

## **Beyond doubt.**

Regardless of how overwhelming or inspiring your preferred automotive shapes are, you can rest assured in the knowledge that all our work is technically feasible. We guarantee it, meticulously verifying your stylistic input and checking compliance with standards, regulations, and all the parameters essential to smooth and economical production.





## Components, modules, and systems: our professional contribution to the perfect whole.

### **Body Development for the whole vehicle.**

Whether it's bodies-in-white, exteriors, or interiors, MBtech's broad range of services has the entire development process chain covered. Our concepts, designs, and calculations interact to put your project on the right path. And we're just as skilled with lifelike simulation and building physical component prototypes as we are at development assembly. Every desired component, every module, and every system has the benefit of our cumulative experience and a proven reconciliation of creativity, technical demands, and regulatory requirements.

### **Body-in-white.**

We develop full body-in-white structures for our customers, including doors, hoods, hatches, and mounted parts. And you know you can rely on MBtech, because you are fully aware of just what a crucial role the body plays in a vehicle's overall success. Our expertise in production planning is just as vast as it is with product development. And because we consider this to be such an essential juncture of automobile production, we're always there to support you.

### **Exteriors.**

The interplay between the bodyshell and mountings, between different materials with different physical properties, and the need for an absolutely precise fit and perfect joints: it all demands careful attention. MBtech always has it covered. Take our development of complete cabs for commercial vehicles: It's another example that proves how our customers count on our knowledge and practical everyday experience.

### **Interiors.**

We support automakers as well as system and component suppliers in developing interior solutions, from the specifications sheet to the end product. One of our extraordinary strengths lies in the development of automotive interiors, seats, and coverings, whether it involves the coordination of larger scale projects or subtasks such as providing detailed drawings. All MBtech employees in action for you are experts in the latest methods and tools who are distinguished by their superior service-oriented approach.



### **Chassis Development.**

Axles, undercarriages, steering, support structures, power take-offs, exhaust and tank systems, and engine peripherals: MBtech's comprehensive portfolio includes conception, design, detail engineering, adaptation, and optimization of all these components and systems. We accompany you from the concept and module development stages to prototype manufacturing, bolstered by the flexible and customer-oriented deployment of the required design tools.



## Holistic and proficient engineering for multipurpose testing and full vehicle integration.

### **Putting it all together.**

From installation space analyses and packaging to complete vehicle kinematics, MBtech engineers are experts in integration along the entire product creation cycle. Precise calculation and realistic simulation fortified by thorough testing ensure accurate, production-like results. We can thereby verify the feasibility of your ideas right up to the point of production readiness. Naturally, MBtech's broad services portfolio includes technical documentation, stock list maintenance, and revision management.

### **Vehicle Testing: leaving nothing to chance.**

MBtech's vast testing know-how extends throughout the development process and product lifecycle of an automobile or component, and we're there for you at every stage along the way. The desired testing is prepared and conducted, and the results evaluated flexibly and precisely when needed. From the body to the chassis and powertrain, the extensive engineering experience of our trial teams and test drivers plays a fundamental role. Our integrated development workshop is equipped to build test vehicles, construct systems from individual modules, and also make modifications. Always expect to have the best possible equipment at your disposal for all your trials, including the necessary electrical and electronic technology.

### **Testing facilities and climatic extremes.**

MBtech is the longstanding joint operator of two internationally renowned test tracks in Papenburg, Germany, and Laredo, USA. Time and again, internationally successful companies and world brands rely on our seamless project management, maximum safety, and top test performance. Our test drivers are also in action on endurance runs 365 days a year on roads throughout the world and in all imaginable climates. Excellent management and dependable logistics are included.

# Consulting, planning, support, and training. MBtech: more than just engineering.



## **Manufacturing Engineering.**

We develop your products, keeping manufacturing suitability in focus throughout the product creation chain. This is something we do so well because MBtech also possesses wide-ranging expertise in production planning and overall production engineering, including upstream and downstream processes. We focus on all relevant technical and economic parameters, including product cost optimization, ramp-up and supply management, production process optimization and quality assurance processes, as well as logistic process planning and cost optimization. We also engineer plants and create production systems that enable you to execute cost-effective manufacturing processes.

## **CAX training and other customer support services.**

Our engineers are considered the leaders in the automotive sector when it comes to their practical CATIA V5 engineering and design tool experience. And we are pleased to pass on this expertise as well as our knowledge-based engineering proficiency to your employees through fast and effective training. Following the training, we then offer a variety of programs to ensure that this knowledge can be smoothly deployed at your company, including a hotline for all your questions, on-site application support, and even the help of our CAX experts to resolve exceptional problems. We also provide assistance in putting your engineering and design tools and the best-suited IT into operation.



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**vehicle engineering**

**powertrain solutions**

**electronics solutions**

**consulting**

Design  
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Chassis Development  
Full Vehicle Integration  
Vehicle Testing & Test Facilities  
Manufacturing Engineering  
CAx Methods, Training & Support

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