




we keep you ahead



Global expertise in automotive solutions.

MBtech

Mercedes-Benz technology 

MBtech: getting you to the future even faster

We're focused on your goals.

Enthusiastic, passionate, and committed to automobiles. That's what we are at MBtech, and that's what you can and should always expect from us as your automotive engineering and consulting partner. But that's not all. We strive to do more. Our passion does not end with the vehicle itself, however. It truly blossoms when we take on responsibilities for our customers. By closely identifying with your goals, we are able to fully attune ourselves and our actions to you and the way you think. And since we keep you ahead, you'll get where you're headed even faster.

We think holistically.

MBtech develops, integrates, and tests components, systems, modules, and vehicles worldwide. It's all about delivering expertise for the entire vehicle, and that's precisely what we offer, whether we're carrying out customer-specific development tasks or providing consulting services throughout the product creation process and product lifecycle. We generate unique added value by uniting engineering and consulting services, taking on individual sub-processes, producing tools and parts, and through our training and skill enhancement offerings.

development support design testing consulting

We think globally.

The automotive industry operates worldwide. So does MBtech, since we're always at the center of activity, whether it's in Europe, North America, or Asia. Because we adapt to our customers, we are present wherever they need us. Based in Germany, MBtech is a leading international engineering and consulting company. Our four segments provide services that embrace all areas of development and consulting.

■ *vehicle engineering*

■ *powertrain solutions*

■ *electronics solutions*

■ *consulting*



The advantage – brought to you by
people with understanding, courage,
and enthusiasm.





We adjust to you.

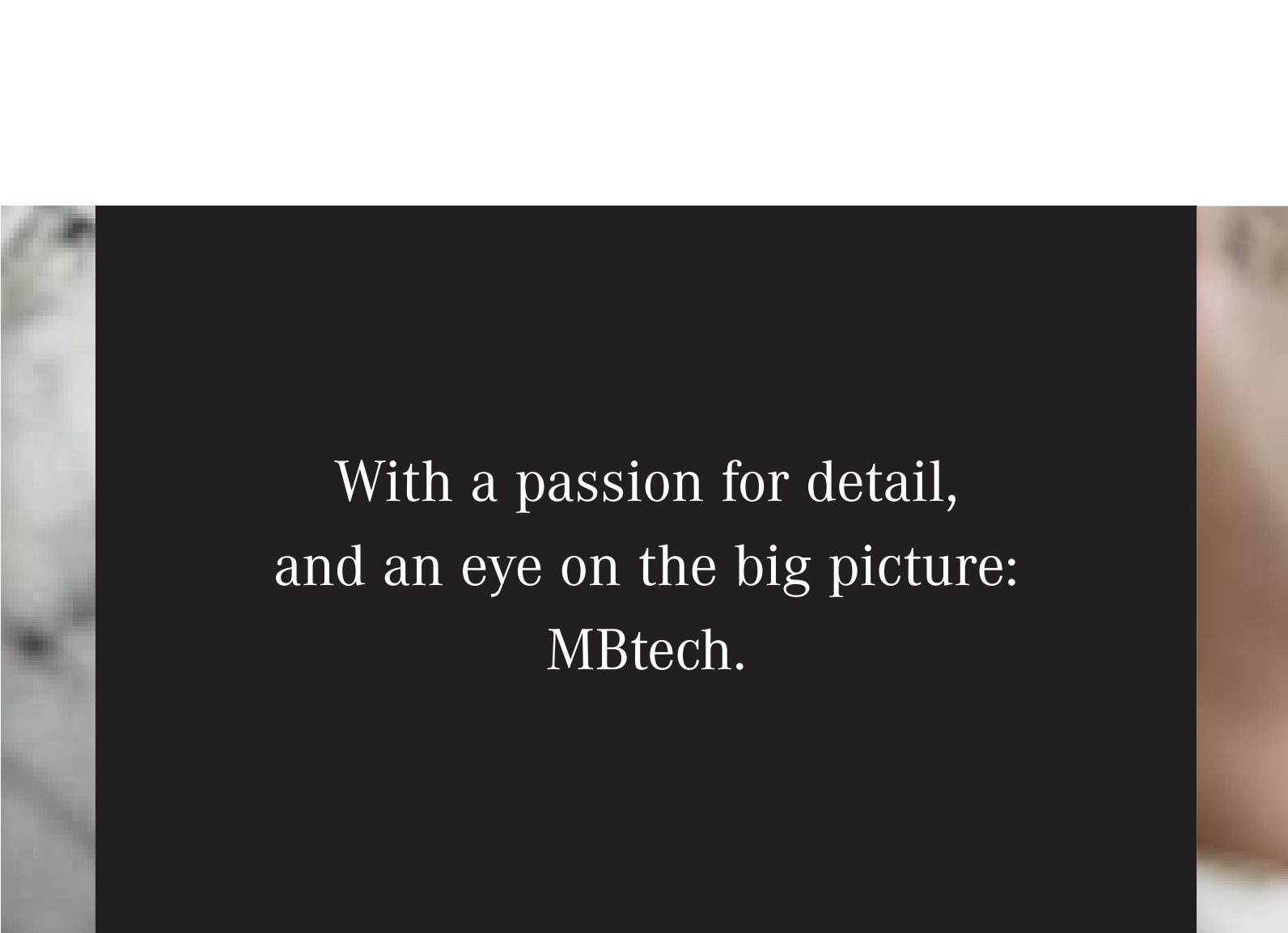
Each and every MBtech employee is highly qualified in their respective field of expertise, wherever your needs are. They are people who readily adapt to new challenges, but have only one purpose in everything they do. Namely, your success, because it's the only way we can gauge our own success. By combining proficiency with energetic zeal, we help you to be solution oriented, always operating with the desired dynamics and always responding with the required speed and agility.

Our customer-oriented products and services:

- ▮ engineering
- ▮ consulting
- ▮ operations
- ▮ training

We put perfection to the fore.

Knowledge and experience are only truly valuable if deployed flexibly. Our employees bring along a diversity of experience from every corner of the international automotive industry, from manufacturers and suppliers to consultancies and more. Our people are quality conscious, reliable, and always available, so that we can achieve perfection and serve it up with an ample portion of commitment and an extra dash of sophistication.



With a passion for detail,
and an eye on the big picture:
MBtech.

For tasks large or small, leave it to us.

Details are essential, as is a seamlessly functioning unit. But no complex system can work properly without perfect components. Therefore, words like vision and integration mean a lot to us. MBtech takes on jobs large or small, developing entire systems and individual components for passenger cars and commercial vehicles. We offer testing, inspection, integration, and consulting, and even build component prototypes. But whatever we do, from developing engines or control device software to flawlessly employing innovative design techniques, we always put things into the right perspective. And you ultimately profit from the best possible end result.

Because we leave nothing to chance.

The knowledge and experience of our staff is bolstered by the latest technology, tools, and processes for engineering, numeric calculation, simulation, and testing. We can thus execute tailored solutions with precision. And by combining our significant skills with the best technical equipment available, we also turn revolutionary ideas into reality, bringing to fruition the seemingly impossible.





Built in security.
Built in resolve. Built in dependability.



Security included.

State-of-the-art technology, seamless project management, and the model interaction between key personnel. It's the basis for guaranteeing the highest quality in the shortest amount of time. And it's your best security along the entire automotive value chain, from design and development to mass production and after sales. If need be, we even assume sub-processes, train your staff, or deliver tools and parts. At the same time, we continually work to optimize our company's efficiency so that we are always able to think nimbly and act without delay. Naturally, our progress is passed on to you.



Efficient thinking included.

MBtech not only helps generate market-oriented products, but also works hand-in-hand with you to ensure cost-effective mass production. Even during the early project planning stages, we're firmly focused on much more than just your quality expectations and deadlines. The goals are always geared to your business interests – something we achieve by efficiently combining development and production expertise with our distinct integration and interface management skills.

Discretion included.

Maybe it goes without saying, but MBtech guarantees absolute confidentiality, and every single employee accompanying you during a project stands fully behind this promise. It's our obligation. No less important is the fact that we carefully select the best suited team for the job right from the start, so you have the full commitment and binding support of the same people until the project is completed.

Shapeable: when ideas take shape and are up to every test.

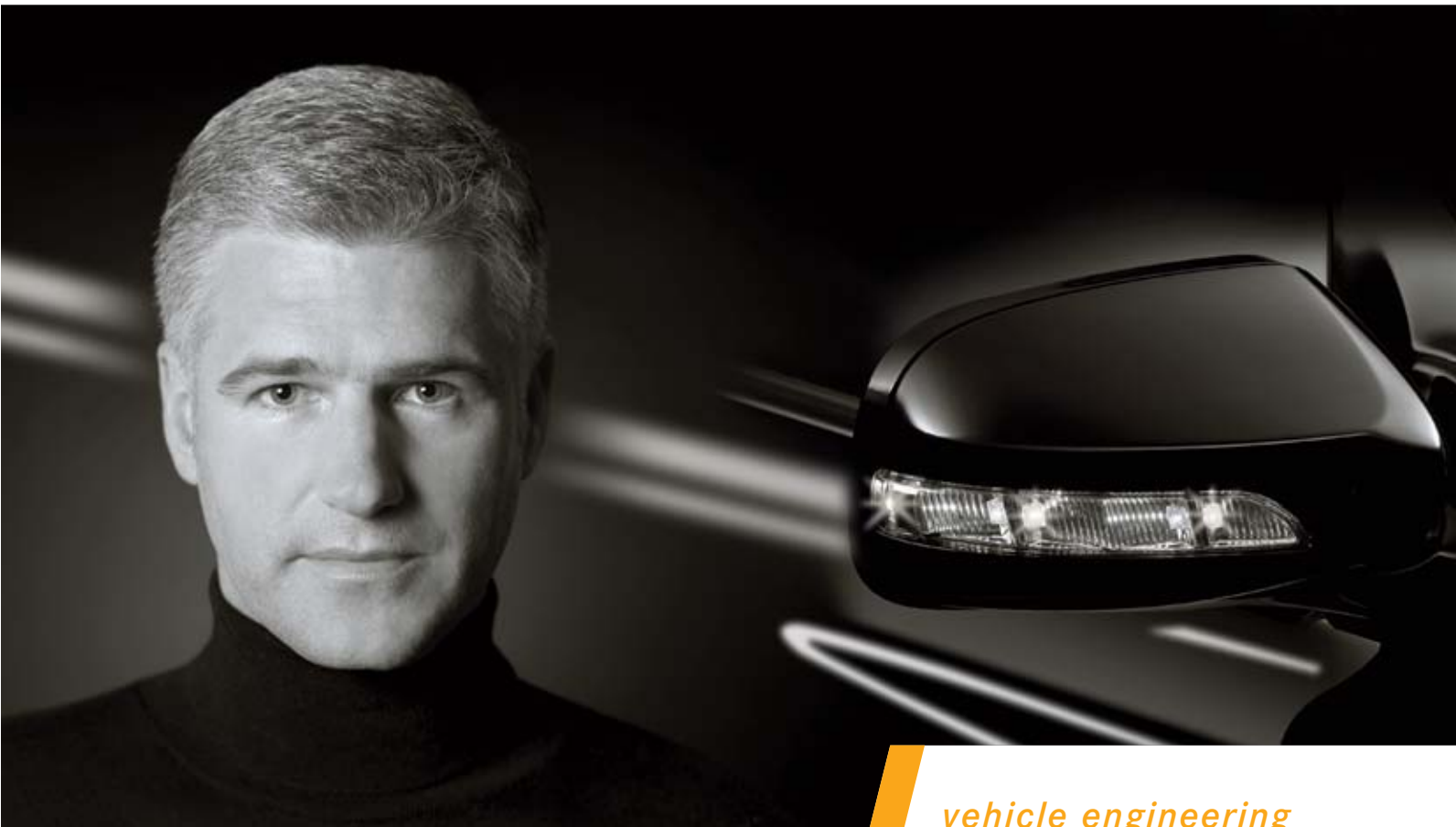
Style meets functionality.

Images dominate our perception, and shapes touch our emotions. MBtech provides innovative services for component design and numeric calculation as well as during adaptation engineering so that your customers are inspired when the engineering and production processes are all said and done. We intertwine functionality, aesthetics, and economics, finding the perfect balance between influencing factors such as durability, ergonomics, and costs in passenger cars and commercial vehicles alike.

Theory meets practice.

Engineering demands vision. That's why our customers depend on our holistic development and integration know-how when testing vehicles. MBtech takes care of preparation, implementation, and evaluation for various tests and endurance trials. Our internationally experienced engineers and test drivers have a thorough technical understanding of vehicle characteristics (and keen car senses, too). They put components, systems, modules, and complete vehicles under the microscope, resolving problems within and beyond the development and analysis processes. Furthermore, MBtech possesses proving grounds in Europe as well as the U.S.





vehicle engineering

Meet our specialties:

- ▮ **Class A and technical design:** based on your raw data, sketches, and specifications, we create class A and class B surfaces for exteriors and interiors, bringing them to life through animation, design presentations, renderings, or films
- ▮ **Body development:** from modules to full Body-in-white, plants, and plant fixtures, we're the body specialists. The design and numeric calculation of bodyshell structures like doors, engine hoods, and trunk lids are two of our core competencies. You profit from our class A experience when developing exteriors for passenger cars and commercial vehicles. We also support automakers, system and component suppliers in the development of interior solutions, from the specifications sheet to the end product. In short, our customers can count on our knowledge and practices.
- ▮ **Chassis development:** our services here range from individual components to complete systems for axles, chassis, steering, support structures, auxiliaries, exhaust and tank systems as well as engine peripherals.
- ▮ **Full vehicle integration:** using our numeric calculation and simulation know-how, we integrate components and modules along the entire product creation process. In doing so, we also support you with advanced quality management techniques (among other things).
- ▮ **Complete vehicle testing:** with access to a comprehensive array of test tracks and test benches, MBtech is a leading provider of testing services
- ▮ **Production engineering:** MBtech is your partner throughout the product creation process, from finding the design best suited to production to the production planning itself. We also design and build production plants and other facilities.
- ▮ **Techniques, training & support:** our staff members are masters of the latest engineering tools (e.g. CATIA V5, Pro/ENGINEER) and methodologies (e.g. knowledge-based engineering). During the IT implementation phase, we also offer consulting and assist you with tailored training and support solutions.

Powerful: innovative developments all along your powertrain.

The masters of propulsion.

The heart of the automobile is what sets our emotions free. We develop powertrains for passenger and commercial vehicles as well as non-road deployment, and we do it with enthusiasm. MBtech is one of the world's leaders in developing powertrains from the initial concept to mass production using state-of-the-art techniques and in close cooperation with our customers. Our passion is to come up with the best solution efficiently and right on schedule, and our expertise in planning and configuring production plants and processes is incorporated right from the product development phase. As a result, you have products that are production ready.

Our innovations, your driving force.

Advancing the powertrain is the central challenge when formulating mobility concepts for the future, and MBtech is keeping up to this challenge through its own in-house research efforts. Our customers directly benefit from the most pioneering solutions, whatever their needs. In a nutshell: MBtech keeps you ahead of the competition.





powertrain solutions

Our fields of expertise:

- ▮ **Engine concepts:** our people have the skills and experience to develop first-class engines, transmissions, and powertrain components. In doing so, we employ the latest simulation and design tools.
- ▮ **Powertrain variants:** to use engines productively they have to be deployed in a variety of vehicles. Powertrains therefore need to be adapted to different scenarios in full quality and on schedule. MBtech has a wealth of experience. We can take on the whole project independently.
- ▮ **Exhaust aftertreatment:** we develop innovative solutions for passenger cars and commercial vehicles exhaust aftertreatment based on analyses of international emission legislation and the latest research on internal combustion engines.
- ▮ **Combustion process development:** the combustion process is the key to engine enhancement. MBtech generates custom solutions for diesel, gasoline, CNG, or other alternative fuels, evaluating and certifying them using the most advanced measuring techniques. In doing so, we set new performance and fuel consumption standards for our customers.
- ▮ **Injection system development:** because they play such a central role in reducing fuel consumption and emissions, MBtech has unique expertise in the conception, simulation, and construction of injection systems. Our prototypes enable our customers to successfully develop new combustion processes and even new engine concepts.
- ▮ **Test bench design and operation:** they're the decisive engine development tool, so MBtech leaves nothing to chance when it comes to test benches. We design, build, and operate highly efficient and cost-effective testing facilities adapted precisely to the customer's testing requirements.
- ▮ **Powertrain testing in the vehicle:** endurance tests are crucial to ensuring mass-production readiness. From equipping vehicles with the right measuring technology to data evaluation, MBtech conducts your tests with the highest degree of efficiency and quality.

Controllable: effective, reliable, and customized solutions await you.

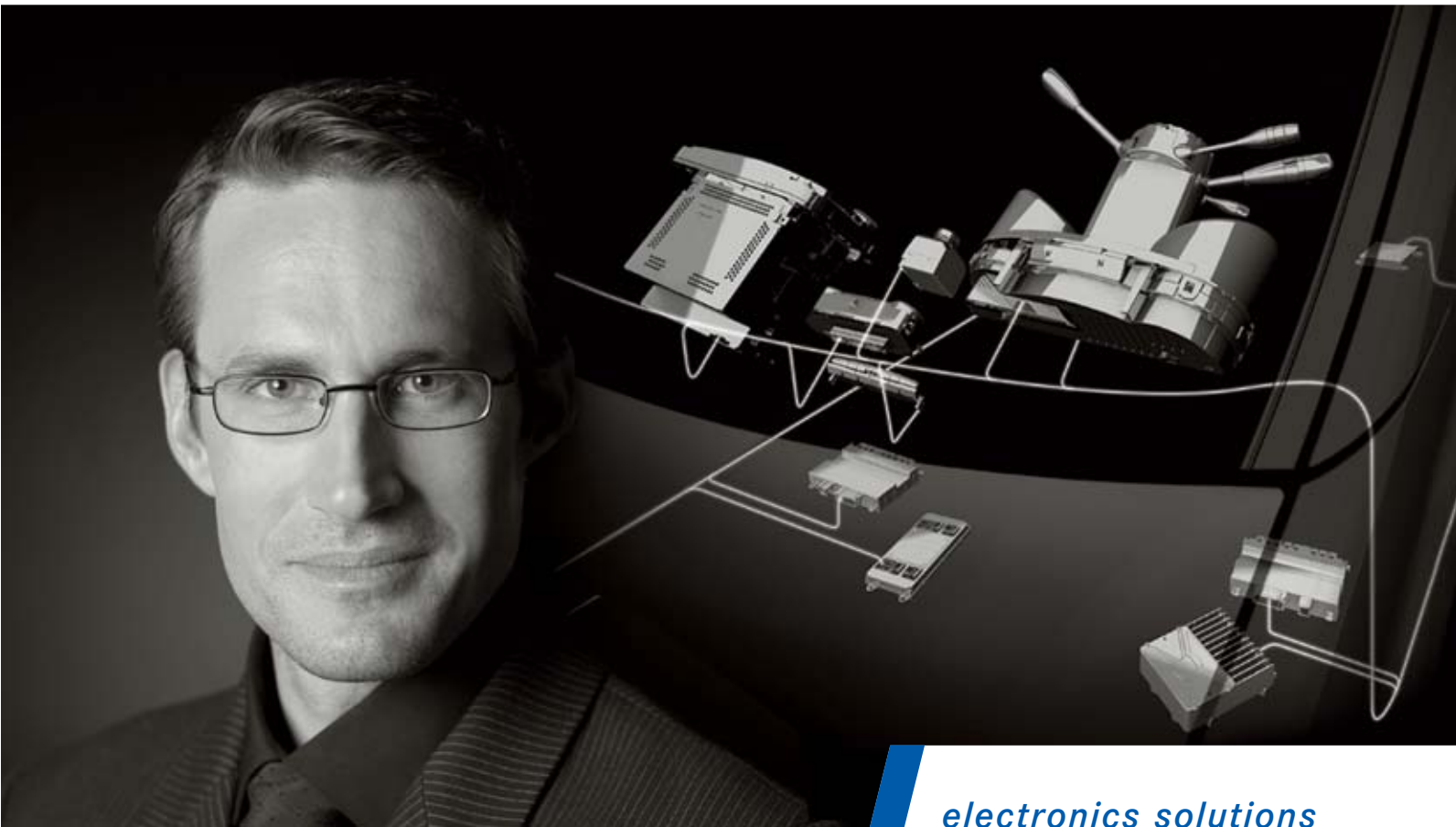
Responsible, consistent control.

Every day, we inspire our customers with unique vehicle electronics solutions. As a strategic partner, MBtech supplements your core competencies with tried and tested systems as well as special services that fit to a tee. Our techniques, tools, and reference processes represent the industry standard, providing the foundation for long term business relationships. Because ultimately, electronics are nothing without the latest technology and methodology, and an automobile is nothing without electronics.

Efficient, foresighted control.

MBtech is at home during all phases of product development, helping you set new company and industry standards. With our expertise in integrating features, software, and control devices into networked vehicle systems, we take charge of developing the electrical systems and electronics for any of your models. Through consistent testing and certification of your control devices, networked systems, components, and processes, MBtech ensures quality, reliability, and functional safety. Just watch your follow-up costs diminish.





electronics solutions

Your control specialists:

- ▮ **Systems engineering:** MBtech designs and develops control devices, electrical systems, and cable harnesses for vehicles with conventional or alternative powertrains. All of this is done in line with established development processes. We also step in as a supplier for small batches and offer support with ongoing production.
- ▮ **Software engineering:** using the latest tools and techniques, we develop and integrate software for your control devices, verify and certify compliance (OSEK, AUTOSAR, SPICE, CMMI®), and provide support with all software architecture, software quality, and diagnosis issues.
- ▮ **Test engineering:** we take care of your quality requirements with automated testing (also in real time) of the functions of single ECU or ECU networks. Made-to-order test processes, meanwhile, help you proceed efficiently and recognize defects at an early stage.
- ▮ **Validation & compliance:** MBtech assesses and certifies your electronic systems along the entire value chain, ensuring that customer and industry standards are observed using proven practices concerning reliability, quality, functional safety, validation testing, architecture, and data buses.
- ▮ **EMC services:** we offer electromagnetic compatibility measurement and testing as well as comprehensive EMC management and engineering services at Germany's largest independent and accredited EMC test center.



Sustainable: how to succeed with our technology and process expertise.

Building a lasting future.

To be successful, companies need to focus on a clear vision and explicit goals. We therefore devise product and market strategies, develop regional and functional approaches, and design comprehensive service programs for automakers and automotive suppliers. Based on up-to-the-minute research and development findings, we advise our customers how to achieve long-lasting market benefits by properly employing technologies and innovations. Moreover, we enable processes to be optimized all along the value chain using an integrated lean enterprise approach. MBtech thereby ensures that customers can sustainably improve their position compared to their competitors.

Consulting for the long term.

Customers value MBtech's execution-oriented commitment. Our consulting approach, aimed at solving problems quickly, is therefore supplemented by the customized skill enhancement programs offered through our Business Academy. Professional project management, meanwhile, guarantees that even the most intricate international projects are successfully carried out. There's no substitute here for experience, so it's no accident that our people come from automotive management and renowned consulting firms or have enriched our technological proficiency as Senior Automotive Experts.





consulting

Enduring areas of proficiency:

- ▮ **Operations strategy:** MBtech is an experienced partner for strategically aligning your company, developing custom-made efficiency programs to sustainably enhance your performance. We stand for holistic concepts and solutions founded on comprehensive automotive expertise.
- ▮ **Technology & innovation consulting:** we advise our customers about planning, implementing, and optimizing innovations and technology along the entire product lifecycle, providing unique added value by combining our honed consulting skills with genuine technology know-how.
- ▮ **Process consulting:** you profit from our extraordinary abilities when it comes to enhancing global process and systems landscapes throughout the value chain. Our consultants have the longstanding experience and profound process understanding that comes from the countless reference projects in which we successfully put lean principles into practice.
- ▮ **Project management:** we help our customers focus on their objectives and maintain command of international ventures, supporting and even managing a wide variety of projects, from vehicle and sub-assembly development to production and infrastructure planning.
- ▮ **Business Academy:** our knowledge and experience is passed on to the customer, who can then funnel it into advancing and enhancing their company's performance. Our skill enhancement programs cover the complete spectrum of consulting services we deliver. On top of that, we also offer an MBA program in "International Lean Manufacturing Consulting" in cooperation with the Ludwigshafen University of Applied Sciences (Ludwigshafen, Germany).



MBtech – a reliable partner with an unmistakable promise.

- ▮ We are there for you **worldwide** with engineering and consulting services for the automotive industry. We think globally and look to the future.
- ▮ We embrace the automotive product creation process and product lifecycle in their **entirety**.
- ▮ Whatever we do, we do it for the customer. Our **customer orientation** is at the heart of our corporate philosophy.
- ▮ We work in flexible, interdisciplinary project teams and in close **cooperation** with our customers and partners.
- ▮ Our people mobilize all their experience, knowledge, professionalism, and commitment to make our customers **succeed**.



Get in touch with us!

Nothing is more powerful or convincing than a face-to-face impression. If you are interested in our comprehensive service offerings, enticed by a certain field of expertise, or simply would like to get to know MBtech better, we'd be more than pleased to accommodate.

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Corporate headquarters:

MB-technology GmbH

Kolumbusstraße 19+21

D-71063 Sindelfingen


Germany


Fon +49 (0) 70 31 686-30 00

Fax +49 (0) 70 31 686-45 00

info@mbtech-group.com

www.mbtech-group.com

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 *powertrain solutions*

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