

FORMEL D
COMPANY PORTRAIT



IMAGE VIDEO

THE
DRIVING
FORCE.

WE ENSURE QUALITY. INTERNATIONAL, PASSIONATE, DEPENDABLE.

From development to production to aftersales:
Formel D offers professional and comprehensive solutions.

YOUR GLOBAL PARTNER.

The worldwide automotive industry has always been known for its passion for innovation and strong momentum. The latest trends – including alternative drives, an ever-increasing quality awareness and new market development – are effectively accelerating product cycles. Manufacturers and suppliers are squaring up to the new opportunities and challenges presented by these trends with the same fascination and passion that drive Formel D as their partner every single day.

We offer winning professional services and are deeply devoted to the quality that we in the team provide you. We draw on profound expertise to develop tailored concepts down to the finest detail. Formel D backs you with sustainable, quality-assuring solutions, analyzes and optimizes processes along the entire automotive value chain and guarantees smooth workflows each and every day.

EXPERTISE SPANNING OVER 25 YEARS.

Founded in 1993, Formel D has consistently advanced, expanded and successfully established itself as a dependable partner to manufacturers and suppliers. We develop quality-assuring processes to global standards straight from our headquarters in Cologne. We work with several thousands of employees to implement our solutions wherever they are needed. We are firmly rooted in the international automotive industry network and support numerous customers from day one. Our services assist you in all areas – from development to production to aftersales.

TOP PERFORMANCES - ISO CERTIFIED.

Since the initial certification in 1995 we have had our international quality standards audited on a regular basis. The operation of our management systems certified in accordance with ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and VDA 6.2 confirms a continuous improvement process within our Group that is borne jointly by all employees.

YOUR SUCCESS IS OUR CLAIM.

We work with you to define ways of achieving short-, medium- and long-term goals. Formel D offers you leading concepts and develops specific, scalable solutions that are tailored to your particular needs. We achieve convincing measurable and sustainable successes.

- **We ensure quality – 100 percent.**
Quality assurance is our core expertise and our passion. Formel D backs you with global quality standards and processes.
- **We optimize structures – for lean processes.**
Our efficient resource and process management strategy is based on in-depth analyses. Goal-oriented and standardized concepts for quick success.
- **We create confidence – systematically.**
Drawing on years of experience and backed by an extensive risk management strategy, Formel D provides effective solutions on time and on budget.
- **We offer you full service concepts – from just one source.**
As a partner to the automotive industry, Formel D understands the diverse challenges posed by this sector. Our individually scalable services support you in all realms.



▶ The team develops the best ideas
and the most sustainable solutions.

WE ARE. WHEREVER YOU ARE.

For over 25 years now, we have worked for the automotive industry and know the ropes.

WE ARE THE BENCHMARK.

The Formel D team is made up of passionate professionals from all areas of quality assurance and process optimization. The processes and concepts we develop for quality, vehicle and warranty management are industry benchmarks. We understand the challenges and problems you face in development, production and aftersales. We support you wherever in the world you need us and build dependable partnerships.

For us, effective support is synonymous with a willingness to take responsibility. We match our international teams to your projects. Formel D combines the knowledge and expertise specific to each and every company to create a highly skilled team.

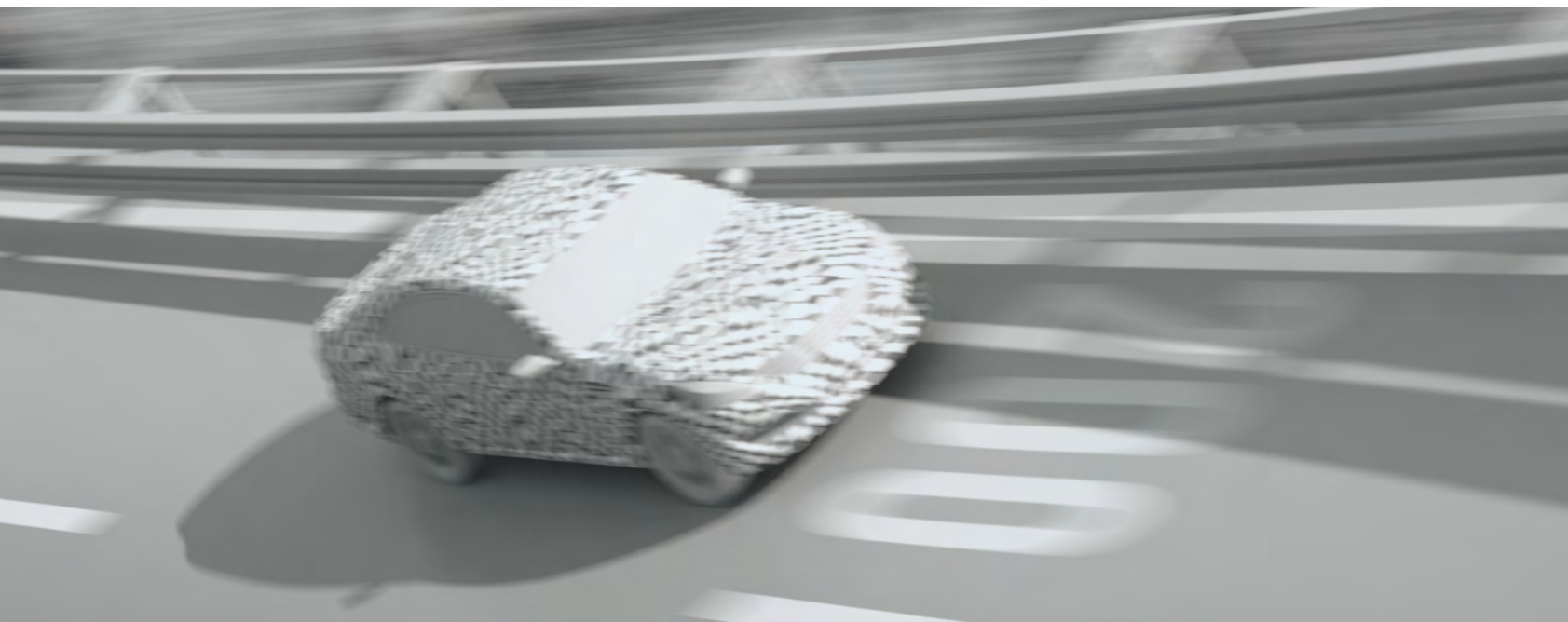
We are mobile. We are precisely where you need us to be. We are known for our short response times and flexibility. This is the momentum that drives our sector.

WE CREATE SYNERGIES THROUGH EXPERTISE.

Formel D is your dependable partner, from the development to the final phase of a vehicle's production. From our service portfolio, we provide the assistance you need in every phase of the vehicle's lifecycle. We help get your vehicle and components ready for the market, and implement and optimize your service processes. Formel D supports you worldwide with sustained quality and professionalism. We create for you important synergies through holistic solutions and concepts. Our consulting, training and qualification services ensure that know-how is communicated internally and externally. Benefitting both you and your business partners.

► We split our service portfolio into three areas, mirroring the entire automotive value chain. In each of these areas, we provide detailed analyses, precision planning, reliable implementation and expert advice and support.

PRODUCT DEVELOPMENT ►	PRODUCTION ►	AFTERSALES ►
<ul style="list-style-type: none"> ▪ Build up Mule and Test Vehicles ▪ Vehicle Testing ▪ Vehicle Test Center Operations ▪ Homologation ▪ Software Testing 	<ul style="list-style-type: none"> ▪ Supplier Sourcing and Readiness ▪ Launch and Series Management ▪ Quality Management ▪ Localization and Relocation ▪ Value Added Assembly 	<ul style="list-style-type: none"> ▪ Service Management ▪ Vehicle Management ▪ Dealer Management ▪ Warranty Management ▪ Software Management
Engineering Consulting Training Operations		



PRODUCT DEVELOPMENT				
BUILD UP MULE AND TEST VEHICLES	VEHICLE TESTING	VEHICLE TEST CENTER OPERATIONS	HOMOLOGATION	SOFTWARE TESTING
<ul style="list-style-type: none"> Vehicle Preparation Test Equipment Installation Assembly and Initial Start up of Prototype Mule Vehicles Camouflage Management 	<ul style="list-style-type: none"> Vehicle Test Drives Hardware Software Analysis Software Management Benchmarking Test Vehicle Fleet Management 	<ul style="list-style-type: none"> Test Center Conception, Implementation and Operations Test Vehicle and Parts Logistics Customs Clearance 	<ul style="list-style-type: none"> Process Management Technical Documentation 	<ul style="list-style-type: none"> Requirements management Test development Testing and analysis Test management Software and tool development

➤ Vehicles, components and functions have to be tested through standardized procedures under diverse conditions, in dusty, hot and cold and high-elevation environments. Formel D is your expert and global partner.

WE TEST FOR YOU. TEST US OUT.

We test, analyze and validate vehicles, components and functions for you.

YOU CAN RELY ON OUR EXPERTISE.

Need help establishing and operating a test center? Leave that to us. Our experience in this field is just as extensive as in the structured analysis and verification of test drive results. We work with you to develop circuit profiles for test drives and defined standards for vehicle, component and function tests.

If you wish, Formel D can also handle the logistics and management of your test fleet. We have developed holistic concepts that we scale to your requirements and implement with proprietary tools.

WE TEST, DOCUMENT AND COMPARE.

Formel D prepares your prototypes and test samples, assigns professional test drivers and evaluates the results in standardized processes. Our development facilities are optimally equipped for this purpose.

We consider absolute discretion as a matter of course. We install the measurement technology, camouflage the vehicles and analyze the results. As part of a benchmarking procedure, we can also compare and test competitor products on your behalf, leaving you to focus on your core processes.

The model still needs to undergo dust and heat tests in the desert? A regulatory authority in Southeast Asia needs special records and documentation? We assist you with the homologation process, as well as with international customs procedures for vehicle trials. And of course, our expertise encompasses all drive types and vehicle segments.

WE LIVE QUALITY. IN PROCESSES, PRODUCTS AND SERVICES.

Our purposeful, in-process quality monitoring system ensures that all components are delivered in the defined quality and quantity and on time.

► **Production quality starts at the bottom.** We support the development of critical new parts and prototype tools all over the world. Including project coordination and controlling, as well as structured documentation.

PROACTIVE NOT REACTIVE.

Our customers can rely on every component and system being in the right place at the right time, in the optimum quality and the correct quantity. We employ preventive quality management, supplier selection and qualification and development strategies to ensure your production runs to plan.

100 PERCENT ZERO-DEFECT.

Thinking ahead, we select the suppliers most able to meet your needs through assessments, feasibility studies and comparison tests. Formel D provides you solutions that anticipate the quality associated with bought-in parts. We have fast-reaction concepts for the post-production inspection and reworking of any components or entire vehicles that fail to meet standards specified.

Formel D analyzes faults and deficiencies, develops guidelines to ensure prevention and establishes an effective early

warning system. To that end, we work on-site with your suppliers all over the world. Our leading Quality Confirmation Center (QCC) concept comprises all structural prerequisites for the integrated quality control of incoming parts and components – including logistics processes. Applying this concept, we take the pressure off your company and achieve efficiency and quality improvements. Our integrated concept guarantees the supply of spare parts to your assembly lines and sets global standards.

MORE THAN JUST SERIES PRODUCTS.

The global trend towards customization affects every vehicle segment. So we offer you an extensive service portfolio for remodeling and retrofitting vehicles following series production. Our specialist teams employ expertise and intuition to realize customized equipment, color concepts, personalization and finishes for show cars, press vehicles and short runs. Our claim: 100 percent quality. This is how we impress on the international stage.



PRODUCTION				
SUPPLIER SOURCING AND READINESS	LAUNCH AND SERIES MANAGEMENT	QUALITY MANAGEMENT	LOCALIZATION AND RELOCATION	VALUE ADDED ASSEMBLY
<ul style="list-style-type: none"> Supplier Selection and Evaluation Supplier Qualification Auditing Quality Planning Production Part Approval Process (PPAP PPF) Maturity Validation Troubleshooting 	<ul style="list-style-type: none"> Vehicle Rework Vehicle Retrofit 	<ul style="list-style-type: none"> Resident Engineering Quality Confirmation Center (QCC) Quality Warehousing Control and Rework Troubleshooting Interim Shop Floor Management Quality Engineering Quality Training 	<ul style="list-style-type: none"> Communication with Authorities Production Planning Logistics Planning Warehousing Start up Ramp up Production Shop Floor Management and Operations 	<ul style="list-style-type: none"> Refining Manufacturing Center (RMC) Outsourced Manufacturing



AFTERSALES

SERVICE MANAGEMENT	VEHICLE MANAGEMENT	DEALER MANAGEMENT	WARRANTY MANAGEMENT	SOFTWARE MANAGEMENT
<ul style="list-style-type: none"> ▪ Serviceability ▪ Technical Documentation ▪ Labor Times Determination ▪ Software Verification ▪ Type Insurance Classification Cost of Ownership ▪ Packaging Management ▪ Field Analysis ▪ Technical Support ▪ Technical and Service Training 	<ul style="list-style-type: none"> ▪ Vehicle Refurbishment ▪ Vehicle Retrofit ▪ Pre-Delivery Inspection ▪ Show Car Preparation ▪ Fleet Management 	<ul style="list-style-type: none"> ▪ Dealer Performance Optimization ▪ Workshop and Equipment Conception ▪ Process Auditing 	<ul style="list-style-type: none"> ▪ Warranty and Field Data Analysis ▪ Warranty Audits ▪ Parts Analysis ▪ Parts Logistics 	<ul style="list-style-type: none"> ▪ Software testing and validation ▪ Requirements management test management ▪ Test bench operation and setup ▪ Test environment management IT infrastructure ▪ Tool development software development ▪ Error and test analysis ▪ Test automation ▪ Custom consultation and support services

➤ **Top quality service for a powerful image.** Formel D analyzes existing structures, defines optimization potentials and implements new processes that make your services more efficient and thrill your customers.

WE SAFEGUARD YOUR SERVICE. EVEN AFTER THE SALE.

Quality management and process optimization in aftersales mean you can experience the quality of your vehicles over the long term.

WE ENSURE SATISFACTION.

Lasting customer loyalty is a key factor for a consolidated market position and the economic stability of your company that this creates. Every inspection and service activity is an encounter with your brand and should therefore take the most positive form possible.

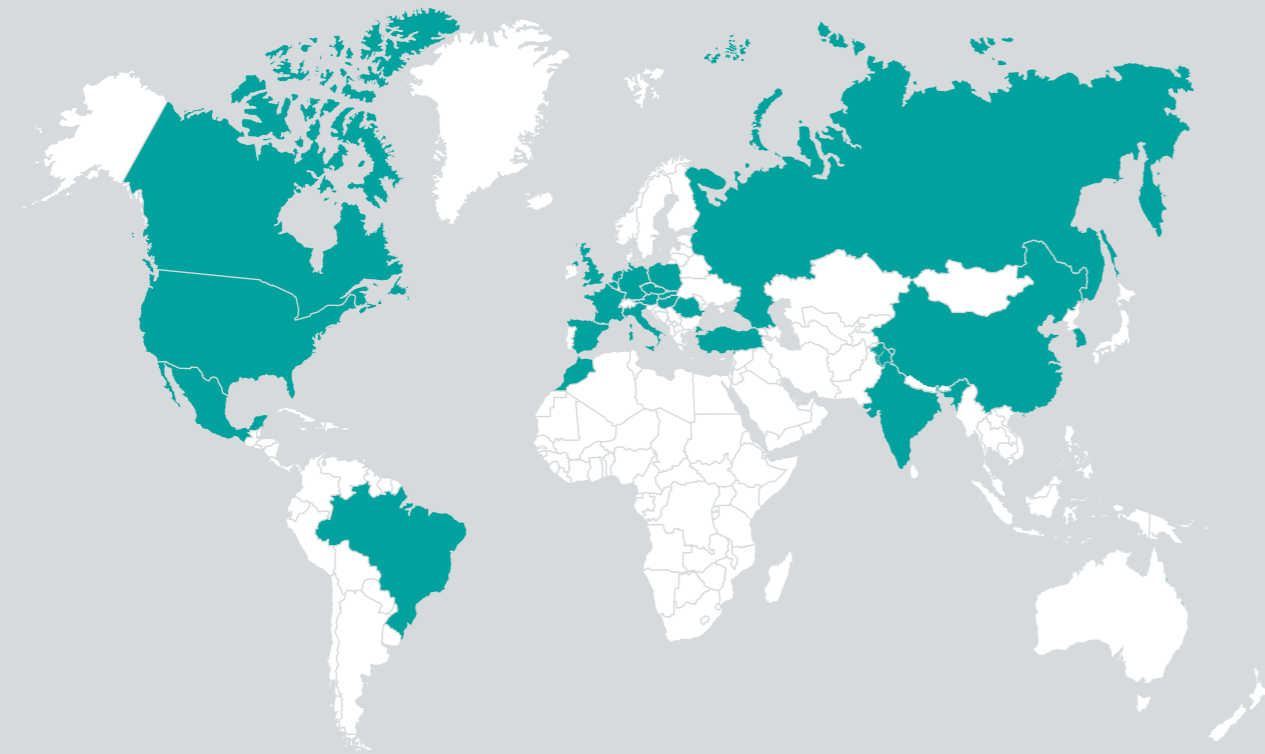
The quality of a vehicle is obvious as soon as it is delivered to the customer. We ensure that quality with extensive vehicle preparation and pre-delivery inspection. Yet technical expertise remains a key factor throughout the vehicle life-cycle. To ensure expert service and professional repairs, we support dealers and workshops with both standard and bespoke training. We also provide optimal solutions in the form of technical documentation, such as owners' manuals and repair instructions for workshops.

We analyze the maintainability of new vehicle models and define type damage categories and workshop input. As an experienced partner, we assume responsibility of the technical support hotline, audit processes and employ dealer optimization programs to improve profitability and

customer satisfaction. We see complete workshop solutions, from the layout through to equipment planning, as a matter of routine.

CROSS-BORDER SERVICES.

Vehicles that are exported abroad often have to be retrofitted or remodeled according to national standards. Formel D has practical knowledge of the industry, and can make market-specific modifications on-site thanks to a tightly knit network of locations. We run quality-assuring validations, make preparations and carry out pre-delivery inspections. We develop, monitor and continuously update standardized processes and provide training for their implementation.



FORMEL D. GLOBAL PARTNER FOR VEHICLE, PARTS AND SERVICE READINESS.

➤ Formel D is your global partner. We are wherever you need our support and expertise.



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
VDA 6.2
www.tuv.com
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de.alamy.com
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FORMEL D
HEADQUARTERS | SCHANZENSTRASSE 6-20 | GEBÄUDE 2.08 | 51063 KÖLN | GERMANY
PHONE +49 221 67006-0
INFO@FORMELD.COM | WWW.FORMELD.COM

