

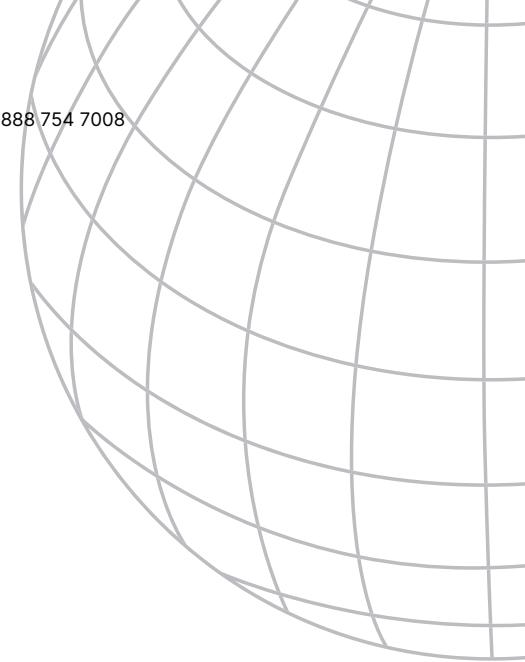
# productive testing



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# And yet it moves

**The principle of productivity in measurement technology and development**

**“Measure what can be measured, and make measurable what cannot be measured.”** Galileo Galilei

With this principle, Galileo Galilei revolutionized the order of the “old world”. The desire to get to the heart of the matter, to call things into question, to test and to measure, ultimately in order to optimize, remains to this day the starting point for all innovation.

**imc customers** are among the leading innovators in their respective fields. What unites our customers is the desire to develop products that are truly milestones in industry. We consider it a privilege to support the innovation process of our customers with technological excellence in the area of measurement technology.

**Productive testing** means for us that our customers reach their goals faster and more efficiently. By making sure our product development is in line with our customers' requirements, we are able to develop measurement products and systems that will suit both their current and future needs, as well as offer functions that save time – thus, simplifying the task of everyday measurement.

**Productivity** is essential for the success of our customers – hence, our driving force. This becomes all the more apparent from the milestones we have already achieved in the history of our company. But we're not content to simply rest on our achievements. Rather, we constantly reinvent ourselves through our new solutions.

**Find out more** about imc and our measurement solutions and customer services.



Galileo Galilei,  
physicist, mathematician,  
astronomer, discoverer of the  
heliocentric world view

## imc - Facts

- Founded in 1988
- Based in Berlin, Friedrichsdorf and Stuttgart, Germany
- Production in Berlin, Germany
- Approximately 200 employees
- Cooperation with 25 partner companies in 28 countries
- Over 100 patents

# Milestones

Developing productive solutions

## 1988

**Founding of imc**  
Grounded in the principles of solving measurement tasks, offering sound advice, and maintaining close ties with our customers - these are the cornerstones of imc.

## 1989

**imc FAMOS**  
The first signal analysis software worldwide developed to run on MS Windows.  
"Do you have measurement data and need answers as fast as possible?" Regardless of where your measurement data originates, imc FAMOS signal analysis software has been advancing efficiency in the evaluation of measurement data since 1989. Since that time, imc FAMOS has been uniting and refining all the tools you need for the professional visualization and analysis of data.

## 1993

**Efficient electric motor test stands using the Parameter Identification (PI) method**  
Is it really possible to test 20,000 motors in 24 hours on a test stand - with the highest precision and be able to extract physical parameters from the measurement data that optimally characterize the test specimen? Yes. Since 1993 imc Parameter Identification test stands have brought high efficiency to the testing of electric motors. It's why today imc is one of the leading suppliers of development and end-of-line test stands for electric motors.

## 1996

**imc  $\mu$ -MUSYCS**  
integrates CAN into measurement technology  
In 1996, an imc measurement device captures CAN-bus data and analog measurement signals synchronously from a vehicle, achieving a world first. The era of field busses in measurement devices has dawned. Today, imc products support all common vehicle busses and protocols.

## 1998

**imc Online FAMOS** - because faster is better  
Perform data analysis while the current measurement is taking place? Why not? Integrated into a data acquisition system, imc Online FAMOS real-time data processing provides immediate results to monitor live measurements. Onboard pre-processing yields data reduction, eases later offline post-processing efforts and even allows deterministic closed loop control.

## 2002

**Acquiring about 50,000 channels of measurement data by a Stuttgart automobile manufacturer**  
imc reinvents CAN-based measurement technology for the new millennium.  
imc CANSAS revolutionizes both vehicle testing and test stand technology equally.  
Convinced of the concept of flexible "Made in Berlin" measurement technology, this Stuttgart-based company relies on imc CANSAS when it comes to productive testing.



## 2004

### Founding of imcAccess Ltd., China

Bringing services close to the customer is not only crucial in Germany. imc is represented by partners in over 25 countries – including China. Around 25 employees based in Beijing and Shanghai are serving local customers with commercial and technical support.

## 2006

### Data acquisition, measurement and control within a single system

Increase efficiency and reduce integration costs. imc brings to the market the first integrated test system that merges measurement and real-time closed loop control with over 100 channels.

## 2009

### Electro-mobility moves into the spotlight

Do you know where Germany's largest test bed for electric vehicle powertrains is located? Working in close cooperation with the Fraunhofer Institute in Bremen, imc developed and realized a complete powertrain test bed in a climate chamber. The combination of Hardware-in-the-Loop/simulation and the real-time control of all components makes this Germany's most flexible and effective facility for electro-mobility test and research.

## 2010

### imc STUDIO software platform – clear and comprehensive

It's well-known across industry that software is one of the most significant factors in achieving working efficiency. Based on this premise, imc has developed a modular structured and comprehensive software platform to cover the entire process of test, measurement and control, including automated test design – imc STUDIO.

## 2011

### Providing solutions faster – large-scale projects for railway testing

Testing in the railway sector faces its own special challenges – distributed measurement over several thousand channels, control bus networks specific to rolling stock, such as MVB, and the need for particularly robust measurement hardware. imc measurement systems have been providing customers with solutions tailored to the railway industry for over 15 years. In 2011 imc was awarded a large-scale contract to provide a system for high speed train testing in China.

## 2014

### Proving airworthiness

imc can deliver a complete solution for testing aircraft that will provide the capability to synchronously acquire several thousand measurement channels, aircraft busses, video data and cockpit displays. The data can be evaluated online and sent to a ground station via telemetry.

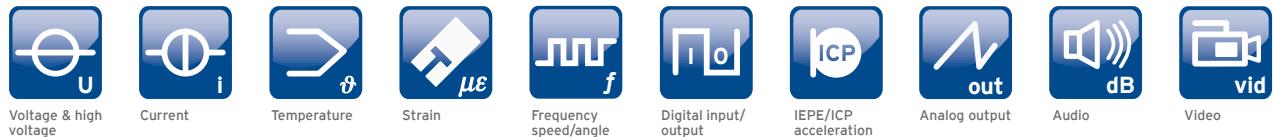
# Single-source solutions

## From signal capture to test report

Visit our website at  
[imc-berlin.com/products](http://imc-berlin.com/products) for  
an overview of all products and  
service solutions

When it comes to achieving solutions for your measurement tasks, imc offers products and services which are integrated right across the value chain. With a combination of specialized measurement expertise, a holistic approach to projects and a deep understanding of industry-specific challenges, we are proud of being a strong partner for our customers.





Voltage & high voltage

Current

Temperature

Strain

Frequency speed/angle

Digital input/output

IEPE/ICP acceleration

Analog output

Audio

Video

## imc hardware

The right equipment for every need

Modular, expandable systems for centralized & distributed applications

Compact, rugged & mobile systems

Integrated open & closed loop control and simulations

Custom solutions & test stands

## imc software

Intuitive and versatile

Data acquisition, device configuration & visualization  
imc STUDIO

Automatic data transfer & remote access  
imc LINK/  
imc WEBDEVICES

Evaluate, analyze, visualize & report  
imc FAMOS

Application specific software

## From standard components to custom solutions

Proven and efficient measurement solutions for a wide range of industry sectors

Test stands

Customer-specific solutions

Measurement engineering concepts

Customer service



## Our fields of expertise



### Automobile industry

Reaching solutions faster

In test drives or on the test stand – imc aims to find the most adequate measurement solutions quickly and effectively for our customers in the automotive and vehicle industry.



Robust systems from imc operate reliably during test drives, even in extremely harsh environments. Having black-box functionality, PC-independence, suitability for an extended temperature range, and shock/vibration resistance – our systems are fully integrated and stand ready for road trials. Furthermore, our systems are able to precisely capture a wide range of signals received from virtually any type of sensor, have a tolerant power supply, come with convenient, simple connections and can synchronously capture field bus data, such as CAN, LIN or FlexRay. The modular construction of systems, such as the imc CRONOSflex, preserves the highest signal quality because distributed modules can be placed close to the sensor.



Test stand technology from imc is easily integrated, flexible and includes open and closed loop control capabilities, as well as the option of having built-in real-time simulation models for Hardware-in-the-Loop (HIL).

#### Mobile applications

- Endurance testing
- Climate testing
- Fatigue analysis
- Cold-start behavior
- Model verification in vehicle trials
- Brake tests
- Crash tests
- Road performance
- Vehicle dynamics
- Engine and powertrain testing
- Performance tests

#### Test stands

- Component test stands
- Test stands for engines & powertrains
- Hardware-in-the-Loop (HIL) test beds (simulation)
- Facilities for noise tests
- Climate and wind-tunnel testing
- End-of-line test stands for AC/DC motors

#### ISO & standard tests

- Acceleration tests
- Fuel consumption measurements
- Noise & vibration
- Passenger safety
- Brake tests

## Railway industry

### Safe and quick measurement results

Measurement technology in the railway sector faces its own special challenges: decentralized, distributed and synchronous data acquisition over thousands of channels – both inside and outside the rail vehicle – as well as direct reading of industry-specific bus systems, such as the Multifunction Vehicle Bus (MVB).

Engineers in the railway sector demand robust and durable measurement hardware systems which, supported by intelligent interaction with software solutions, deliver real-time results and allow the user to easily create reports and analyses.

For more than 15 years, imc Meßsysteme GmbH has been creating tailored products and solutions that meet these high demands throughout the whole life cycle of rolling stock – from the development phase of a rail vehicle through prototype testing, performance acceptance tests, investigations for improvements and routine monitoring during operation, to tests performed on the tracks and other infrastructure.



#### Expertise in mobile applications

- Passenger comfort
- Investigation of vehicle behavior (e.g., wheel flange strength)
- Commissioning tests
- Crash tests
- Climate tests
- Brake tests
- Testing at high speeds
- Derailment testing

#### Expertise in stationary applications

- Structural testing of components (e.g., wheels, bogies, railroad car bodies)
- Structural analysis of the complete train
- Structural tests on railway tracks
- Structural analysis of inter-carriage bridges
- Air-pressure measurement in tunnels
- Testing noise barriers
- Pantograph tests (on test stands and mobile)



## Energy and power quality analysis

Over land, at sea and in the air

For many years now, imc has been working together with leading companies in the energy sector to offer efficient, turnkey measurement and monitoring solutions for wind turbines, power plants, and energy distribution networks. From the development stage to load tests on existing facilities – imc provides precisely tailored measurement solutions based on more than 15 years of experience with prototypes, components, structures and power quality tests.

The rugged imc measurement systems are PC-independent and work reliably where normal electronics would fail. All of the components for signal conditioning, AD conversion and real-time processing and storage of data are integrated into one system. This allows for delivery of completely autarkic test and monitoring solutions: operating autonomously in inaccessible locations and providing remote access with communication via wireless networks and telecommunication infrastructure.

When it comes to evaluating the measured data according to respective standards, norms and regulations of the specific fields, imc provides a broad spectrum of dedicated analysis and processing tools to directly output appropriate results in terms of power curves, performance and power quality parameters.

### Productive solutions for the wind energy industry

- Applications in development and certification testing of prototypes and components
- Load and electromechanical efficiency measurements
- Condition monitoring
- Sound and noise measurements
- Power quality requirements for grid connection of wind turbines

### Power measurement, monitoring and power quality analysis

- Power monitoring and quality analysis as per EN 50160, IEC 61400-21
- Platform for the measurement of all physically defined variables on the power network (e.g., frequency, voltage spikes, voltage fluctuations, harmonics, flicker, signal frequencies)
- Measurement and analysis of all output power and performance parameters
- Smart-grid simulation

## Aviation and aerospace

### Ready for take-off

In the aviation and aerospace industry, safety requirements are particularly high. Each aircraft, helicopter or space capsule must be subjected to comprehensive testing long before it leaves the ground for the first time. Therefore, it is all the more crucial that the measurement technology used for aerospace testing meets the highest standards of quality and reliability.

Measurement systems developed by imc have been accredited for use in the aerospace industry and have proven to be a valued asset among important aircraft manufacturers. They meet the industry requirements by being both robust and compact, and can operate autonomously and independent of a PC. Besides acquiring data from a wide variety of sensors, a key feature of our products is the capturing and recording of GPS data and bus information synchronously (e.g., ARINC-429 and CAN-bus).

Our knowledge in providing solutions for in-flight testing is well complemented by our experience in on-the-ground testing and test stands. Whether for testing airframes, wings, rotor blades, engines or propulsion units – a wide variety of signals can be captured synchronously, displayed, analyzed in real-time and safely stored. As aerospace engineers know, there's nothing unusual about having one thousand channels. imc measurement technology offers intelligent storage management, and our solutions can be easily integrated into test automation environments, where they extend far beyond data acquisition, covering real-time test stand management and closed loop control.



#### Expertise in flight testing

- Mobile data acquisition in prototype testing
- Acquisition of basic parameters in flight tests

#### Expertise in stationary applications

- Development testing of cargo loading systems
- Development test bed for high-lift systems
- Structural analysis of components (e.g., airframes, wings, rotor blades, motors or propulsion units)
- Structural analysis of aircrafts and helicopters



## Civil engineering

### A solid foundation for civil construction and bridge monitoring

Measurement systems play a crucial role in ensuring maximum safety of bridges and other structures through inspection and monitoring over extended periods of time. Oscillations and vibrations caused by environmental impact, traffic, or structural design, for example, can lead to cracks and breaks in concrete and steel structures. imc measurement technology and analysis tools can help to systematically monitor such constructions and provide well-founded information on structural health. These efforts can assist tremendously, not only in early recognition of fatal failures, but also in carrying out maintenance work safely and more efficiently.

#### Bridge monitoring

- Oscillation measurement – immediate and long-term monitoring
- Acquisition close to the sensor with decentralized modular technology – achieve higher signal quality
- Remote monitoring and automatic data transfer using imc LINK
- Comprehensive analysis and visualization of the captured data with imc FAMOS

#### Solutions for civil construction

- Oscillation measurement (immediate and long-term)
- Thermal measurement: assessing room-climate conditions
- Sound and noise measurement
- Measurement technologies for examining energy use in buildings
- Acquisition close to the sensor with decentralized modular technology – achieve higher signal quality
- Remote monitoring and automatic data transfer using imc LINK
- Comprehensive analysis and visualization of the captured data with imc FAMOS

## Mechanical engineering

### Rugged measurement solutions

Whether it's an excavator, agricultural machinery, a heavy-duty crane, printing machinery, a forklift or hand-operated electrical machinery – all must undergo extensive testing before the start of production. For years we have provided turnkey measurement solutions to leading equipment manufacturers. Particularly robust solutions are needed to withstand shock and vibration, as well as extreme cold or heat.

Frequently, the systems are installed directly on the machinery and must synchronously capture and store different signals, such as strain, force, displacement, mechanical and electrical power, RPM, and data from the machinery's control system (e.g., CAN). The ability to transfer this measurement data via modern communication channels, and to automatically monitor, is augmented by an equally important, yet simple, graphical user interface.



#### Expertise in mobile applications

- Load and performance tests on large cranes and lifting equipment
- Tests of construction equipment (excavators, wheel loaders, rollers, dumpers)
- Long-term monitoring on agricultural machinery, such as harvesters or tractors
- Vibration and oscillation measurements in accordance with EU standards on hand-operated power tools (e.g., drills and angle grinders)
- Measurements of flexural bending and torsional vibrations in aircraft engines undergoing operational approval

#### Expertise in stationary applications

- Commissioning and start-up tests of gas turbines
- Torque monitoring for generators
- Testing of mechanical seals for pumps, mixers and all types of machinery, in which rotating shafts must be sealed
- Test stand solutions – e.g., clutch disc test rigs
- Condition monitoring and predictive maintenance

# Products for the complete test and measurement cycle

Your benefit - our goal

## imc hardware



### Save time

Real-time calculation within the measurement system



### Mobile & rugged

Operates independently from a PC - suited for harsh environments



### Networking capabilities

Network connectivity and synchronization of all devices



### Flexible & expandable

Modular system architecture - centralized and distributable



### Unified operating software

For all measurement systems - collaborating devices



### Single-source solutions

Throughout and beyond the whole test & measurement process

## imc software



### Workflow automation

Simplifies daily routine tasks



### Custom visualization

Graphical User Interface and data visualization



### Easily integrated

Open interfaces - modern .net technology



### Multiple device management

Manage multiple devices at one time



### Professional reports

Quick and easy to create



### Training & support

Seminars and hotline support



“When collecting data from a train, there are many measuring points stretched throughout. With imc CRONOSf/ex, individual modules can be placed close to these measuring points. Having the measurement module close to the sensor significantly increases signal quality.”



“The spectrum of imc measurement capabilities ranges from simple data recording via integrated real-time calculations, to the integration of models and completely automated test stands.”



“Whether on the test track, on the test stand or in the laboratory – integrated measurement, control and simulation ensures efficiency. Test and measurement systems from imc are sustainable, flexible and can be expanded to grow with the needs of the customer.”



“imc STUDIO is very convincing, with its intuitive approach to system configuration, comfortable handling even of very large numbers of channels and the user-configurable display of live data. With direct data evaluation supported by cursors and markers, post-processing is quite simple.”



# imc hardware

## What characterizes all imc systems:

- Universal, precision signal conditioning for all common sensors
- Automatic sensor recognition (TEDS)
- Real-time calculation within the system
- PC-independent operation
- Data storage in the system and/or PC
- Networkable
- Uniform operation software for all systems
- Modular architecture, flexible expansion
- Synchronous acquisition of analog, digital and field busses, such as CAN, LIN, FlexRay, ARINC, MVB, XCPOE
- Wireless access via WLAN, UMTS, modem

### Modular, distributable test & measurement system

imc CRONOSflex

- Flexible modularity through frameless expansion
- Ideal for frequently changing test, measurement and control tasks
- Aggregate sampling rate of 2 MHz
- Practically unlimited channel count



### Adaptable measurement & control system for mixed signal testing

imc CRONOScompact

- Measure, control and simulate with a single system
- For test stand, laboratory or mobile applications
- Largest selection of amplifiers and modules
- Integration of MATLAB/Simulink models for HiL
- Ideal for medium to high channel counts



### Economical system for multi-channel measurement tasks

imc SPARTAN

- 16-128 channels in one system
- Sampling rates up to 500 S/s
- Supports measurement of voltage, current, temperature and strain gauges



### Field bus acquisition - from stationary to mobile - from logging to analyzing

imc BUSDAQ

- Supports all common field busses, such as CAN, LIN, FlexRay, J1939, ARINC...
- Commands a variety of protocols, such as CCP, XCP, DiagOnCAN...
- Autonomous and self-start capable (wake-up on CAN)
- Low power consumption
- Extended temperature range from -40° to +85°C
- Condensation allowed





## Measurement system for extreme environmental conditions

imc CRONOS-SL

- Extremely rugged
- Shock resistant: MIL STD810F
- Protection rating: IP65
- Extended temperature range from -40° to +85°C
- Condensation allowed



## All-in-one data acquisition & control

imc C-SERIES

- Ideal for varying test stand set-ups and mobile applications
- Affordable solution for measuring tasks with 8 to 24 channels



## Intelligent digitizing amplifiers, output and control modules for CAN based test & measurement

imc CANSAS

- Distributed and centralized installation
- Patented synchronous acquisition (CAN based)
- Suitable for extreme environments
- Five different designs for every type of application



# imc software

## imc STUDIO

A modular software platform providing all tools required for the whole test and measurement process.

### Configuration & acquisition

#### imc STUDIO Setup

- Measurement device selection and administration
- Clear configuration settings for all hardware
- Intelligent trigger machine and flexible real-time calculating

### Operation & displays

#### imc STUDIO Panel

- Freely configurable control and display screens
- Pre-defined templates
- Operation per drag & drop
- Versatile curve windows (2D/3D) and video display

### Remote monitoring

#### imc LINK/ imc WEBDEVICES

- Remote connectivity for imc measurement systems
- Automatic data transfer to PC or server
- GPS data on a map background
- Automated post-processing
- Turnkey solutions including IT and telecommunications

### Integration of 3rd party systems

- Integration of DLLs
- imc STUDIO DataProcessing
- Scripting engine (.Net)
- Integrated “workbench”

### Test sequences

#### imc STUDIO Sequencer

- Automation of test sequences
- Configuration per drag & drop
- Variety of options: from setting start parameters to automated analysis and reports

### Analyzing & documenting

#### imc FAMOS

- Powerful data analysis and documentation
- Extensive selection of ready-to-use evaluation functions
- Create multi-layer macros
- Create GUIs
- Command large amounts of data



## Video integration

### imc STUDIO Video

- Time-synchronized video & data acquisition
- Pre-trigger function
- Up to 4 simultaneous video cameras
- Separate recording & monitoring channels for each camera

## Sensor management

### imc SENSORS

- Management of any sensor
- Measurement channel configuration with drag & drop from sensor database
- TEDS sensor recognition

## Data bases

### imc SEARCH 2.0

- SQL interface for automated integration of SQL databases
- Dedicated data base for complete administration of measurement and project data

## Automation

### imc STUDIO Automation

- Graphical development environment for test stand automation
- imc hardware provides deterministic timing and real-time response
- State oriented definition of process steps by drag & drop or notation
- Multiple parallel and synchronous tasks



# Our test stand expertise



## Test stand components

### Modular hardware for test stand tasks

Choose from a wide range of test and measurement systems from static to highly dynamic, or from a simple amplifier to a synchronous real-time system comprising both data acquisition and open and closed loop control.

Thanks to cascadable systems and distributed computing power, there are no limits when considering the number of channels or how much performance you need from your imc hardware. A flexible system architecture also offers the choice to arrange systems in centralized or distributed set-ups.

In addition to the standard analog signals and sensors on a test bench, imc hardware can also collect synchronous data from a variety of other sources, such as field busses, digital signals and sensors, video and audio.

An integrated power output stage allows direct drive of actuators. And for real-time simulation tasks, imc hardware can offer integrated solutions:

- Model calculation by integrated signal processors (imc Online FAMOS)
- Integration of MATLAB/Simulink models for HiL applications



## Modular software platform for test stand tasks

The modular software platform, imc STUDIO, offers you all the tools you need for your test stand automation: set-up of measurement hardware, creation of custom operation and display panels, configuration of PID controllers, set-up of control features, analyzing data, project and metadata management, connection to databases and integration using open software interfaces.

## Integration with existing systems

With an open hardware and software system architecture, we are able to offer many options for quick and easy integration of our products directly into your existing systems.

- CAN
- EtherCAT
- EtherNet
- CANopen
- \*.dbc, \*.a2l
- CoE (CANopen over EtherCAT)
- COMs
- .NET

## System integration for test & measurement

With 25 years of experience in designing and implementing test stand applications, we can offer you anything you need to complete your testing task - from consulting to on-site service and all steps in between.

- Advising / consulting
- Requirement and performance specifications
- Evaluate test stand concepts and designs
- Modernization (technological upgrade, control)
- Programming services & system integration
- Coaching / training
- On-site service (maintenance, calibration, etc.)



## Turnkey installations

Our test stands for research, development and production:

- Component test stands for testing electro-mechanical components, machines and tools
- Transmission test stands
- Electric motor test stands
- Hybrid test stands
- Test stands for electrical components, such as batteries



## Unique expertise in electric motor testing

imc offers the full range of electric motor testing from a single source: consulting, design and implementation of turnkey test stands for special applications, development of test strategies and applications, and customer-specific training.

In addition to conventional motor tests involving the device under test, load machine and torque measurement; model-based testing by the Parameter Identification (PI) method has become established in cases where motors are already installed in machinery or otherwise difficult to access.

Using the PI method, the tested motor's load is made up of its own inherent inertia. Applying intelligent dynamic drive patterns can induce suitable operating situations to precisely assess the test sample's properties. This allows for very fast and efficient tests avoiding any mechanical coupling. In both testing arenas, optional vibro-acoustic testing is also available. The large number of test stands imc has realized underscores the extensive experience we've accumulated in both testing fields.

# Customer services

## Our commitment to your success

"Our uniqueness comes from the fact that we use and apply the products that we manufacture and sell. This makes us our strongest and most critical customer."

*Dipl.-Ing. Peter Scholz,  
Managing Director,  
imc Test & Measurement GmbH*

Precise and trusted measurement results are a prerequisite for your success. Our team of proven experts is here to offer professional support to help you solve your measurement challenges.

### What sets us apart:

As developers and manufacturers, we know our products down to the last technical detail. At the same time, we can look at the features of our products from an application perspective – just as you do. This unique combination gives us the foundation to provide you with the most technological and economical, tailor-made service available. We hold the belief that competence and reliability, as well as economic awareness, are decisive criteria when it comes to qualified, customer-oriented service.

### What we can offer:

- Intelligent measurement hardware and software tools
- A team of experienced and field-proven experts in test and measurement technology that can offer economical solutions – either partial or complete turnkey
- Cooperative partnerships with close communication to systematically transfer know-how to you

"Sometimes we have to compromise. Not everything that is feasible is also economical – finding the right balance of functionality and operational reliability is crucial."

*Dipl.-Ing. Detlef Böhne, Team Leader,  
Application Development*

## The right tool for the job

Test stand development – customer and application-specific software

- Test stand software with control and real-time concepts
- Individual software solutions
- Adapted control and visualization screens
- Customer-specific evaluation routines
- Integration of databases and web interfaces
- Data import and export from 3rd party formats
- Web applications and smartphone apps for measuring and monitoring tasks



## Putting product and application knowledge to use

Test and measurement support

- Solid technical support for application and hardware issues
- Effective utilization of complex product features
- Remote maintenance
- On-site operations and commissioning
- Methodology, concepts and systems engineering
- Data conversion and analysis algorithms
- Automation of operation, analysis, documentation and data management
- Automation and control technology

## Increase productivity

imc ACADEMY

- Product and application training
- Seminars and workshops
- Beginner's training
- Training for software developers
- Train-the-trainer programs

"Without practical relevance, the knowledge of a function is insignificant and quickly forgotten. It is easiest to learn by doing - then you will own it. We call this a workshop."  
*Dr. Holger Knopp, Team Leader,  
imc ACADEMY*

## Solution expertise rental

Equipment rental and personnel contracting

- Deployment of modular measurement systems
- Free advice about configuration and connections
- Assisting support or contracted measurement through our specialists
- Signal analysis and test reports
- Or get the complete solution: contracted measurement with sensors, measurement devices incl. professional evaluation and documentation

"During on-site operations, one develops a great appreciation for the high flexibility and rapid adaptability of imc measurement systems. And if you aren't sure what to do next, the hotline will help quickly and efficiently."  
*Dipl.-Ing. Markus Steinwachs,  
Measurement Engineering Expert*

## Sustain and protect your investment

Calibration, adjustment, modification, repair, update

- System care and maintenance concepts
- Calibration and adjustments
- System inspections and repairs
- System updates
- Express and on-site service

"Regular system maintenance is quality assurance and largely prevents unplanned outages. This increases the availability of your system and extends the life to over 20 years!"  
*Dipl.-Ing. Michael Scheibner-Aden,  
Service and Quality Control Manager,  
imc Meßsysteme GmbH*





"As one of the few suppliers in the market, we cover the entire process surrounding measurement, control and simulation. For most of our customers, we are much more than a supplier of excellent products - they appreciate that we are also experienced consultants and pragmatic problem solvers."

*Michael Kurth, Production, imc Berlin*



"Nowhere will you find better product knowledge, reliability and sound judgment than from our customer service on our hotline."

*Heiko Schmidt, Hotline Manager,  
imc Frankfurt*



"When it comes to productive testing and measurement solutions, imc is a valued partner worldwide. Why? Well, probably because we try to think ahead to the next technically important step - to provide our customers the best possible support for demanding tasks."

*Dr. Dietmar Sprenger,  
Managing Director, imc Berlin*



"My area of responsibility is in pre-production and order processing - I appreciate the "interface aspect" of my job. I find it nice to be able to make a contribution to ensure that our customers' orders are sent on their way quickly and carefully."

*Silke Bettin, Production Administration, imc Berlin*



"With our new service center in Stuttgart, we want to offer our customers in this region shorter turnaround times with calibration, adjustment and maintenance services."

*Raed Faraj, Service Center,  
imc Stuttgart*



"For me, sales means more than just 'selling' - technical advice and problem solving are very important to us. Having a direct connection to our customers and, thus, to their tasks and challenges, is especially important to me."

*Kai Gilbert, Head of Sales,  
imc Frankfurt*

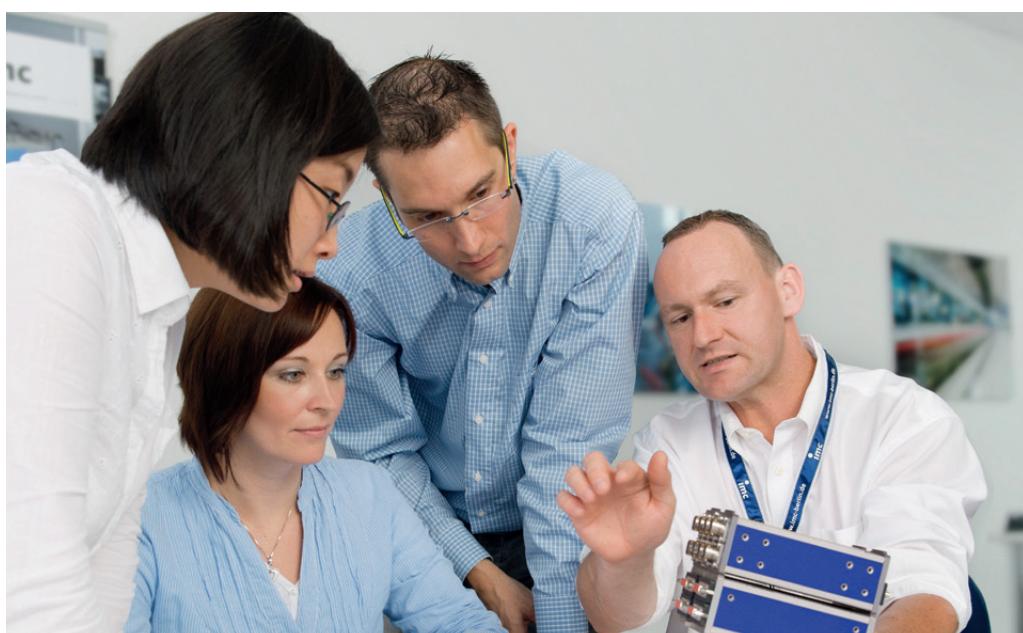
# Because people make a difference

## About us

Whether the task is a prototype train test, a component test stand tailored to a customer's special need or fleet testing in the automotive industry - the more complex the measurement task, the more important it is to have a competent team.

Our employees are our most important capital - customers can always count on our experience and know-how. We at imc believe that our strength is based upon the knowledge, experience and commitment of those who work for the company. Around 200 people are employed at our sites in Berlin, Friedrichdorf and Stuttgart. In Berlin, you will find the heart of imc - our development division. We work hard to create innovative measurement solutions in order to improve efficiency and productivity in the daily working lives of our customers.

Our focus on quality is also demonstrated by our commitment to manufacturing in Germany. The development and manufacturing of our products and software solutions takes place in accordance with the highest standards of quality assurance. No product or solution leaves the site without first undergoing rigorous quality testing. This means having competent and well-qualified employees. Attracting and recruiting new people, supporting their career development and keeping them here is, therefore, one of our highest priorities.



# From Berlin to Beijing

## Locations worldwide - the partnerships of imc

Success is often a question of presence. Partnerships flourish from personal relationships. Whether we're talking about Berlin, Beijing, Detroit or Delhi - it is important to us to be close to our customers. We are dedicated to understanding their applications and finding solutions to their measurement challenges. All partners of imc are closely tied to our headquarters in Berlin, thus, bringing the wishes of our customers throughout the world directly to our product developers in Germany.

### International - a strong team

25 partnerships in 28 countries



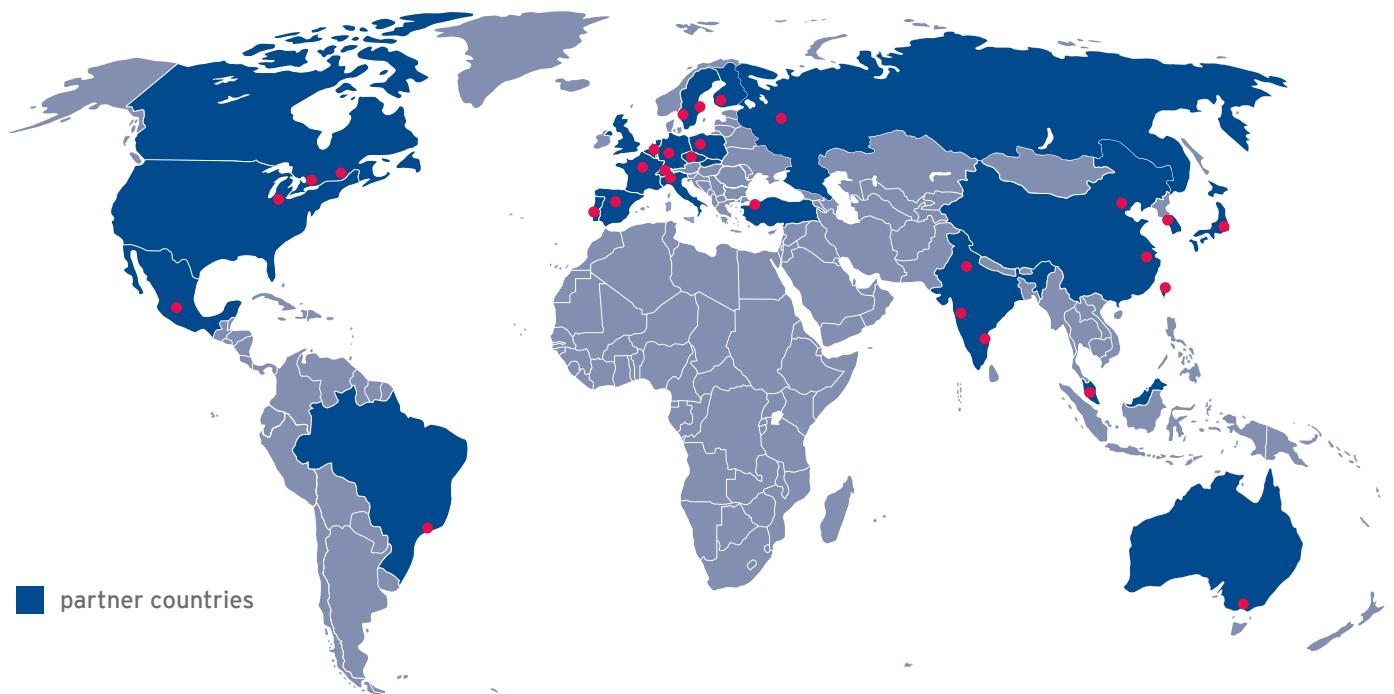
Absolute  
Gauge  
Technologies™

Presented by: Absolute Gauge Technologies

[sales@absolutegauge.com](mailto:sales@absolutegauge.com); [www.absolutegauge.com](http://www.absolutegauge.com),

Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008





Presented by: Absolute Gauge Technologies  
[sales@absolutegauge.com](mailto:sales@absolutegauge.com); [www.absolutegauge.com](http://www.absolutegauge.com),  
Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008



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[sales@absolutegauge.com](mailto:sales@absolutegauge.com); [www.absolutegauge.com](http://www.absolutegauge.com),  
Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008

#### **imc Meßsysteme GmbH**

Voltastraße 5  
13355 Berlin  
Germany

#### **imc Test & Measurement GmbH**

Max-Planck-Str. 22b  
61381 Friedrichsdorf  
Germany