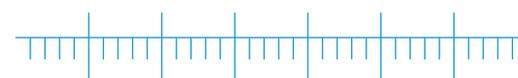
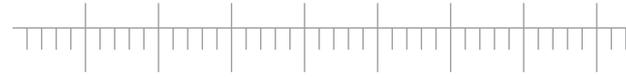


Solutions from Experts

Test Bench Technology and Test Data Management





Collaboration

An expert is someone who has especially extensive knowledge about a subject and has mastered special skills in this area. This knowledge is not of a purely theoretical nature, however. Being an expert – a concept derived from the Latin expertus for ‘tested, experienced’ – also means that this knowledge has proven itself in practice.

Renowned customers from a broad range of industries rely on us as measurement system experts in measurement data acquisition, testing technology and data analysis. The requirements and realization details may differ, but our standard of quality is always the same. We create solutions that move our customers forward.

In research and development, as in industrial applications, it is necessary to make reliable technical and strategic decisions in order to set out on the correct path. These decisions must be based on informative and quickly obtained information about materials, components and processes. We are your partner in this.

Over 40 highly qualified engineers and scientists from the fields of electrical engineering, mechanical engineering, mathematics and more work at the three company locations or on-site with customers. We place great importance on open collaboration based on trust, with you as well as any other project partners. This ensures that all technical and customer-specific project requirements will be directly integrated into the search for solutions.



Our solution:

**Obtain reliable measurement values.
Use test data efficiently.**

Helping you make correct decisions

Our customers are all experts in their individual areas. We support them with mature measurement and analysis technology. Expert solutions for experts – only fitting.





on New Ideas

From pure consulting on solutions for special sub-tasks all the way to complete integrated systems with all necessary hardware and software components – no matter what the job, you profit from our management competence and the broad implementation experience of our employees. The resulting solutions not only support short-term success but already take future developments into account.



„This is what we measX engineers are proud of. Decision-makers, technical planners and users in the automotive industry, in chemicals, pharmaceuticals, mechanical engineering and electrical engineering have trusted in our know-how for over 30 years.“

Dr. Joachim Hilsmann, Managing Director





Innovation

The name measX stands for excellent testing and analysis systems that bundle the experience of hundreds of person-years. Our solutions combine the advantages of standard products with the benefits and flexibility of custom development. With our competence in a broad range of applications, we know when to depart from conventional paths in order to obtain the optimal solution for a specific task.

In matters of hardware and software, we work primarily with established standard components from National Instruments and Microsoft but also use products of other manufacturers as well as components developed in-house. All components are individually adapted to the specific needs of the customer to ensure that every module is a perfect fit.

As experts, we demand maximum quality of ourselves. Many of our project engineers are certified LabVIEW developers. We constantly expand our qualifications and familiarize ourselves with new standards and innovative technologies as they relate to specific customers and projects.

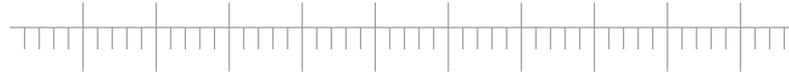
To best serve our customers, measX works intensively on the development of generally applicable, qualified standards. For instance, we are an active member in the AMA Association for Sensor Technology, ASAM (Association for Standardisation of Automation and Measuring Systems) and the Vehicle Safety Workgroup (AKFZ).

**measX is ISO-9001-certified
and a Platinum Alliance Partner
of National Instruments.**



- Our service spectrum**
- Consulting
 - Test bench technology
 - Automation
 - Test data management
 - Data analysis systems
 - Training



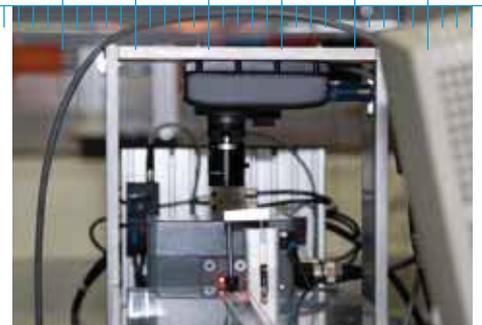
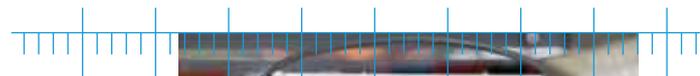


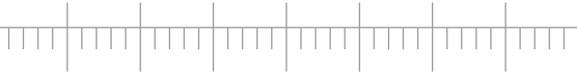
where Needed



*„It makes no sense to always reinvent the wheel.
Our core competence lies in adapting
proven standards to specific customer needs.
We focus on what matters most.“*

Heinz Rottmann, Director of Software Development





Success

New products and technologies place specific requirements on testing and measuring systems. Our experienced project engineers delve deep into your applications while still keeping the big picture in sight. This results in measurement systems and test benches that precisely and efficiently supply the desired measurement data while also being flexible and extensible. measX test benches are used

in research and development as well as industrial applications. Large or small, mobile or stationary, quickly modifiable for changing measurement setups – every test bench is adapted perfectly to the respective testing environment and requirements.

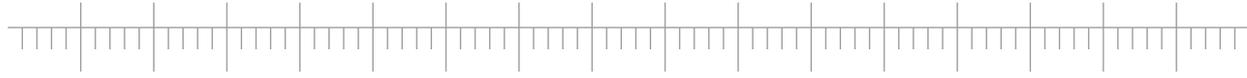
We realize sub-tasks as well as integrated systems as complete packages – from the sensors to signal conditioning and analysis. Our sales engineers operate with manufacturer independence to select exactly the right components for your testing tasks. Depending on the project requirements,



„We focus in particular on the interplay between the individual components and process steps. Especially for complex applications, it pays to source integrated systems from a single supplier.“

Harry Reimer, Sales Director





through Precision

we also develop special customer-specific solutions and manufacture them in-house. In test bench construction, we operate with competent partners for hydraulics and mechanical engineering who are also proven experts in their fields. Control, regulation and automation processes are individually integrated into the system and ensure maximum process reliability and efficiency.



From the initial specification through to continuous maintenance, we support the entire life cycle of your measurement and testing applications.

- Test bench technology**
- Signal conditioning**
- In-vehicle test systems**
- Automation technology**





Efficiency

Our test data management systems (TDM) are the answer to the continuously expanding requirements of test data analysis. Modular in design, they encompass all necessary process steps: from data

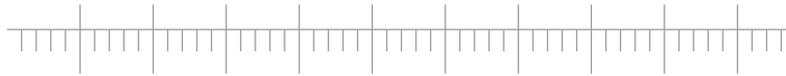
structuring and storage to analysis and report generation. Whether as individual files or in a large database – all test data is completely documented. The data is available in a dependable, structured form



„From system and function tests to component testing and endurance testing. Only structured yet flexible data analysis delivers a critical competitive advantage.“

Martin Winkler, Director of Test Data Management





in Analysis and Reporting

to support decision-making throughout your company. Flexible methods for analyses and reports offer users new levels of convenience, efficiency and reliability.

The linchpin of our TDM solutions is the application software X-Frame, which was specially developed for this purpose. The analysis systems are individually configured on the basis of this platform – with an eye to the data sets and IT environment of the customer, the desired analysis methods, the requirements for reporting and other company- and field-specific conditions. This process takes place in close coordination with the customer. After all, only

systems that actually meet the needs of the users can enable long-term optimization of internal processes. X-Frame is continuously expanded with new functionality and adapted to modern IT environments.

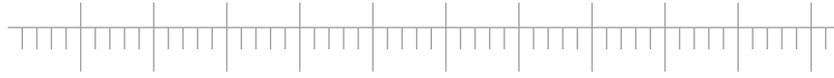
TDM solutions from measX are available as complete systems with fully implemented analyses or as frameworks in which users can integrate their own formulas and display types. We also provide the necessary assistance in the form of training, commissioning, coaching and support.



Our spectrum in the field of TDM ranges from single workstation solutions to applications with hundreds of users.

- Database design**
- Data management**
- Analysis systems**
- Automated report generation**





Mastery

Every day, we profit from our experience – and therefore so do our customers. We have realized a wide range of test benches, and we work with diverse databases and user interfaces. Naturally, every job is unique, but we are very familiar with the

fundamental problems of our customers and how to solve them. Project solutions that have proven themselves many times over are developed into internal standards, tools and products for mastering testing tasks with exceptional efficiency. The



„We always keep a close watch on the needs and wishes of the industry. There is good reason why X-Crash is the premiere analysis software for testing in the field of vehicle safety today.“

Sebastian Rings, X-Crash Development Lead





with Powerful Products

full scope of our application expertise is embedded in these systems. And they are continuously optimized.

X-Crash, for example: Based on the standard software DIAdem from National Instruments, X-Crash is one of the leading software solutions for testing in the area of vehicle safety. Users appreciate the open architecture of the software as well as its ability to quickly and reliably deliver precise analyses and reports. The analysis system sets standards throughout the industry. Automobile manufacturers all over the world as well as the European New Car Assessment Programme (Euro NCAP) rely on X-Crash.

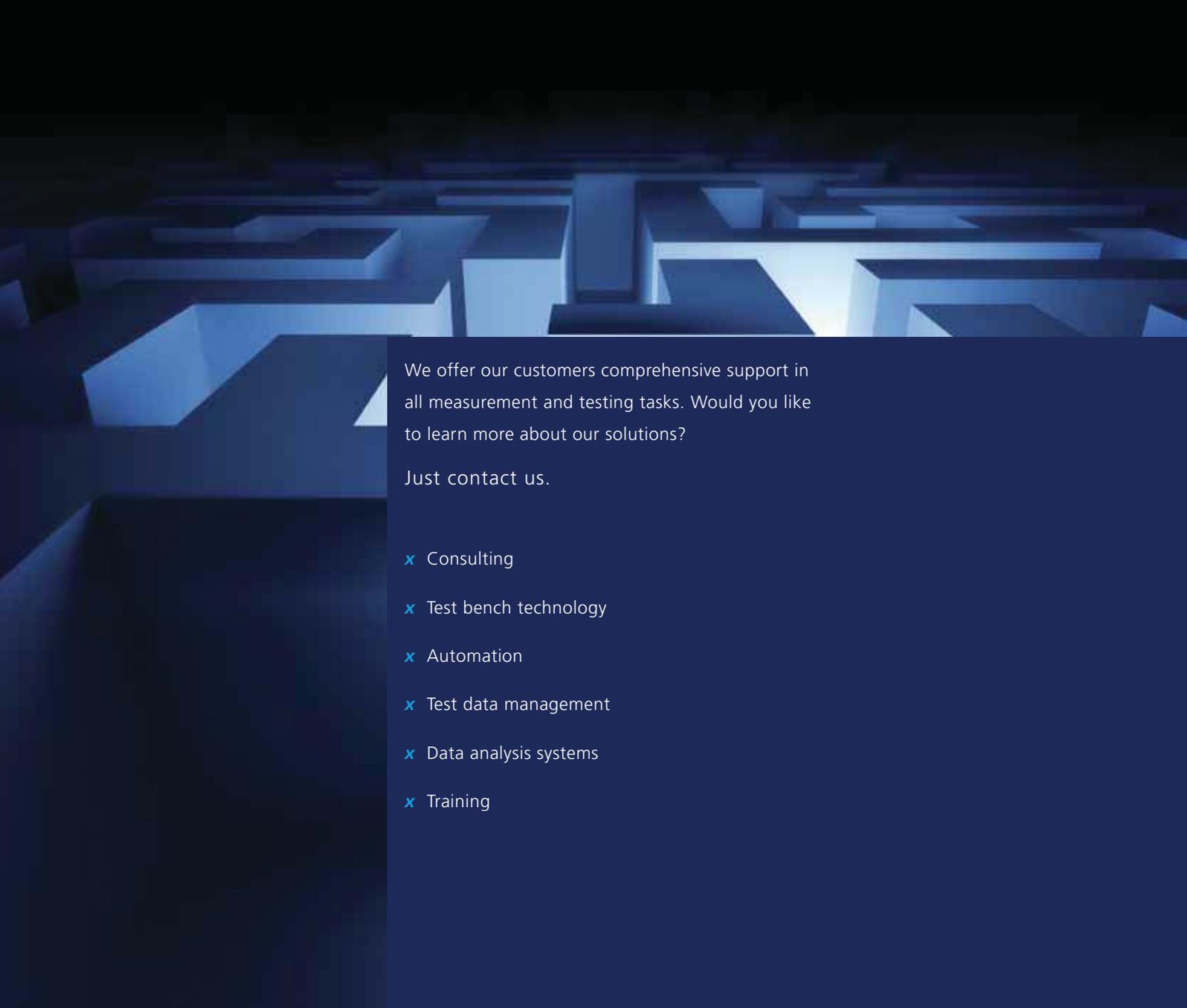
Or MOSES: This modularly designed measurement system was specially developed for vehicle dynamics testing. Open for the connection of all typical sensors, the integrated system optimally supports testing engineers and drivers in the planning, implementation and evaluation of vehicle dynamics testing.

And SARA: This automation system is tailored for the special requirements of test benches and processes in process engineering. Users are particularly pleased by the high flexibility of the system, which is open to diverse applications and sets new standards in the definition of parallel test processes via XML.

Internal standards and specially developed tools and products back the quality of our work and heighten the level of efficiency enjoyed by our customers.

X-Frame
X-Crash
MOSES
SARA





We offer our customers comprehensive support in all measurement and testing tasks. Would you like to learn more about our solutions?

Just contact us.

- x Consulting
- x Test bench technology
- x Automation
- x Test data management
- x Data analysis systems
- x Training



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