

Messe Stuttgart



# automotive testing expo

★ EUROPE ★

**MAY 20, 21 & 22, 2025**

MESSE STUTTGART, GERMANY

automotive  
testing  
technology international  
awards

To be presented live  
at Automotive Testing  
Expo Europe 2025!  
Details inside

# SHOW PREVIEW

Learn about the latest industry developments,  
explore new products and  
meet new suppliers

**250+**

INTERNATIONAL  
EXHIBITORS



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# Automotive Testing Expo Europe

The world's leading trade fair for accelerating development lifecycles and increasing product quality returns to Stuttgart this May!

Held at Messe Stuttgart in Germany on May 20, 21 & 22, Automotive Testing Expo Europe 2025 will feature more than 250 industry-leading companies. Representing every aspect of automotive testing, development, validation and quality engineering, they will display their latest products and services to help R&D teams upgrade and accelerate development, reduce costs, eliminate recalls and improve product quality. Completely free to attend, Automotive Testing Expo is firmly established as the global industry gathering for full-vehicle, component and systems development.

Meet with leading suppliers across two halls at Messe Stuttgart (Halls 8 and 10), and explore cutting-edge developments in vehicle dynamics testing, tire testing, ADAS and AV analysis, full-vehicle evaluation, simulation tools, lab test equipment, electric and hybrid powertrain analysis, battery and range testing, crash evaluation, emission measurement systems, durability testing, proving grounds and facilities – and much more. Discuss face-to-face your latest projects requirements with current and potential partners. Find out more over the next 18 pages...

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**250+  
INTERNATIONAL  
EXHIBITORS**



**OUTDOOR DEMOS**

Don't miss live demonstrations from some of our exhibitors, including e.fs, which will showcase its LeanDRA smart driving robot

**INNOVATION SHOWCASE**

OEMs, Tier 1 and Tier 2 manufacturers, suppliers and research institutions at the forefront of automotive testing, evaluation and quality engineering will present for two days alongside the exhibition

**AUTOMOTIVE TESTING TECHNOLOGY  
INTERNATIONAL AWARDS**

Celebrate the fantastic achievements of the world's top vehicle engineering suppliers and specialists. The categories cover all key areas of auto development and we've esteemed judges from Stellantis, GM, Mahindra Automotive North America, Mercedes and Volkswagen

**ATTI AWARDS FORUM**

A one-day conference focusing on the synergy between data-driven insights, advanced powertrain technologies and performance optimization in modern automotive testing. Discover the latest trends, practical case studies and cutting-edge solutions for the challenges facing today's auto industry

**ADAS & AUTONOMOUS VEHICLE  
TECHNOLOGY EXPO**

Explore the end-to-end ADAS/AV ecosystem at our co-located show in Hall 9 and attend conference presentations on regulations, standards, homologation, certification, AI, software, architecture, data, SDVs and more. Attend both shows and discover ways to enable and accelerate the mobility developments of tomorrow

**NEW FOR 2025!**

Introducing the ADAS & Autonomous Vehicle International Awards – celebrating the innovations shaping the future of connected and automated vehicle development

**DRINKS PARTY**

Network with your community of test and evaluation engineers, R&D managers, technical directors, heads of research and chief engineers at the awards and opening day drinks party







From left: Dr Huw Davies, Gemma Hatton, Phil Durston and Nils Katzorke engaged in a lively panel discussion, which sparked debates at last year's forum



Key dates

**Location:** ATTI Theatre & Awards / Innovation Showcase stage  
**ATTI Awards:** May 20, 2025 16:30  
(Day 1 of Automotive Testing Expo)  
**ATTI Forum:** May 21, 2025 10:30-16:00  
(Day 2 of Automotive Testing Expo)

Q&A: Vincent Sabatini, ATTI Awards judge

High-voltage systems test engineer, Ford Motor Company



What excites you most about being a judge for this year's ATTI Awards?

I look forward to seeing what entrants come up with at this level, especially for upcoming EV technologies that are going to affect me sooner rather than later.

What do you believe sets apart an award-winning entry?

I think a winning entry needs to have the 'wow' factor, but I also need to know why it matters, how it makes a difference – and it needs to have the data to back it up.

What are the current biggest headaches in your role?

I support system-level vehicle testing at Ford with a focus on electrified powertrains, both EV and HEV. The constantly evolving industry certainly makes things very challenging as this means our EV systems are also evolving rapidly, which means we need flexible solutions. We constantly have to be forward-looking, keeping on top of industry developments and trends to make sure our test environments can meet the testing requirements. EV charging might be the most difficult aspect right now, given the many developments affecting design decisions, such as NACS adoptions and issues with

charging infrastructure. Part of the challenge is that OEM vehicle charging is reliant on both physically and digitally interacting/communicating with an outside (non-OEM) piece of equipment.

Where do you foresee the biggest advances taking place over the next decade?

The biggest problem I see with EV adoption is charging and infrastructure. I expect there to be advances not only in charger development (to speed up DC fast-charging) but also in battery design. I think we will begin to see batteries that are both bigger (higher voltage for quicker charging, more storage for fewer charging stops) and smaller (quicker to charge). I also think that battery configurations will become more creative to improve charging.

What's one thing you hope people will take away from the awards?

Awards should highlight what can be accomplished with continual improvement. Some of the best innovations have been brought about by one person continually asking, "Why are we doing this, and can we do it better?", taking action to make it better, and then even better. We are not awarding the 'best', we are awarding the 'best for now', which will hopefully inspire the next person to ask, "Why are we doing this, and can we do it better?".

ATTI AWARDS FORUM (HALL 8)

Recognizing the fantastic achievements of the world's top vehicle engineering suppliers and specialists

The Automotive Testing Technology International Awards are a non-profit initiative recognizing the outstanding achievements of vehicle specialists worldwide. They consider companies of all sizes involved in automotive development and testing – from startups and SMEs to long-established players, including suppliers and OEMs. Launched in 2006, the traditionally magazine-based ATTI Awards have grown each year. ATTI welcomes nominations for new technologies, developments of existing ones, or innovative applications.

Held in conjunction with the ATTI Awards, the ATTI Forum will take place on Day 2 (May 21) of Automotive Testing Expo Europe 2025. This one-day conference will focus on the synergy between data-driven insights, advanced powertrain technologies and performance optimization in modern automotive testing.

It will bring together industry players to share insights and debate emerging trends. Attendees can expect a dynamic agenda, with expert panels, keynote sessions and interactive discussions designed to drive meaningful advances. Presentations will cover various subjects.

Key topics and themes

- 1. **Real-time data acquisition and analysis**
  - Advanced telemetry systems for live data collection
  - Edge computing for on-site data processing during tests
  - Big data tools for identifying trends and anomalies
- 2. **EMC and electronics**
  - Regulatory landscape for EMC testing
  - EMC challenges in high-voltage systems and EV charging
  - Immunity, electrostatic discharge, RF and transient testing
  - Hardware-in-the-loop testing for complex control systems
- 3. **Simulation and digital twins**
  - End-to-end virtual validation of entire vehicles
  - Creating high-fidelity models and integrating real-time data
  - AI-powered algorithms simulating real-world scenarios
- 4. **Hydrogen and alternative powertrains**
  - Specialized testing protocols for hydrogen storage and leak detection
  - Fuel cell stack performance and hydrogen refueling durability
  - EV battery performance and safety testing
- 5. **Embedded software testing**
  - Standards and requirements
  - Cybersecurity
  - Real-time and edge testing
  - Applications of simulation and digital twins

JUDGES

- Phil Durston**, technical manager, Volkswagen
- Mohammad Behroozi**, senior vehicle dynamicist, GM
- Nils Katzorke**, project manager, Mercedes-Benz
- Jahee Campbell-Brennan**, director, Wavey Dynamics
- Gemma Hatton**, freelance technical writer and former F1 tire engineer
- Graham Heeps**, freelance journalist
- Phil Morse**, founder and manager, Energy Balance
- Alex Grant**, freelance journalist
- Sharad Matade**, editor, *Tyre Trends and Motoring Trends*
- Carl Perrin**, CEO of the Institute for Clean Growth & Future Mobility, Coventry University
- Rachel Evans**, awards chair and editor, ATTI
- Robert Kado**, senior technical fellow, EMC, Stellantis
- Lakshmi Prasad Bhatta**, manager of CAE – Detroit MRV, Mahindra Automotive North America
- Vincent Sabatini**, high-voltage systems test engineer, Ford Motor Company
- Bolin Zhou**, technical director, CATARC
- Jon M Quigley**, founder, Value Transformation
- Dr Huw Davies**, senior lecturer, Centre for Future Transport and Cities, Coventry University
- Partha Goswami**, principal, PG Mobility Analysis



The ATTI Awards Forum is **FREE** to attend – scan the QR code to stay updated with the latest info





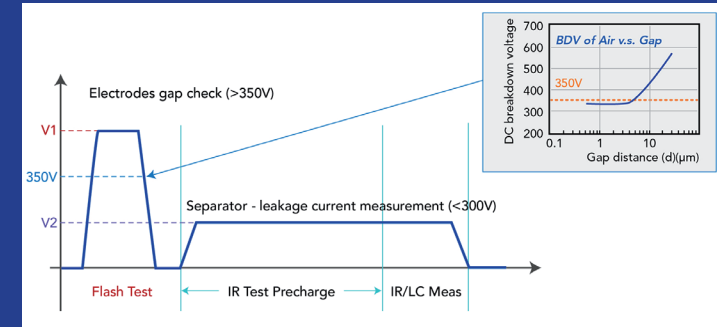


## JELLY ROLL INSULATION TEST STRENGTHENS LI-ION BATTERY FIRE SAFETY

### Chroma

➤ Most electric vehicle fires occur during charging. This is mainly because the negative electrode material used in most lithium-ion batteries will continue to expand after repeated charging and discharging cycles, reducing the distance between the positive and negative electrodes. This can lead to internal short circuits when the effective insulation distance between the electrodes is shorter than the designed value due to electrode burrs or metallic particles.

Two common problems in battery cell production inspection are low dry cell (jelly roll) insulation test voltage (<350V) and failure to detect electrical flashover that temporarily damages the separator during insulation testing. Addressing these issues, the Chroma 11210 Battery Cell Insulation Tester features an innovative electrical flashover detection



## ADAPTABLE WINTER TESTING – INDOORS

### Arctic Falls

➤ Arctic Falls is committed to meeting clients' evolving needs by offering adaptable and responsive winter testing solutions. With the launch of its third indoor facility, the company provides flexible environments designed to support a wide range of test requirements – including the development of ADAS and AV technology.

The indoor facilities ensure stable, repeatable conditions, eliminating external variables like weather and temperature shifts. This controlled environment is essential for accurate sensor validation, braking performance and tire grip testing. Arctic Falls works closely with customers to adapt test setups, modify track configurations and accommodate specific project demands.

Visitors with specific winter tests in mind can meet the team at Automotive Testing Expo Europe to discuss how Arctic Falls can effectively meet their testing needs.

**Booth: 1562**



## ONE-CABLE MEASUREMENT OF 500+ TEMPERATURE POINTS

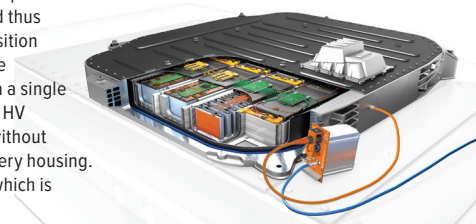
### CSM Computer-Systeme-Messtechnik

➤ Exact knowledge of thermal behavior and temperature curves is particularly important in the development of high-performance high-voltage battery systems. The acquisition of temperatures between cells and other vital points throughout the battery must be carried out safely to protect personnel and equipment. Often this is done at several hundred points simultaneously.

CSM's HV DTemp measurement system – which will be on display at the expo – was developed for the accurate, digital and thus interference-free acquisition of up to 512 temperature measurement points via a single cable connection to the HV DTemp-P central unit, without modification of the battery housing. The complete system, which is

HV-safe up to 1,000V DC, offers a measurement accuracy of  $\pm 0.1^{\circ}\text{C}$  to  $\pm 0.25^{\circ}\text{C}$ , allowing for exact tracking of temperature curves. The very small temperature sensors can be applied precisely yet flexibly, including using an ultra-thin, flexible circuit that can be customized for specific applications. The robust, compact design enables measurement at all levels (cell, module and battery). The system can be used on test benches or in-vehicle for road tests.

**Booth: 1312**



## FULL DAQ ECOSYSTEM

### Dewesoft

➤ Dewesoft offers a comprehensive ecosystem for automotive testing applications, providing cutting-edge data acquisition solutions tailored to meet the demands of modern vehicle development. From durability and NVH testing to combustion analysis, EV testing and ADAS validation, the company delivers high-precision hardware and intuitive software for seamless data collection, processing and analysis.

At the core of Dewesoft's ecosystem is its powerful DAQ hardware, featuring rugged, modular designs suitable for test labs and test tracks. These interconnectable systems support a wide range of sensors, including temperature, pressure,



acceleration, strain and high-speed video, ensuring comprehensive data acquisition across all testing scenarios. As visitors to the expo will be able to see, Dewesoft's flagship software platform provides real-time visualization, synchronized data

acquisition and deep analytical tools that can be easily integrated into existing automotive workflows. It supports advanced connectivity options such as CAN, CAN FD, XCP, FlexRay and EtherCAT, ensuring compatibility with modern vehicle architectures.

Dewesoft also offers specialized solutions for EV power analysis, brake testing, combustion diagnostics and structural testing, making it a one-stop solution for automotive engineers. With a commitment to accuracy, flexibility and user-friendly operation, Dewesoft's ecosystem empowers automotive manufacturers and suppliers to drive innovation and efficiency in vehicle testing.

**Booth: 8220**



## PRECISE, CUTTING-EDGE DATA ACQUISITION

### Dewetron

➤ In the fast-paced automotive industry, precise data acquisition and analysis are crucial to the development and optimization process. Data acquisition in automotive testing covers a wide range of applications such as power analysis, NVH measurements, vehicle dynamics and durability. As electromobility is becoming increasingly important, recording electrical parameters is essential not only on the test bench but also during real-world test drives.

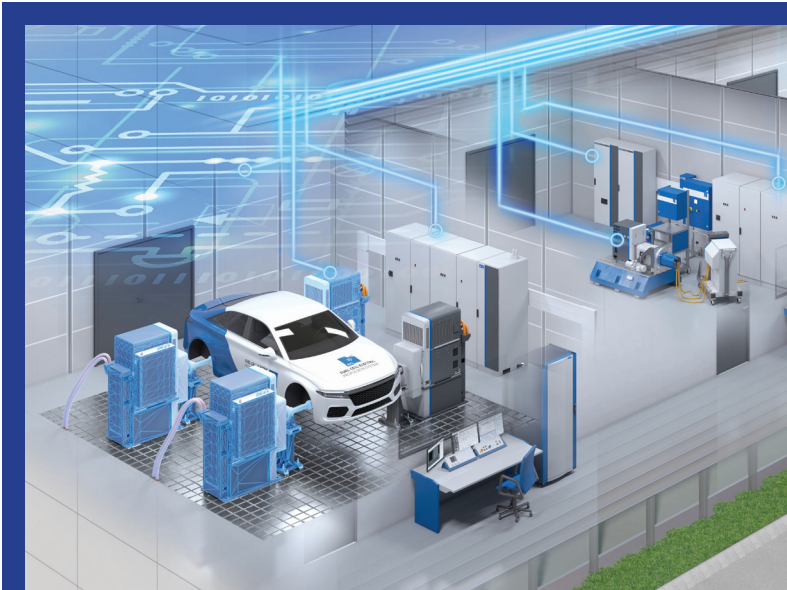
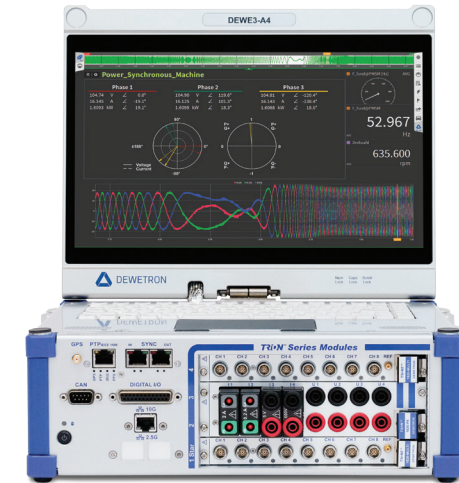
Compact, space-saving devices are vital for in-vehicle measurements. These DAQ systems require low power consumption or independent power sources, multiple interfaces for seamless communication with vehicle sensors, and high accuracy for reliable data. On the test bench, versatility and high sampling rates are crucial for capturing

dynamic processes. Fast data transmission and ample storage capacity handle the large volumes of data generated.

Dewetron offers innovative measurement systems tailored for the automotive industry. Its solutions include customizable chassis, versatile measurement modules and the powerful Oxygen software for comprehensive data visualization and analysis.

Dewetron's technology ensures precise and reliable measurements and is ideal for test bench and on-road applications. With its modular and flexible designs, Dewetron provides optimal solutions for development test benches, road tests and end-of-line test benches, making it the ideal choice for automotive data acquisition. Find out more at the expo.

**Booth: 8520**



## NEXT-GENERATION AUTOMOTIVE TESTING SOLUTIONS

### AVL

➤ At the expo, AVL will showcase the latest advances in accelerating automotive testing and validation, enhancing efficiency and driving sustainability. The company's scalable, high-quality offering empowers manufacturers to meet evolving industry challenges, from digitalization to electrification and sustainability. With over 75 years of expertise, AVL continues to drive testing innovation with one goal: sustainably equipping customers for future challenges.

AVL will have several futureproof testing technologies on display in Stuttgart. Its battery testing solutions – AVL Battery Cell TS, AVL Digital Battery Passport,

AVL Cameo 5 for Battery – ensure performance, safety and longevity from individual test and measurement products to facility services.

Also on display will be the company's comprehensive solutions for e-motor, inverter, thermal, NVH and full-vehicle testing, including the AVL E-Motor TS, AVL X-Rig System and AVL Inverter TS.

Elsewhere on the booth will be the company's software toolchain for automotive testing, which offers a seamless, integrated approach to streamline test, calibration and validation workflows. A highlight will be the AVL Creta 6 system.

Finally, the company will showcase its complete testing toolchain for ICE, hybrid and alternative fuel engine testing, including the AVL H2D, Shed FID SL and AVL hybrid-ready test systems.

**Booth: 1550**



## SOFTWARE-DEFINED VEHICLE PERFORMANCE ASSESSMENT

### Compredict

➤ Compredict will showcase the latest evolution of its virtual sensor technology, enabling engineers to replace physical sensors with high-fidelity, software-based alternatives.

Designed for validation environments and series production, Compredict's virtual sensors enhance system observability by introducing software redundancy, improving fault detection and increasing overall reliability.

These advanced solutions provide OEMs and Tier 1s with real-time insights into critical performance parameters, enabling precise measurement of component loads, wear progression and degradation trends. By leveraging physics-informed machine learning, virtual sensors facilitate predictive maintenance, optimize durability validation and refine component design based on actual in-service use patterns.

**Booth: 1374**







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## NEXT-LEVEL EV BATTERY ANALYSIS

### Instron

Testing requirements have changed since the introduction of battery-powered EVs. Above all, the test procedures for batteries are becoming more complex, to test as effectively as possible the loads and challenges that a modern electric vehicle must master.

With its RSLabsite Modulogic 2.7 software, which will be demonstrated at the expo, Instron enables test laboratories to test several influences simultaneously. For example, a test bench might need to manage hydraulic actuators for the durability profile, the power and state of charge of the vehicle battery, and the temperature profile of the climatic chamber in which it is located. As these tests often contain different profiles for the various peripherals, or sampling rates that deviate from each other in terms of time, it is often tedious to manage them manually and may lead to errors. With Instron's new BasTest RT optional advanced command generator (ACG), RSLabsite Modulogic 2.7 can automatically and efficiently synchronize and manage differing sampling rates and test profiles, saving time, money and effort.

Booth: 8332

## SIMPLIFIED EURO 7 COMPLIANCE

### ZF Friedrichshafen

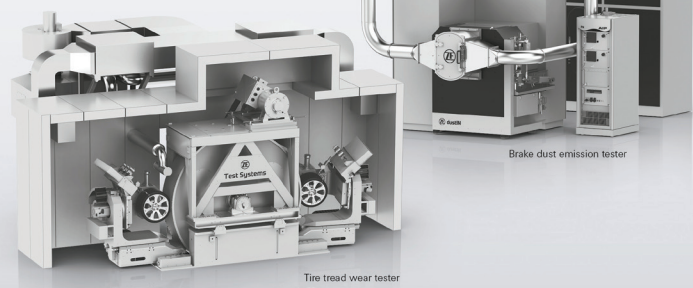
The Euro 7 emission standard is a significant step toward cleaner and more sustainable mobility in Europe. This new standard not only aims to reduce vehicle emissions but also places a particular focus on previously less considered sources of pollution, such as tire wear and brake dust.

ZF Test Systems supports the rollout of the Euro 7 standard with advanced lab testing solutions specifically designed for the analysis and evaluation of brake particles and tire wear.

As expo visitors will see, the dustIN test bench replicates realistic driving profiles to deliver precise, reproducible brake particle measurements, while the T-Wear tester optimizes tire wear tests to

reduce emissions and microplastics. With flexible, modular, turnkey solutions, ZF Test Systems empowers vehicle and component manufacturers to confidently meet emerging emission standards.

Booth: 1630



Discover why you should visit the ZF booth – watch now!



## INNOVATIVE ADAS TESTING SOLUTION

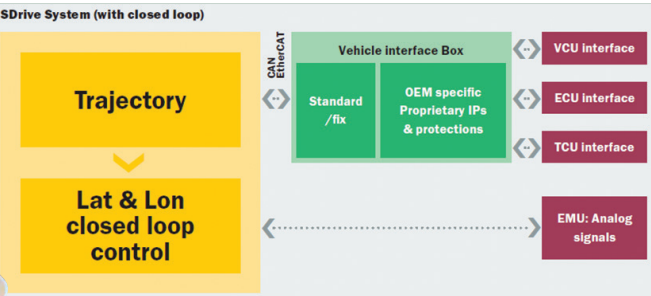
### Rototest

Rototest's integrated vehicle-in-the-loop testing environment combines steerable hub-coupled powertrain dynamometers and over-the-air sensor stimulation to provide comprehensive, cost-effective and safe evaluation of ADAS features. Expo visitors can experience how Rototest's



solution simulates various driving scenarios and conditions, bridging the gap between simulation, hardware-in-the-loop tests and real-world testing.

Booth: 1240



## INTERFACE TO ACCESS DRIVE-BY-WIRE FUNCTIONS

### Stähle

Most modern vehicles use internal AD/ADAS functions for vehicle control. Automated transmissions undertake gear changes electrically and use TCUs for access and control. Some of these functions can also be used for vehicle control during tests and maneuvers on chassis dynos and proving grounds. The Stähle LifeData Vehicle interface – available as part of

the SDrive system or as an optional addition to Autopilot systems such as the SAP2000 – makes it possible to communicate to a vehicle interface box. This enables the use of dedicated vehicle drive-by-wire functions instead of robot actuators, with physical robotic actuators employed only where needed. Find out more at the Stähle booth.

Booth: 1542



## NEW DEVICES FOR DATA-DRIVEN CRASH TESTING

### Diversified Technical Systems

DTS has released two new crash test devices designed to enhance safety and efficiency in a data-driven world. The DTS FMVSS305 for EV testing is a high-voltage recorder that captures critical voltage data during crashes, including vital HV1 and HV2 measurements before and after impact. Its remote measurement capabilities seamlessly integrate with static rollover systems like the 301, simplifying complex EV testing protocols.

The DTS Slice Pro distributor streamlines operations for engineers managing high-channel-count tests. This rugged device remotely controls signal integration, communication and power distribution for up to 820 high-speed data channels within a single vehicle. All communication, diagnostics, system monitoring and data downloads are accessible via a single, centralized connection.

These innovative test devices address the growing complexity of modern crash testing, from Global NCAP standards to the rise of NEVs and modeling. Visit the company's booth in Stuttgart for more information on the full line of DTS dynamic testing solutions.

Booth: 8016



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## SUSTAINABLE COOLING TECHNOLOGY

### Peter Huber Kältemaschinenbau

Peter Huber Kältemaschinenbau will present the Unimotive GL Series, the company's latest innovation in sustainable cooling technology. Powered by CO<sub>2</sub>, this range not only addresses the increasing demand for environmentally friendly solutions but also ensures exceptional performance and reliability.

The Unimotive GL Series is futureproof and energy efficient to meet modern automotive testing needs.

By leveraging the natural refrigerant CO<sub>2</sub>, the technology offers a significantly reduced carbon footprint compared with traditional cooling systems. This approach aligns with the company's commitment to sustainability.

Booth: 1315

## ADVANCES IN MEASUREMENT MICROPHONES FOR IN-CABIN ACOUSTICS

### Axiometrix Solutions

As the demand for high-quality infotainment, active noise cancellation and improved in-car communications increases, so does the need for greater accuracy, application-appropriate test equipment and standardized test procedures that facilitate comparable test results.

Despite their precision, measurement microphones inherently alter the soundfield due to reflections and diffractions caused by their size and shape. This challenge becomes critical in a car cabin, where non-ideal acoustic environments – defined by complex materials and confined spaces – compromise the test reliability. Smaller microphones, optimized for such environments, offer a solution, but also introduce new hurdles.

Additionally, the growing use of microphone arrays to characterize automotive audio systems presents unique challenges. To help manufacturers and suppliers meet these challenges, the Audio Engineering Society

has developed a standardized method for acoustic measurements in vehicle interiors and recommends the use of 1/4in high-sensitivity microphones for better precision, such as the GRAS 46BL-1, and the multifield 46BC microphone, which features an improved noise floor compared to other 1/4in microphones.

Audio professionals, including the automotive acoustic systems engineering department at Harman, have embraced these high-sensitivity 1/4in microphones, and it is expected that they will continue gaining relevance.

Booth: 1450



## HIGH-PRECISION VEHICLE DYNAMICS TESTING

### Sensoric Solutions Optic and Motion

Sensoric Solutions will officially launch the OMS Race sensor at Automotive Testing Expo Europe. The next-generation optical-inertial system is designed for high-precision vehicle dynamics testing.

Developed for motorsport teams as well as automotive research and development, the OMS Race provides unmatched accuracy in measuring speed, slip angle (<0.1° precision), acceleration (X/Y/Z), pitch and roll. With a 1kHz sampling rate

and four selectable mounting heights (180-300mm), it offers maximum flexibility across diverse test environments.

Thanks to advanced sensor fusion technology, OMS Race ensures reliable performance on all surfaces, even in rapidly changing conditions, without dropouts or interruptions. This makes it ideal for optimizing vehicle behavior, tire strategies and torque vectoring models.

Booth: 1342





## DATA COLLECTION IN TOUGH CONDITIONS

### Aptiv

➤ Ideal for situations that require a small, ruggedized device, the EP-800 is Aptiv's next-generation, compact vehicle data recorder (VDR). With its IP65, IP67 and IP68 housing ratings and internal antennas, the EP-800 can operate outdoors in nearly all weather conditions. It is suitable for validation of motorbikes, scooters, agricultural equipment and many other types of vehicles.

The compact EP-800 – on display at the expo – is designed to offer excellent performance. It can collect data from up to four CAN channels and supports automotive Ethernet, LIN and DoIP. Compared with its predecessor, it has four times the compute power, plus more storage, more USB ports, a 6D accelerometer, an integrated security chip and an OLED display.

The EP-800 is part of the complete Aptiv Connect Qualifier preproduction vehicle validation solution. Used by more than 70% of the world's leading vehicle manufacturers, Qualifier is the industry's most powerful and scalable preproduction validation solution.

Booth: 1583



## NOVEL VIBRATION TESTING SYSTEMS BUILT IN EUROPE

### Acutronic Switzerland

Acutronic will be showcasing several innovations in its vibration test system series, which complement its well-established rate table portfolio.

The Impulse X-Wings35 shaker series – including 40kN and 60kN air-cooled shakers and a new 90kN water-cooled shaker – now covers a wide range of

environmental tests requiring 40kN to 200kN of force or 120kN to 600kN of shock force.

Acutronic claims it is the first shaker manufacturer to introduce digital vibration command input to the power amplifiers, enabling noise-free vibration motion profile testing.

The company's innovative modular amplifier design is based on SiC components – a first in the vibration industry, according to Acutronic. These high-efficiency components significantly reduce thermal loss and energy waste, improve

current sharing between the power modules and offer an increased switching frequency for even smoother vibration motion, compared with IGBT transistors commonly used in the industry. Acutronic's solutions are known for their high accuracy, motion fidelity, system reliability and availability.

Booth: 1215



## HIGH-QUALITY IMAGE ACQUISITION

### Photron

➤ Photron will be showcasing the new generation of its popular Fastcam Mini series at the expo. With a proprietary 4K/UHD sensor, it is ideally suited for applications where observation of a large spatial area without loss of image quality is required. Automotive safety testing (car-to-car, pedestrian, barrier/rollover and curtain airbag), fluid dynamics (PIV, microfluidics) and material testing (DIC, drop) are some of the main applications for this product.

The Fastcam Mini R-4K cameras offer 12bit image recording rates of up to 750fps (Mini R3-4K) and 1,250fps (Mini R5-4K) at 4K resolution, with impressive shutter speeds that go as low as 2µs. The

camera also offers recording rates of up to 150,000fps (Mini R3-4K) and 200,000fps (Mini R5-4K) at lower image resolutions.

The Fastcam Mini R-4K cameras are compact, rugged and lightweight, and provide the best light sensitivity and image quality.

Key features of the Fastcam Mini R-4K include an internal mechanical shutter that allows for remote system calibration, a high-performance 10GigE interface for seamless camera control and fast image



download, and memory segmentation that enables recording into one memory partition while downloading from another.

Booth: 8510



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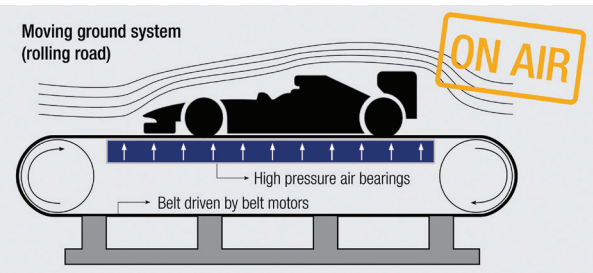
## FRICITION SOLUTIONS

### IBS Precision Engineering

In high-precision applications, components need to perform with almost imperceptible margins of error. Bearings play a critical role, guiding and supporting the movement of parts with ultra-high accuracy. While traditional ball bearings have served as the workhorse for many applications, they hit a wall when it comes to achieving the very highest levels of precision. This is where air bearings step in, offering a technological leap forward for tasks demanding unmatched accuracy.

Unlike ball bearings, which rely on rolling contact and generate friction, air bearings work on a cushion of air, resulting in minimal friction and virtually no wear. Air bearings can operate at very high speeds and in rapid acceleration/deceleration, delivering smoother and quieter operation. This offers new bearing solutions for high-speed tire testing, rolling roads, frictionless drivetrain testing and silent motion solutions for acoustics testing. For rolling roads, IBS has recently achieved loads of 10kN and speeds of 100m/s. Find out more at its booth in Stuttgart.

Booth: 8614



## VIBROACOUSTIC ANALYSIS FOR NVH VEHICLE DEVELOPMENT

### KFB Acoustics

➤ Revolutionary vibroacoustic analysis reveals how engine excitation and road roughness at low speeds cause structural elements like doors, roofs and windshields to resonate at natural frequencies. These resonances amplify low-frequency noise (boom effect) inside the cabin, affecting passenger comfort. This study employs an acoustic dynamometer in a semi-anechoic environment with rough road shells and a 3D laser vibrometer integrated with a seven-axis Kuka robot embedded with RoboVIP software for precise vibration measurements. Real-time data acquisition and FEM simulations correlate experimental results with predictive modeling, optimizing noise control strategies and enhancing vehicle design. Find out more at KFB's booth.

Booth: 1724



## PRESSURE CYCLE TEST BENCH FOR THERMAL MANAGEMENT COMPONENTS

### Poppe + Potthoff Maschinenbau

➤ Thermal management is needed to optimize battery efficiency, vehicle safety and comfort in electric vehicles. As EVs lack combustion engine heat, advanced heating and cooling systems are essential. Testing these thermal management components ensures performance and reliability. The German company Poppe + Potthoff Maschinenbau will be showing its customized test solutions at the expo, including pressure cycling, burst pressure and functional tests under real-world conditions.

In a typical test, components like ECU cooling units or valves undergo over 100,000 load cycles to simulate a vehicle's lifespan. Using a water-glycol or pure glycol mixture, cooling circuits are tested at -40°C to +20°C, while heating

circuits endure +20°C to +140°C. A closed test media circuit prevents explosive vapors. Tests can be conducted in climate chambers, with optional over- and under-pressure testing. Flow rates range from 1-50 l/min at 0.2-12 bar (or higher), with programmable load cycles at 0.2-2Hz or faster.

A long-term test lasts 20-30 days, depending on load change frequency. Temperature, volume flow and ambient conditions vary per test specifications. Measurements include inlet/outlet temperature, flow rate, pressure, voltage and current. The focus is on thermal and electrical performance, with sensors detecting energy loss (thermal bridges) or overheating risks.

Booth: 8030



## WATER-COOLED VIBRATION TEST SYSTEMS

### Labtone Test Equipment

➤ Labtone will be displaying its water-cooled vibration test system at the expo. The system can reach up to 350kN and offers several advantages.

Water-cooled shakers are designed for applications involving larger payloads and more demanding structural tests, offering high force and load-bearing capacity.

The water-cooling system enables extended operation and

higher performance capabilities at high vibration levels, even with large payloads.

Furthermore, water-cooled shakers generate lower acoustic noise levels than air-cooled systems. They typically have a longer lifespan and require less maintenance due to their robust design and ability to dissipate heat effectively.

Booth: 8222

## FUTUREPROOF DATA ACQUISITION

### Influx

➤ Influx will be showing its most advanced datalogger, the ReXgen Pro, which is designed for unmatched security, reliability and real-time performance. Built on a multilayer architecture, it ensures precise logging without data loss, enabling edge computing and CAN-to-cloud integration.

ReXgen Pro allows users to access their invaluable insights remotely without the need for physical connections. Supporting UDS and XCP, it enables real-time diagnostics, flash programming and high-speed data acquisition, making it ideal for ECU development, vehicle testing and fleet monitoring.

Designed for any environment, ReXgen Pro's rugged, compact IP65-rated build and generous onboard storage ensure users can capture and manage critical data with confidence wherever their work takes them.

Booth: 1629







## HIGH-VOLTAGE TESTING WITH ENSURED SAFETY AND RELIABILITY

### Schaltbau

The global shift toward electrification and the rise of battery systems across sectors heighten the need for safety and reliability in testing throughout development and end-of-line processes. When selecting contactors, several key criteria should be considered. Very low contact resistance is crucial as it ensures low heat dissipation and high current-carrying capability. Excellent isolation parameters are also important, with requirements sometimes exceeding 6,000V. Additionally, auxiliary



contacts are necessary for a safe feedback loop according to IEC 60947-4-1. With its robust Eddicy portfolio, including the C303 bidirectional contactors known for ultra-low contact resistance and superior thermal management, Schaltbau is a trusted industry partner offering all the above with sustainable, Europe-based production that ensures minimized supply chain risks and a reduced environmental footprint. Learn more at the company's booth. **Booth: 1375**

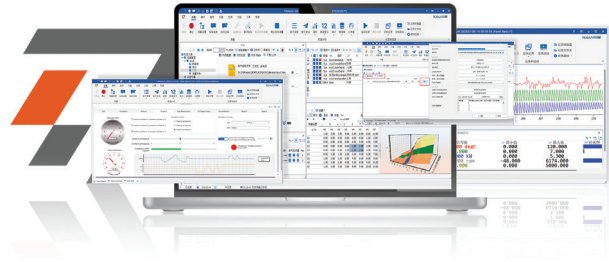
## INNOVATIVE, COST-EFFECTIVE TOOLCHAIN FOR AUTOMOTIVE DEVELOPMENT

### Shanghai Tosun Technology

TSMaster from Shanghai Tosun Technology is a powerful software tool for automotive network monitoring, simulation, calibration and data processing. It supports parsing and analyzing communication messages while integrating with databases such as DBC, LDF, XML, ARXML and CSV. Users can create custom panels, send/receive bus messages, record and replay data and use scripting for automation. Each line of code in TSMaster is independent, shareable and hardware compatible. Built on TSMaster, the company's desktop HIL system replaces traditional real-time HIL setups

with a single computer or laptop, greatly reducing costs and increasing flexibility. TSMaster also supports MATLAB Simulink co-simulation, CarSim integration, and compatibility with other bus tools, industry-standard instruments and boards.

Expo visitors can find out more about how TSMaster is easy to learn and free from brand restrictions. It meets all testing needs with flexible licensing options. It supports LIN, CAN, CAN FD, FlexRay and automotive Ethernet. **Booth: 1300**

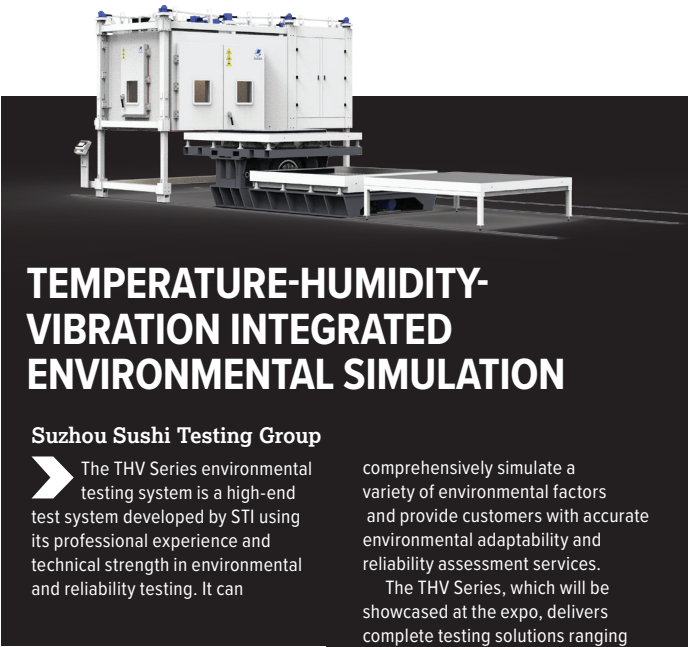


## HYDROGEN VEHICLE MEASUREMENT

### TrigasDM

As a contribution to a sustainable energy mix, TrigasDM offers one of the first certified hydrogen consumption measurement solutions for vehicles, along with calibration and verification services for trailers and H<sub>2</sub> fueling stations. The DM Series turbine flow meters offer precision within 0.1% of MW, making them sought after in automotive, aerospace, energy, research and industrial applications. The DML Series features high accuracy for small flow rates starting at 3.5ml/min. As an official distributor and European service center for Alicat mass flow and pressure controllers for gases, TrigasDM

offers ideal solutions for batching, dosing and mixing of gases. The TrigasFI ISO/IEC17025-accredited laboratory for flow measurements of liquids and gases has 35 years of calibration experience with some of the highest accuracy standards in Europe. At the expo, the company will present its on-site calibration services for liquids and gases, extending its calibration services to various brands and measurement principles. With competitive pricing and quick turnaround times, including a 48-hour express calibration service, TrigasDM ensures customer satisfaction, even in urgent situations. **Booth: 1346**



## TEMPERATURE-HUMIDITY-VIBRATION INTEGRATED ENVIRONMENTAL SIMULATION

### Suzhou Sushi Testing Group

The THV Series environmental testing system is a high-end test system developed by STI using its professional experience and technical strength in environmental and reliability testing. It can

comprehensively simulate a variety of environmental factors and provide customers with accurate environmental adaptability and reliability assessment services. The THV Series, which will be showcased at the expo, delivers complete testing solutions ranging from singular environmental stress to intricate multistress combinations. By integrating temperature, humidity and vibration, the system can simulate various extreme environmental conditions that products may encounter during transportation, storage and use. The STI vibration shaker and environmental test chamber have a structurally integrated design. Integrated control, vibration, temperature and humidity, and data export can be achieved on the same software interface and support the customization of non-standard functions (such as product temperature control and remote communication). Programmable stress profiles comply with MIL-STD-810, IEC 60068 and other international reliability standards. Find out more at the expo. **Booth: 8410**

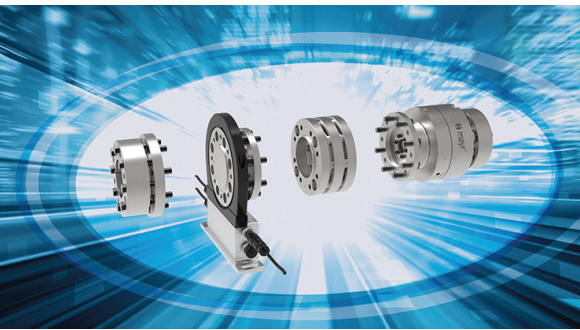


## RELIABLE COUPLINGS AND TORQUE LIMITERS FOR HIGH-SPEED APPLICATIONS

### Mayr

Drive axles in the high speed range require reliable couplings and torque limiters for overload protection and to compensate for shaft misalignment. Mayr Power Transmission will present its new solutions for test benches. Based on the Roba DS steel disk pack coupling, Mayr has developed a weight-optimized aluminum version. Compared with the steel version, the outer diameter of this new design has been reduced by up to 10mm and the mass and mass inertia range from 40% to 60% of the steel version, depending on the design and size. The performance density remains unchanged. The coupling is tailored to high-speed test cases, for example in test bench technology. Shaft couplings are a crucial accessory in test benches because they minimize the disturbance variables acting on the measuring flange. These so-called

parasitic forces are often caused by misalignment in the drivetrain. Offsets between the input and output sides occur in almost all cases. Shaft couplings are thus used with the measuring flange. Reliable overload protection at high speeds is also crucial for high-speed test cases. If the torque in a test bench exceeds the limit value set on the torque limiter, the clutch disengages and separates the input and output within fractions of a second. At worst, the measuring shaft must be recalibrated after an overload, but the safety clutch reliably prevents expensive damage to the drivetrain or test specimen. Mayr's EAS HSE safety clutches transmit torques backlash-free and with high torsional rigidity. They are also compact and have a low mass moment of inertia with a high power density. **Booth: 8112**



## FULL-SURFACE VIBRATION MEASUREMENT

### Polytec

Polytec will be showing expo visitors how VibroScan QTec measures vibrations contactlessly and with unprecedented precision. With its groundbreaking multichannel interferometry and diversity combining, the system sets new standards in terms of optical sensitivity and noise immunity. QTec results in a stabilized signal and a high signal-to-noise ratio. It is ideal for technical surfaces, ensuring consistent, reliable measurements and shortening the measurement time. **Booth: 1220**



## UNIFIED APPROACH TO HIL AND DRIVING SIMULATION

### Meccanica 42

Hardware-in-the-loop simulation is crucial in automotive development, enabling precise validation while optimizing time and costs. At the expo, Meccanica 42 will introduce Virtual Column, an innovative software that bridges HIL test benches and dynamic driving simulators, addressing vehicle-level simulation needs and component-specific testing, such as steering systems. By integrating the steering feedback unit and steering robot through Virtual Column, test engineers can seamlessly test a real



steering system in HIL environments and dynamic simulators, ensuring accurate performance replication. To validate this approach, key maneuvers – including ramp steer, weave and track tests – were conducted, demonstrating a high correlation between virtual and real-world conditions. The results confirm that Virtual Column preserves the steering system's behavior, enabling precise evaluation in controlled lab tests and immersive driving scenarios. This innovation enables a holistic validation strategy, enhancing both steering component testing and full-vehicle dynamics analysis. Engineers gain deeper insights into steering response, passenger impact and safety-critical conditions, ensuring a more robust and efficient development process. By seamlessly bridging component-level and vehicle-level testing, Virtual Column optimizes hardware-in-the-loop workflows, driving forward both simulation fidelity and real-world accuracy. **Booth: 8408**

## ALL-IN-ONE TEST BENCH CONTROL

### Next Automotive Testing

TestCore from Next Automotive Testing is not only the central graphical user interface for modern test benches but also the control unit for DUTs, load machines, electrical sources and loads, measurement technology, external devices and components. It is used to record and process measurement data, manage user profiles and test programs and control test sequences. Safety

technology is integrated to protect employees and the system, prevent unauthorized access and switch off in the event of danger.

Test cases and test campaigns can be created and carried out automatically.

TestCore can be integrated into users' current test bench technology, and future devices and systems can also be integrated. Next's test portal gives users access to the status of their current test session, an overview of the results and current data from ongoing or completed tests at any time. **Booth: 1356**







## LIGHTWEIGHT ALLOYS FOR AUTOMOTIVE VIBRATION TESTING

Luxfer

Luxfer Magnesium Rolled Products will showcase its premium magnesium alloys, AZ31B and Elektron 43, at the expo. These are widely recognized as excellent materials for vibration testing, offering damping properties that significantly reduce resonance and improve test accuracy. Their ability to absorb and dissipate energy efficiently makes them ideal for automotive vibration testing, ensuring precise, reliable results. Being 75% lighter than steel and 35% lighter than aluminum, magnesium offers tremendous

benefits to the automotive industry. By integrating magnesium components, automotive manufacturers can achieve significant weight savings without compromising strength or durability.  
**Booth: 8519**



## MEASUREMENT ACQUISITION MODULES FOR HIGH VOLTAGE AND CAN

FEV (Enorise)

At this year's expo, Enorise – formerly FEV's Test Systems division – will present the evolution of its MIO range of measurement acquisition modules.

The company's first major development is the adaptation of its range of modules to measure physical quantities in electric vehicles, particularly voltage. The various analog and thermocouple modules in the MIO range have been gradually converted to meet the 1,000V CAT III insulation

class of the IEC 61010 standard, enabling them to measure up to 1,000V continuously. They are already being used for battery and electric motor testing applications for electric vehicles.

The Enorise range previously used EtherCAT as its communication protocol because EtherCAT is particularly well suited to automated applications and

real-time processes. Now, to make the range even more generic, Enorise has added the CAN communication protocol, commonly used in the automotive industry, to its range. This extends MIO's range of applications, enabling it to be connected quickly and securely to any CAN-based automation system or measuring device.

Combined with its compactness and robustness, this makes MIO particularly suitable for use in test benches and even embedded solutions.

**Booth: 1122**



## NEXT-GENERATION PRECISION IN BATTERY EVALUATION

Wattical Energon Tech

The Wattical cell tester advances battery performance evaluation, safety and reliability, integrating ripple current testing, ultra-fast sampling and optical communication for precise, real-world simulation.

Ripple current testing applies controlled AC ripple currents (100A peak-to-peak, 10-1,000Hz) to mimic real conditions, providing insights into heat generation, capacity fade and impedance changes – critical for EVs and renewable energy systems.

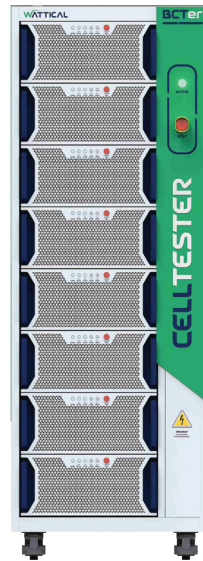
Ultra-fast sampling captures cell parameters with a 1ms sampling rate, enabling early fault detection and enhancing

SOC/SOH estimation. High-frequency data acquisition ensures more accurate analysis of dynamic cell behavior.

As the only system with optical communication, the Wattical cell tester ensures high-speed, interference-free data transmission, eliminating electromagnetic disruptions for seamless real-time monitoring.

By meeting industry standards and enhancing safety and efficiency, the cell tester provides battery makers, research institutions and OEMs with a future-ready solution for high-precision battery testing.

**Booth: 1160**



## ENTIRE LIFECYCLE VEHICLE DIAGNOSTICS SOLUTION

Windhill Technologies

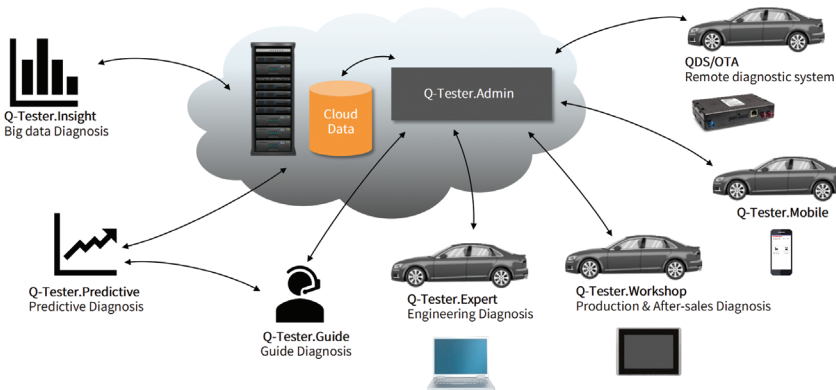
The Q-Tester family will be on display at the expo. It is used for lifecycle vehicle diagnostics from engineering and testing to production and aftersales. The solution is based on ODX/OTX/SOVD open standards and can be adapted to fit all OEM requirements. Q-Tester includes cloud and app solutions.

The Q-Tester app solution includes Q-Tester.Expert, Q-Tester.Workshop, Q-Tester.Mobile and the QDS smart diagnostic engine, which is the

fourth-generation diagnostic tester. Q-Tester.Workshop can run on Windows, Linux, Android and iOS with the concept 'Develop once and run everywhere'.

The Q-Tester cloud solution includes Q-Tester.Admin, Q-Tester.Insight, Q-Tester.Predictive and Q-Tester.Guide. These platforms extend the Q-Tester app and provide powerful functions to repair the vehicle easily.

**Booth: 1740**



Supported Standards: OTX OTX (ISO 13209) / ODX ODX (ISO 22901) / ASAM SOVD1.0.0



## FLOW METERING TECHNOLOGY

VSE Volumentechnik

VSE will present its latest developments in flow metering technology at the expo in Stuttgart, including the Cal.flow portable calibration system and the Log.flow datalogging system. These USB devices, including the associated PC software, expand the traditional product range of flow metering technology and evaluation electronics. In addition, the IO.flow Converter will be presented, which significantly improves the integration of flow meters in Industry 4.0 applications.

The new Cal.flow calibration system enables precise flow calibration and is aimed specifically at users who want to carry out regular, independent checks of their measuring devices. Thanks to its portability and ease of use, Cal.flow offers a flexible solution for direct on-site calibration. This makes it particularly attractive for companies with their own test benches, as they can ensure the functionality and accuracy of their devices without the need for external services.

Log.flow is an advanced solution for the detailed recording and visualization of measurement data. In combination with the EasyGraph software, it enables comprehensive data analysis. Log.flow is ideal for use in the field to detect and document dynamic flow phenomena, making it much easier to diagnose and analyze systems.

**Booth: 1710**



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## AUTOMATED TESTING SYSTEMS FOR ECU VALIDATION

WKS Informatik

The LV124 and LV148 norms, along with related standards such as VW 80000 and ISO 16750-2, are essential for automotive validation. WKS Informatik claims its RTStand LV124/LV148 is the only fully automated testing system worldwide for these standards, setting the benchmark for precision and product quality. Supporting a vast library of norms, it enables testing for automotive Ethernet 1000base-T1 and GMSL interfaces, with more interfaces in development.

Unlike manual setups, the system ensures consistent, non-arbitrary testing for short circuits, offsets, overcurrents, backfeeds and complex KL30/KL15 parallel running profiles. Thanks to its generic design, it can be used for various ECUs, offering maximum flexibility. Users can also define custom test cases and norms, ensuring unparalleled reliability.

The latest RTStand LV124/LV148 software release introduces fully automated PDF reporting, reducing testing and analysis time by 75% or more and maximizing efficiency.

**Booth: 1302**



## MULTISENSOR FUSION FOR ROBUST AND ACCURATE TEST DATA, ANYWHERE

Oxford Technical Solutions

Inaccurate ground truth data results in invalid tests – and potentially unsafe features. OxtS aims to ensure users get accurate, real-time data in any environment, including indoor and underground facilities with no GNSS coverage, so vehicle features can be validated with confidence every time.

Automotive Testing Expo exhibitor OxtS champions multisensor fusion to deliver robust and accurate localization in and across any environment. In particular, its recent advances in real-time lidar fusion open up exciting possibilities for a new generation of ground truth solutions for



automotive testers that are versatile, robust and simple to set up – while remaining affordable.

Talk to the team at Automotive Testing Expo to discover how the company can help make testing more versatile and accurate in challenging environments, without overcomplicating setup or making it prohibitively expensive – and always with an eye on what matters: delivering accurate results, fast.

**Booth: 8364**

## FLEXIBLE POWER CONVERTER SYSTEM AND VIL TESTBED

KS Engineers

KS Engineers will present its Advanced Modular Power System (KS-AMPS) at the expo. The flexible, highly dynamic power converter system enables a wide range of applications to be realized simply and optimized for specific requirements. The modular architecture ensures that functional and power enhancements are uncomplicated, providing a system solution for battery simulation and testing, electric machine emulation, control of loading units, or combination applications.

The company will also highlight its KS-R2R VIL testbed. It says the testbed is the first of its kind accredited according to EN ISO/IEC 17025:2017 for power measurement at the wheel hub, enabling the determination of EV power according to standards such as UN GTR 21 and SAE J2908. Combined with an in-house-developed charging unit that supports all charging standards, the testbed enables e-mobility tests such as planning charging stops under different load and road conditions.

**Booth: 1131**







## ADVANCED POWER ANALYZER FOR PRECISE MEASUREMENT

Suita Electric Global Corporation

Suita will showcase the SPAW7000 power analysis wavecoder, an advanced instrument designed for high-precision power measurement and analysis. With seven power channels and two motor channels, it supports flexible power module configurations, making it an ideal solution for EVs, renewable energy, inverters, motors, batteries, lighting, household appliances and aviation electronics.

Engineered for accuracy, the analyzer offers real-time data visualization with waveform displays, trend graphs, bar graphs and vector diagrams. Its advanced analytical capabilities include harmonic analysis, motor evaluation, voltage fluctuation and flicker measurement and fast Fourier transform (FFT), providing deep insights into power systems for research, development and quality control.

With an impressive measurement accuracy of up to 0.01% of reading, it ensures reliable data collection. The harmonics analysis function supports up to the 500th order, optimizing efficiency for inverters, motors and other applications. The multichannel system enables customized module configurations, adapting to a variety of testing needs.

Booth: 1482



## TRANSMISSION VARIABLE-FREQUENCY DRIVE

Inovance Technology Co.

The company will be showcasing its MD880 series standalone transmission variable-frequency drive at the expo. The solution employs high-performance vector control technology to deliver low-speed, high-torque output with stable performance.

Featuring a highly flexible, modular design, the system includes standalone frequency converters, basic rectifiers, regenerative rectifiers, active rectifiers, inverters and DC-DC converters that can be flexibly combined.

Its design lifetime supports continuous full-load operation for over 10 years and includes a black box function. The drive achieves a maximum rotational speed of up

to 25,000rpm, with a speed fluctuation of only 0.01% and a torque accuracy better than 3%.

Booth: 1748



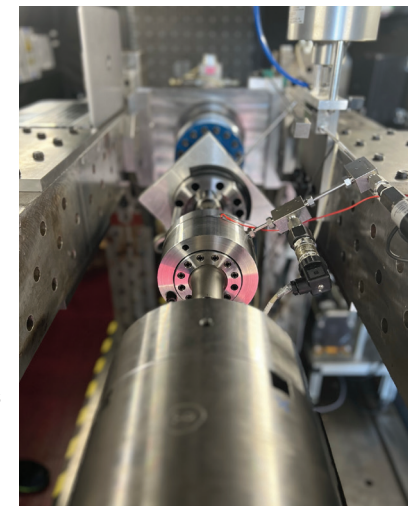
## INNOVATIVE TESTING TECHNOLOGY FOR HYDROGEN

SincoTec Group

The SincoTec Group will present innovations in testing technology at the expo. This will include its newly developed and patented hydrogen test cell, which enables tests in hydrogen atmospheres of up to 1,000 bar without any moving seals. This has enormous advantages in terms of friction and wear, control accuracy and possible test frequency.

Testing applications include pipelines/crack propagation up to 1,000 bar, tank materials up to 1,000 bar, quasistatic tear tests for gas station technology at -60°C, materials for fuel cells under humidity, and materials for hydrogen burners at temperatures up to 900°C.

Booth: 8120



## BRAKE DUST EMISSIONS AND HYDROGEN ANALYSIS

Fakt

Fakt offers vehicle testing and engineering services, certified to ISO IEC 17025. It has six state-of-the-art test benches designed for measuring brake dust emissions under GTR24/Euro 7 standards. These enable accurate analyses, essential for developing environmentally friendly brake materials such as brake pads and discs. As an experienced development partner, Fakt supports the pursuit of innovative solutions, ensures compliance with legal approval requirements and conducts in-house effectiveness tests for new material approvals.

Another major addition is Fakt's testing services for hydrogen components in compressed high-



pressure tanks with NWP up to 700 bar or even complete hydrogen vehicles. In-house test facilities enable the company to perform a comprehensive range of evaluations, including bursting tests, static and dynamic pressure cycles, extreme temperature tests, fire-resistance evaluations and crash behavior analyses.

The company has also expanded its portfolio to include motorsport brake testing, noise measurements on a heated standard test track and climate tests in a large climate chamber for complete vehicles. It also provides cybersecurity testing to ensure compliance with the latest safety standards. Visit the company's booth for more info.

Booth: 8249



## CONTACTLESS VIBRATION MEASUREMENTS FOR NVH

Optomet

In NVH analysis for vehicles, precision and reliable data are absolutely critical. Traditional sensors influence the structure and distort results but Optomet's Smart Series laser Doppler vibrometers provide 100% contactless vibration measurement, ensuring the highest accuracy.

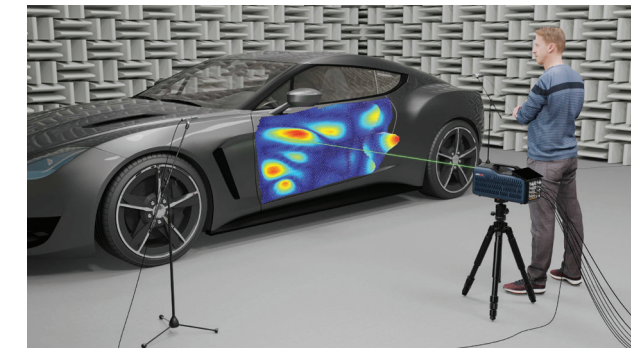
According to Optomet, it enables synchronization of multiple vibrometers with subnanosecond precision. This enables simultaneous measurements at multiple points, ideal for complex modal

analysis, NVH testing and vibration assessment of automotive components.

The company's state-of-the-art new software enables the use of 3D models (Nastran) to validate calculated data against real measurements, ensuring the highest level of accuracy and reliability.

The Smart Series captures the finest vibrations, enhancing the efficiency and accuracy of brake, chassis, electric motor and battery housing tests. Find out more at this year's expo.

Booth: 1568



## AUTOMATED ISO 21498-2 TESTING

IAV

IAV will present the latest addition to its Auros platform, which enables flexible and efficient HV analysis, at the expo. The IAV Auros Iso add-on enables users to fully automate their high-voltage component testing while ensuring compliance with ISO 21498-2 regulations.

The main advantage of IAV Auros Iso is its ability to perform all defined test cases without the need to modify the electrical setup of the device under test. As an extension of the existing Auros platform, it offers the same comprehensive functionalities in the fields of electrical safety and test automation.



Expo visitors will have the opportunity to see IAV Auros Iso in action for the first time, including an in-depth look at complete test automation and the generation of management-ready reports.

Booth: 1576



**REGISTER NOW  
FOR FREE ENTRY!**

## NEW BICYCLE ADAS TARGET

AB Dynamics

AB Dynamics' new bicycle ADAS target, the Soft Bicycle 360, will make its European debut at Automotive Testing Expo Europe 2025. The target is said to be 30% lighter than comparable targets while maintaining stiffness and durability, and has been designed to reduce potential damage to test vehicles. The result for testing

engineers is increased uptime, improved efficiency in testing campaigns and reduced overall testing outlay.

The Soft Bicycle 360 features a cleverly designed single-piece frame architecture that removes the need for connectors, which are prone to failure, and eliminates the need for time-consuming rebuilds after impact.

The rider is made from hollow lightweight material, all of which is wrapped in abrasion-resistant clothing for added durability. The materials used have been optimized to generate representative radar reflectivity, ensuring precise sensor characterization in ADAS evaluation scenarios.

The wheel rim is made from a durable plastic core encased in foam and a rubberized skin layer. This not only creates the tire profile but also eliminates any protruding hard points of the rim that could contact the test vehicle.

The Soft Bicycle 360 can travel in forward and backward directions. This enables the target to be quickly returned to its starting position in reverse to repeat the test, significantly improving test turnover.

Booth: 8246



Discover why you should visit the AB Dynamics booth – watch now!



## UNIVERSAL, SIMPLE TESTING OF ELECTRIC MOTORS

Haussmann Industrielektronik

The UPIXX00 universal test bench inverter from expo exhibitor Haussmann Industrielektronik is designed to test and validate newly developed electric motors simply and easily. In its various versions based on SiC semiconductors with specially developed driver control, outputs of up to 1,250V, 1,000A<sub>ms</sub> and 50kHz, as well as three-phase, five-phase and six-phase operation for induction machines, permanently excited

synchronous machines, externally excited synchronous machines and reluctance machines are possible.

An EESM module is also available as an extension to operate externally excited machines. The UPI can be extended by various external standalone modules and there is the option of a transient active short circuit module to activate an active short circuit on a specific angle, a load dump box LDB to simulate DC load dumping, and a line impedance

stabilization network to emulate on-board electrical system impedance. All products comply with ISO 21498 and MBN 11123 standards.

Together with its software partner, Weg/Weiser, Haussmann Industrielektronik enables developers to operate, analyze, optimize and automate electric machines. Meet the team at the expo, where they will be happy to help with visitors' projects.

Booth: 1350







# Fleets in sync

Dr Ingo Pletschen, product manager, cloud, Ipetronik, discusses the company's new cloud service for fleet management and validation

INTERVIEW BY CHARLOTTE IGGULDEN



in real time, uploading live data such as location, health status and supply voltage directly to the cloud. This frees up their logger to continue operating without interruption, while allowing them to view and analyze data from multiple loggers at the same time.

The ease of use translates directly into improved vehicle uptime. No more manual data uploads – the data is sent automatically to the cloud. IPEcloud's blob storage ensures unlimited capacity, so engineers never run out of space.

The potential for scalability is enormous. Everyone in a team can access the same real-time data, no matter where they are in the world – of course, depending on access rights. There's no longer any need for a measurement engineer inside the vehicle – tests can be managed remotely. Whether it's in development, testing or monitoring, IPEcloud2 provides instant access to critical data, enabling post-processing and live analysis across multiple departments.

We understand that security is crucial when handling sensitive test data. With IPEcloud2, data can be encrypted directly at the logger, ensuring that only authorized personnel can access it. Ipetronik uses the latest security standards to keep data safe.

### What are the key features of IPEcloud2?

IPEcloud's intuitive dashboard allows engineers to create custom workspaces to organize test scenarios. They can assign vehicles to specific projects and quickly access an overview of each fleet. The data is easily searchable, sortable and categorized by key properties, making it simple to find the information that is needed.

For electric vehicle tests, IPEcloud2 offers advanced monitoring capabilities. For example, the logger can automatically trigger data recording when a vehicle begins charging and stop recording once charging is complete. By gathering data from multiple vehicles over time, users can validate vehicle performance under different conditions, such as ambient temperature, charger types or battery status. After charging is complete, the data is uploaded to the cloud, where it can be remotely analyzed by the team.

The dashboard also offers an overview of logger status, available storage, supply voltage and logger configuration for each vehicle. With a click on the map view, engineers can locate vehicles, track their route and review measurement data as it uploads. ◀

The latest cloud platform supports data management for **100+** test vehicles

### What will Ipetronik be showcasing at Automotive Testing Expo Europe?

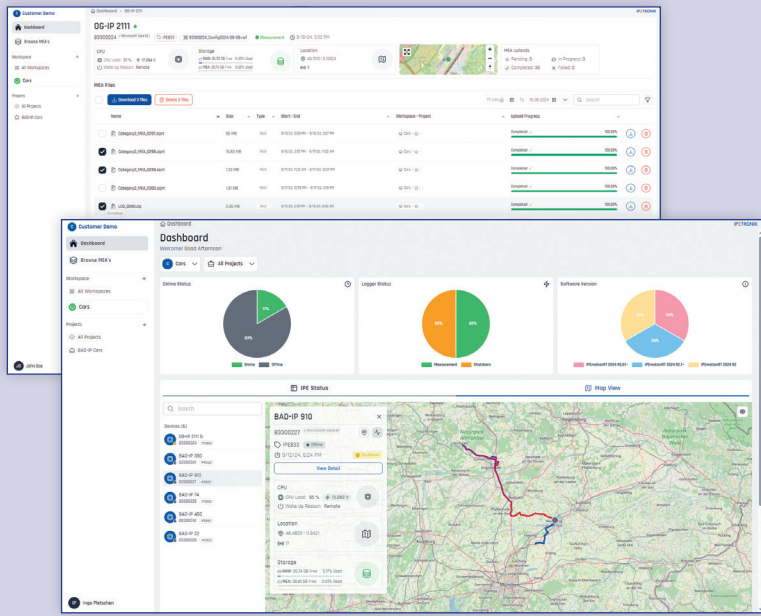
We will highlight IPEcloud2 – a cloud-based platform designed to revolutionize the way users manage and analyze data from their test vehicles. With IPEcloud2, engineers can view, organize and share real-time data collected from a fleet across departments worldwide. The platform is built for scalability, easily handling hundreds of vehicles, making it an essential tool for fleet managers and engineers alike.

### What are the benefits of Ipetronik's latest cloud technology, particularly for fleet management?

IPEcloud2, developed and managed entirely by Ipetronik, offers customers a secure, dedicated environment to manage their fleet data. This cloud-based service eliminates the need for developing in-house technology, allowing a team to focus on testing and development. With over 10 years of experience in cloud solutions, Ipetronik brings a new level of performance with its IPEcloud platform, powered by modern software and microservices.

Traditional dataloggers can only store a limited amount of information. With IPEcloud2, users can monitor a fleet

Flexible access rights management and a user-friendly interface help developers handle large volumes of test data



## Outdoor demonstrations

### Spotlight on e:fs TechHub

This year, **e:fs TechHub** will be conducting demonstrations of its LeanDRA smart driving robot, a cost-efficient, all-in-one solution for developing, prototyping and validating driving functions. Any production car can be transformed into a test vehicle within minutes.

Between Halls 8 and 10

### Features include:

- Plug and play: No need for proprietary software solutions. Simply use your existing hardware and software to develop automated driving functions;
- Just connect to LeanDRA via CAN or ethernet and control any aspect of the car using your software;
- Automatic recording and reporting of driver interaction and car behavior;
- Customization services tailored to users' needs.

Speak to **e:fs TechHub** on-site to experience other benefits of LeanDRA, including easy installation and adaptability and an in-built safety system to monitor car and system health.



## 4D DRONE MEASUREMENTS AND AI CALIBRATION IN SOLAR SIMULATION CHAMBERS

### BF Engineering

After years of research, BF Engineering says it has achieved a breakthrough in solar simulation technology. For the first time, 4D measurement of a solar simulation system has been successfully conducted using drone technology, improving the precision, speed and efficiency of system calibration. Previously, manual calibration of irradiation strength was slow and prone to errors. Now, AI-driven drones scan and map every detail in real time, capturing an ultra-precise 4D dataset. This futuristic approach, combined with advanced software updates, enables automated fine-tuning at a level never seen before and makes calibration faster and considerably more accurate. Customers save time and costs while achieving unmatched precision. With artificial intelligence continuously optimizing irradiation parameters, solar simulation systems can now self-correct, learn and adapt dynamically.

**Booth: 1618**



## NEW FOR 2025

## ADAS & AUTONOMOUS VEHICLE INTERNATIONAL AWARDS

Honoring the visionaries, companies and ideas that are transforming the future of mobility, the ADAS & Autonomous Vehicle International Awards are where innovation gets the recognition it deserves.

At a critical juncture for the automotive industry, these awards recognize groundbreaking achievements that are driving safer, smarter and more sustainable mobility solutions.

Building on the legacy of the ADAS & Autonomous Vehicle Technology Expo and Conference as well as the show's official publication, the awards highlight Europe's role as a global leader in automotive innovation. Stuttgart, a hub for automotive excellence, provides the ideal stage to showcase these achievements and inspire further progress in the innovations shaping the future of advanced driver assistance systems and autonomous vehicles.

The awards combine jury nominations with public voting via *ADAS & Autonomous Vehicle International* magazine, ensuring credibility while engaging the wider industry.

Scan the QR code to find out more:

### ADAS & Autonomous Vehicle INTERNATIONAL AWARDS '25



### Awards categories:

- Vehicle Deployment of the Year
- Safety Innovation of the Year
- Collaboration of the Year
- In-Cabin Innovation of the Year
- Engineering Team of the Year
- Consumer Awareness Campaign of the Year
- Disrupter of the Year
- Startup of the Year

### Judges:

- **Marc Amblard**, managing director, Orsay Consulting
- **Michelle Chaka**, vice president of safety and systems, Cruise
- **Marius Dupuis**, CEO, ASAM
- **Anthony James**, editor, AAVI
- **Sytze Kalisvaart**, senior project manager, TNO
- **Marc Pajon**, consultant, Taktech

Hall 9, May 21



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