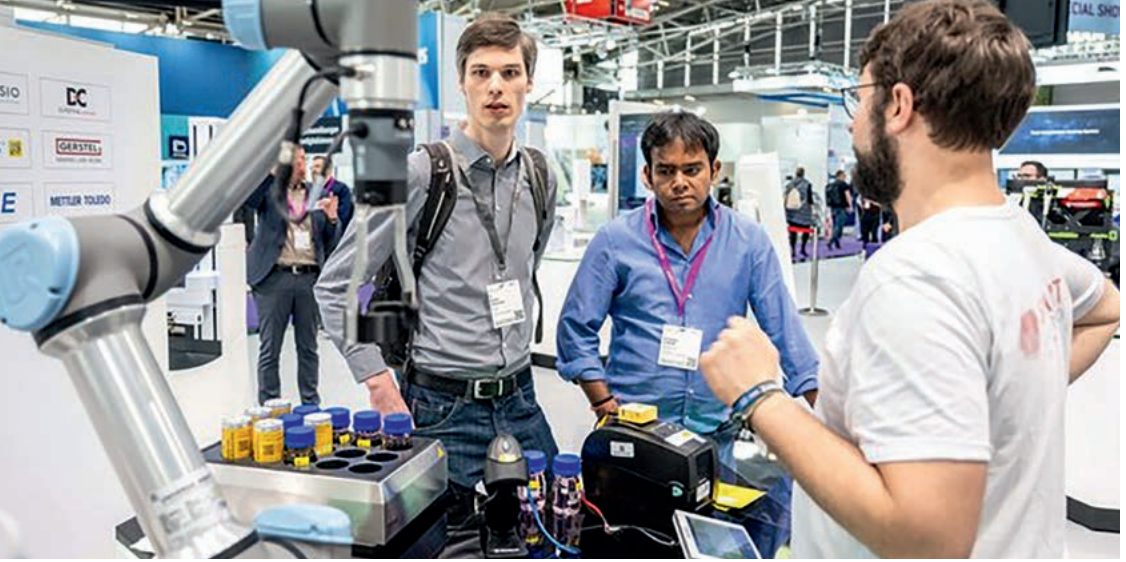

MESSE
MÜNCHEN
Special Show
Digital Transformation
Hall B2.331
analytica
March 24–27, 2026
analytica.de/en



Welcome to the Future of the Laboratory

analytica 2026, the World's Leading Trade Fair for Laboratory Technology, Analysis, Biotechnology and analytica conference provides the necessary guidance of upcoming transformation processes. The special show "Digital Transformation" invites you to experience the laboratory of the future today. It serves as a stage where software and hardware solutions from various manufacturers are seamlessly integrated to demonstrate intuitive digital workflows in the lab.

The focus is on three forward-looking topics:

- Robotics & Automation
- Connectivity & System Integration
- AI & Data Analytics

What to Expect

Five use cases, jointly realized with 18 partners, illustrating how these technologies interact in practice:

- Practical use cases that digitally map and optimize typical laboratory processes
- Hands-on demonstrations within modular workflow setups
- Interactive exhibits where you can experience devices and software in action.
- Integrated system landscapes that bring together robotics, sensors, AI, and data platforms.
- This special show demonstrates that digitalization in the laboratory is more than just a trend—it is the foundation for efficiency, reproducibility, and innovation. Join the modern technologies converge to redefine the laboratory.

Digital Flavor & Fragrances

Highest quality meets maximum safety

The path to excellent products begins with the safe handling of valuable resources.

High-quality flavors are stored in compliance with regulations in DÜPERTHAL safety cabinets. State-of-the-art sensor technology from DÜPERTHAL connect monitors temperatures, exhaust air function, and door status in accordance with the highest occupational safety requirements. In addition, stock levels and consumption are documented with DÜPERTHAL connect.

To ensure the highest quality in production, the density of the solvent is determined prior to extraction using a precision instrument from Mettler Toledo. This creates an objective basis for further processing. With the powerful 2mag magnetic stirrer, we ensure optimal and homogeneous mixing of solvent and raw material—fast, efficient, and controlled. To continuously monitor extraction progress, the density is measured again at regular intervals during the process. This guarantees consistently high product quality and maximum process control.

In the background, the laboratory execution system LABITUDE from SmartLab Solutions ensures seamless connectivity: all devices are intelligently networked, calculations are performed automatically, and complete documentation is carried out continuously in the background.

The result: a safe, efficient, and quality-driven workflow that brings occupational safety, quality management, and process control into perfect balance—thereby sustainably optimizing laboratory processes.

Integrated products of:

2mag magnetic motion	Magnetic Stirrer MIXdrive 15 with Control Unit, ultra flat, wear-free and suitable for 15 x 250mL beaker glasses
DÜPERTHAL	DÜPERTHAL CLASSIC line safety cabinet incl. sensor technology to monitor temperatures, exhaust air function and door status in accordance with the highest occupational safety requirements. Stock levels and consumption are documented with DÜPERTHAL connect.
METTLER TOLEDO	The D4 Density Meter combined with the InMotionPX One autosampler and LabX software offers a seamless solution for precise and automated density measurement.
SMARTLAB SOLUTIONS	LABITUDE laboratory execution system is a software solution to remote control and manage laboratory equipment.

Driven by the Sample

Automated temperature control processes

A combination of LAUDA UNIVERSA bath thermostats, amensio Sens-o-Spheres, and the Universal Robots UR7e cobot enables intelligent laboratory automation with direct core temperature measurement.

Fully integrated workflow for maximum efficiency

Through the interaction of intelligent sensing, high-precision temperature control, and automated handling, a fully integrated workflow is created:

- Direct core temperature measurement via amensio's Sens-o-Spheres
- Precise temperature control using LAUDA UNIVERSA circulating bath thermostats
- Automated sample handling by the Universal Robots UR7e cobot
- Convenient digital operation via the LAUDA Command Professional app
- Real-time monitoring through a secure live data connection to LAUDA.LIVE
- Reproducible results with minimal personnel effort
- This approach allows samples to transition between cooling and heating precisely according to their actual core temperature—a significant advantage over conventional methods that rely solely on bath temperature as a reference.

Process monitoring from anywhere

LAUDA digital solutions provide maximum flexibility and control. With LAUDA.LIVE and the LAUDA Command Professional app, users always have complete oversight and control of the automated temperature control process—anytime and from anywhere. Parameters can be adjusted remotely, process data is transmitted in real time, and critical thresholds can be continuously monitored, whether staff are in the lab or off-site.

Integrated products of:

amensio measure to move	Sens-o-Spheres—The Smallest Wireless Temperature Sensors for Smarter Process Development
LAUDA	LAUDA Command Professional app starts and configures LAUDA constant temperature equipment wirelessly from any mobile device or PC. LAUDA.LIVE Services enables remote access and live monitoring based on future-proof architecture, making AI-driven optimizations possible.
SMARTLAB SOLUTIONS	Full-service provider for lab digitalization & automation
UR | MiR TERADYNE Robotics JHK JUGARD+KÜNSTNER	The Universal Robot UR7e is a compact, easy-to-program cobot with a 7 kg payload and 850 mm reach, ideal for automating medium-duty tasks safely alongside humans.

SmartAQAlab

Digital assistance automation in drinking water analysis

SmartAQAlab offers the first end-to-end digital solution for drinking water analysis, in which both biological and chemical indicator parameters are recorded and made available centrally in the LIMS together with all relevant metadata.

Laboratory staff are not replaced by a fully automated system but are guided through all stages of the analysis by a consistently digitized, machine-supported process control system (assistance automation)—the iLIMS of INTEGRIS LIMS. The result: precise, consistent, and resource-saving workflows.

Thanks to its modular hardware and software architecture, the system can be flexibly adapted to the individual requirements of different laboratories—both in terms of functionality and sample throughput.

In the area of biological parameter determination, the selected process design enables largely automated execution. This significantly reduces the use of single-use products, lowers costs, and at the same time makes a significant contribution to sustainability.

The chemical parameters are determined using MLE's flow injection analysis (FIA) with an integrated autosampler. This method ensures reliable handling and automated sample transfer. New FIA methods in combination with an IoT-based software structure guarantee maximum efficiency, transparency, and future-proofing.

Integrated products of:

Dresden University of Technology	SmartLab Systems group (TU Dresden, Chair of Bioprocess Engineering): Focus on Industry 4.0, IoT, and Big Data in labs and biotechnology
INTEGRIS LIMS	iLIMS laboratory information and management system combines, monitors, and controls all laboratory processes from sample to reporting
MLE	The FIA system is used for automated photometric determination of ions in aqueous solutions, food extracts and soil eluates.
SMARTLAB SOLUTIONS	Full-service provider for lab digitalization & automation

Co-funded by the European Union

This project is co-financed from tax revenues on the basis of the budget adopted by the Saxon State Parliament.

Automated Sample Journey

More Time for Core Laboratory Tasks

Efficiency, safety, and traceability are crucial in modern laboratories. Every step, from unlocking the refrigerator to scanning labels to delivery to centrifuges or analysis stations, is recorded and can be evaluated using AI-supported analyses.

The process is started and all devices are orchestrated through Synefex automation. First, the sample to be processed is uniquely identified in the FLUICS CONNECT database and its storage location in the Liebherr cooling system is displayed. When the user logs into the system, the cooling system is unlocked, the sample is verified, and the user takes possession of it. The sample is processed automatically at the laboratory island, which consists of the iHEX system from SmartLab Solutions.

There, the cobot from Universal Robots loads the Sigma centrifuge in a structured manner. The Sigma centrifuge ensures maximum process reliability thanks to its innovative bucket levelling function, which enables reproducible loading and unloading positions. This is the only way the collaborative robot can insert the samples precisely, while parameters such as speed, runtime, and temperature are automatically taken from the order.

After centrifugation, the supernatant and pellet are automatically separated and weighed. The values are fed back into the FLUICS CONNECT database so that sample status and measurement data always remain traceable. The samples are then safely transported to their designated storage locations. Using artificial intelligence and large language models, all sample information, e.g., storage locations and measurement results, can be retrieved.

The integration of robotics, intelligent data management, and digital process control creates a fully automated process chain—from sample preparation to sample processing and measurement data collection to storage. This reduces sources of error, increases reproducibility and productivity, and gives laboratory staff valuable time for what matters most: precise analysis and scientific interpretation of the results.

Integrated products of:

FLUICS®	FLUICS CONNECT: Sample and inventory tracking at your fingertips
LIEBHERR	The laboratory fridge HMFvh provides ample space for temperature sensitive substances and complies with DIN 13277.
Synefex	SynConnect Gateway and SynConnect Gateway Touch provide secure, reliable connectivity for laboratory instruments and systems.
SIGMA	Refrigerated centrifuge Sigma 4-5KRL—the efficient solution for lab automation
UR | MiR TERADYNE Robotics J+K JUGARD+KÜNSTNER	The Universal Robot UR7e is a compact, easy-to-program cobot with a 7 kg payload and 850 mm reach, ideal for automating medium-duty tasks safely alongside humans.

(Lab Process Intelligence)^3

Integration x Monitoring x Insights

Labs often need to collect and process multiple data types from different sources to enable scientists to make informed decisions. Often, this is challenged by proprietary formats and disconnected systems, with scientists having to access multiple systems to see the results they need.

What if all analytical and operational data were processed and presented to individuals in the system they use regularly, in a format that makes insights easier and faster?

SAMPLES LIMS provides complete traceability from sample receipt to disposal. Powerful graphical workflows enable scientists to visualize and execute analytical processes.
Using state-of-the-art Metrohm technologies, samples can be rapidly identified and quantified with the highest precision. The use of automated systems incorporating Raman, OMNIS titration, and IC-MS minimizes walk-away time while delivering maximum flexibility and accuracy within the QC workflow.

Environmental data is monitored through essentim IoT sensors. Contextual insights enable additional understanding for in-line or at-line analysis.

Splashlake brings all the data together. Test requests are received from LIMS and sent to instruments. Workflow data is processed and results delivered back into LIMS and visually presented to the scientist. All raw data, results and metadata are managed according to FAIR data principles, securing use for AI/ML, with archival capabilities compliant to GLP/GCP/GMP and ISO/IEC 17025.

Combined with the intelligent iHEX system from Smartlab Solutions this creates an end-to-end, highly automated process: from sample receipt and analysis to reporting and data archival.

This close collaboration creates a laboratory ecosystem that elevates efficiency, data security, and flexibility through digitalization and automation.

Integrated products of:

essentim essential improvement.	sensor-driven, AI-based solutions for real-time monitoring and optimization of chemical and pharmaceutical processes
Metrohm	**OMNIS:** titrations with scalable modularity and contact-free reagent exchange **iRaman NxG:** Rapid, high-sensitivity measurements, flexible sampling, and extended spectral range (Duo configuration) **Metrohm IC:** Flexible ion chromatography with broad detector options and automation
SAMPLES	SAMPLES is the highly flexible LIMS and Lab Execution System by qualitype.
SMARTLAB SOLUTIONS	Full-service provider for lab digitalization & automation
((*)) splashlake	end-to-end platform for instrument connectivity, scientific data management, and visualization in line with FAIR principles

Established in 2007, more than 40 years of expertise and experience in the development, production and worldwide distribution of robust and durable magnetic stirrers and reaction blocks. "Made in Germany" Portfolio includes e.g. inductive magnetic stirrers, 1mL-10L, 100% maintenance-/wear-free, submersible, up to 200 °C, industrial stirrers up to 1.000L, warming-free cell culture stirrers for CO_2 incubators, ATEX-certified stirring systems.

Contact: Michael Fischer, CEO, michael.fischer@2mag.de

The Sens-o-Spheres from amensio GmbH are cherry pit-sized and fully self-sustained microsensors, designed for location-independent, non-invasive measurements, they follow the flow and deliver real-time data without disrupting your system.

With wireless recharging and the ability to run up to 24 sensors in parallel per system, Sens-o-Spheres accelerate and enhance process development like never before.

Contact: Dr. Tim Lauterbach, CTO, tim.lauterbach@amensio.de

As a German leader in quality and technology, DÜPERTHAL set standards of solutions for the storage of chemicals and hazmats. All solutions are perfectly tailored to your requirements. The new world of DÜPERTHAL connect also combines safety with digital convenience. As one of the leading providers of solutions in the field of hazmats storage, we combine high-quality safety cabinets with state-of-the-art sensor technology and the latest monitoring and inventory management.

- Safety cabinets acc. to the highest standards
- Monitoring of e.g. temperatures, fill levels, exhaust air by using sensor technology and intuitive software
- Inventory management software specialized for hazmats

Contact: Tobias Wingbermühle, Digital Solutions Lead, twe@dueperthal-connect.com

essentim offers a wireless sensor system to monitor biological processes directly at the culture vessel without affecting the usual workflows. This enables seamless recording of relevant climatic parameters in real time in order to detect errors immediately. In addition, work processes can be detected and automatically documented with the sample-related measurement data.

Contact: Matthias Schuh, Co-Founder & CEO, matthias.schuh@essentim.com

FLUICS revolutionizes laboratory inventory management by bridging the gap between physical samples and digital data. Their AI-ready platform enables research labs in academia and industry to transition from chaotic, manual tracking to structured, secure, and dynamic digital workflows.

By integrating seamlessly into daily lab routines, FLUICS empowers scientists to ensure data integrity, optimize storage efficiency, and prevent valuable sample loss. This commitment to "plug & play" digitalization transforms inventory data into a strategic asset, fostering collaboration, sustainability, and advanced analytics without disrupting the scientific process.

Contact: Dr. Claudio Rolli, Founder & CEO, rolli@fluics.com

As an experienced software company, INTEGRIS LIMS GmbH focuses on the development and implementation of state-of-the-art solutions tailored to the specific requirements of contract laboratories, company laboratories and research facilities. Our laboratory information and management system, iLIMS, stands for exceptional flexibility and enables individual adaptation to your laboratory processes. The practice-oriented support of our customers is of particular concern to us, and we are proud to actively accompany you on your way to complete laboratory digitization.

Contact: Robert Koschitzki, Managing Director, vertrieb@ilims.de

We are LAUDA—the world leader in precise temperatures. Our constant temperature equipment and systems are at the heart of important applications, contributing to a better future. As a full-service provider, we guarantee the optimum temperature in research, production, and quality control. We are the trusted partner for electromobility, hydrogen, chemical, pharmaceutical/biotech, semiconductor, and medical industries. For almost 70 years we have been inspiring our customers with our competent consulting and innovative solutions, anew every day—globally.

Contact: Steffen Köhler, Portfolio Manager, steffen.koehler@lauda.de

Liebherr-Hausgeraete GmbH develops and produces a wide range of refrigerators and freezers for domestic and professional use. Thanks to innovative freshness technologies and high-quality materials, the consumer appliances of the premium manufacturer impress with their energy efficiency, elegant design and long service life. In professional use, refrigerators and freezers from Liebherr stand for maximum safety with intelligent features and exceptional quality.

Contact: Christian Brenner, Product Owner IoT Devices, christian.brenner@liebherr.com

Metrohm is a leading global manufacturer of high-precision instruments for laboratory and process analysis. The company was founded in 1943 by Bertold Suhner in Herisau, Switzerland, where its headquarters have remained to this day. Metrohm offers a wide range of analytical technologies, including titration, ion chromatography, near-infrared, and Raman spectroscopy. The company distributes its products and services through subsidiaries and exclusive distributors in over 80 countries. Since 1982, Metrohm has been owned by the non-profit Metrohm Foundation, which supports charitable, philanthropic, and cultural projects and ensures the company's independence.

Contact: Daniel Hahn, Product Manager Automation, daniel.hahn@metrohm.de

METTLER TOLEDO is a global leader in precision instruments and weighing solutions, serving industries such as pharmaceuticals, food production, chemicals, and manufacturing. Known for innovation, quality, and reliability, the company offers a wide range of laboratory products including laboratory balances, analytical instruments and liquid handling solutions. With a focus on accuracy and efficiency, METTLER TOLEDO helps businesses optimize processes, ensure compliance, and improve productivity worldwide. Their commitment to excellent customer support and technological advancement makes them a trusted partner across multiple sectors.

Contact: Karina Schultheiss, Application Support Specialist Laboratory
karina.schultheiss@mt.com

MLE GmbH Dresden has over 30 years of experience in laboratory and analytical measurement technology. We specialize in developing, designing, and manufacturing laboratory instruments and automatic analysers for flow injection analysis. Our services include manufacturing OEM assemblies and developing customized products from prototyping to series production.

Contact: Hans-Peter Köhler, Managing Director, koehler@mle-dresden.de

Our heart beats for the lab. For 25 years, qualitype GmbH has been the software partner for digital laboratory processes. Users benefit from our expertise and experience in laboratory management and quality monitoring, as well as in software development for laboratory instruments and medical devices. Our latest development— and absolute highlight—is the award-winning laboratory management solution SAMPLES. With state-of-the-art features and interfaces, this industry-agnostic LIMS, ELN, and LES delivers maximum performance and connectivity across the entire laboratory landscape.

Contact: Dr. Isabell Hilger, Product Owner SAMPLES, i.hilger@qualitype.de

Sigma Laborzentrifugen GmbH is a worldwide leading manufacturer of laboratory centrifuges. Sigma offers a comprehensive range of laboratory centrifuges, fixed-angle and swing-out rotors and accessories. All products meet high standards of reliability and safety. The application areas include pharmaceutical research, biotechnology, medical analytics and many other.

The corporate culture of the 50-year-old family business is based on flat organisational structures with short communication channels and sustainable business operations. Sigma has the right solution for every specific customer need: Compact small centrifuges, automated or floor-standing centrifuges and medical devices.

Contact: Dr. Nadine Tiller, Product Management, n.tiller@sigma-zentrifugen.de

SmartLab Solutions designs and delivers end-to-end solutions for laboratory digitalization and automation. We advise you from the first process analysis to the final implementation all the way to technical training.

SmartLab Solutions' hardware and software products empower users to streamline workflows, enhance efficiency, and accelerate the path to breakthrough insights.

We enable the digital transformation of laboratories through vendor-independent process automation—whether in routine, contract, or R&D environments.

Contact: Ulrike Gerecke, Business Development,
ulrike.gerecke@smartlab-solutions.de

Splashlake is the refreshing approach to your scientific data journey. With Splashlake, unlocking the power of your scientific data becomes easy! Our cutting-edge solution is designed to support the entire instrument connectivity, data management and visualization life cycle to harness the full potential of your valuable data. Experience data accessibility, regulatory compliance, and unparalleled value generation while staying true to FAIR (Findable, Accessible, Interoperable, Reusable) principles. Dive into a new era of scientific data management with Splashlake today!

Contact: Nicola Gardner, Head of Marketing, nicola.gardner@splashlake.com

Synefex empowers innovators by bridging laboratory operations and IT. Founded in 2019 in Germany, it specializes in reliable laboratory data integration, lab informatics, and DevOps for the biotech, pharmaceutical, chemical, and food industries. Its strength lies in combining deep laboratory domain knowledge with modern IT and cloud expertise. Synefex helps organizations make their data FAIR, future-ready, and operationally efficient across regulated and non-regulated environments, on-premises or in the cloud.

Contact: Maximilian Wiens, Managing Director, maximilian.wiens@synefex.de

Universal Robots and Mobile Industrial Robots (MiR) are part of the Teradyne Robotics group and are recognized worldwide for flexible, safe, and efficient automation. With collaborative robot arms and autonomous mobile robots, we help companies of all sizes optimize production and logistics processes, reduce costs, and improve quality. Our solutions are quick to deploy, scalable, and ideal for modern laboratory, production, and intralogistics environments.

Contact: Dominik Drobina, Regional Sales, dodr@universal-robots.com

Use-case presentation
Special Show Digital Transformation, Booth: B2.331

Attend our presentations at the special show free of charge three times a day. Take advantage of this opportunity for personal exchange and talk directly with the manufacturers afterwards. Discover new perspectives.

Date	Time	Use-case
Tuesday, March 24	11:00–12:00	Presentation of all Use-cases
	13:00–14:00	Digital Flavor & Fragrances
	15:00–16:00	SmartAQAlab
Wednesday, March 25	11:00–12:00	Driven by the Sample
	13:00–14:00	(Lab Process Intelligence)³
	15:00–16:00	Digital Flavor & Fragrances
Thursday, March 26	11:00–12:00	SmartAQAlab
	13:00–14:00	Automated Sample Journey
	15:00–16:00	(Lab Process Intelligence)³
Friday, March 27	11:00–12:00	Automated Sample Journey
	13:00–14:00	Driven by the Sample
	15:00–16:00	Spotlight on Job Day

Cooperation partner: