
SUSTAINABILITY IS MEASURABLE

Sustainability report of the Kistler Group



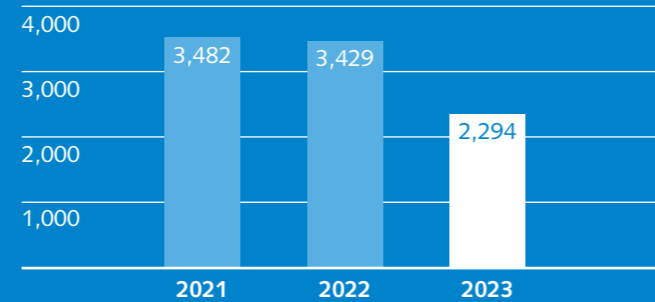
CO₂ emissions saved in 2023 as compared to 2022

in percent

33.1

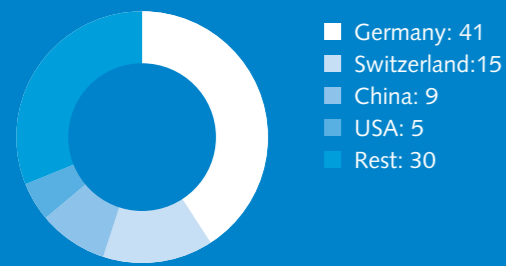
Total CO₂ emissions of the Kistler Group

in metric tons



CO₂ emissions by countries

in percent



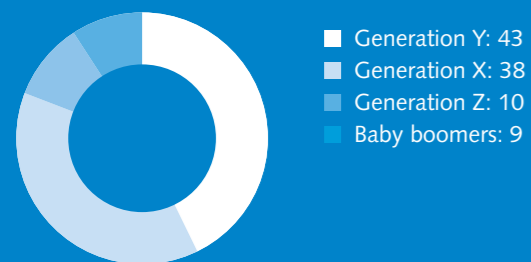
CO₂ emissions compensated via TravelPerk

in thousands of kg

341

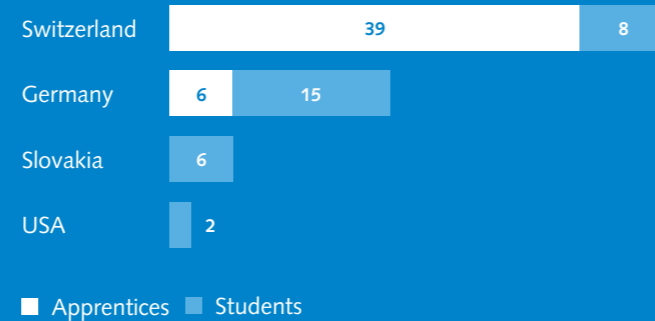
Kistler employees by age groups

in percent



Apprentices and students at Kistler

Number of persons



Forest Protection Project, Oberallmeind Corporation, Canton of Schwyz (Switzerland)
By increasing the wood stock in the project perimeter from 281 to 300 m³/ha, additional CO₂ is extracted from the air and stored in the wood. Adapted forest management will ensure that the forest's function is fulfilled sustainably.

EDITORIAL



Dear Readers



It's no secret: the only world we have is this one. We all share the responsibility for making it a place worth living in – for future generations as well as our own. As an entrepreneur, I consider it my duty to lead the way – by setting an example, and as a trailblazer. Sustainable business management is not just a fad, but a necessity that is deeply embedded in our business model. Long-term success depends on guaranteeing both value creation and welfare.

Since 1957, Kistler has been optimizing the combustion engine with cutting-edge measurement technology. Our goal is clear: we aim to analyze and optimize processes so as to save energy and reduce greenhouse gas emissions. Outstanding examples of this include our electromechanical joining systems – which save as much as 93 percent of energy compared to conventional products. Thanks to them, we play a major part in protecting our planet.

In this era of heightened awareness about sustainability, our work is becoming increasingly important. Sustainability has to be a real-life practice, not just a promise.

We are guided by international agreements such as the European Green Deal and the 17 Sustainable Development Goals of the United Nations, which we implement as specific elements of our corporate strategy in order to achieve our goals.

One core aspect of our sustainability strategy is investing in our employees, who are our most valuable asset. It is not enough to recruit qualified staff; we must retain and continuously develop them in our company on a long-term basis. This is why we have set up an in-house talent management system with numerous programs for continued training.

Our motto is: sustainability is measurable! We can only improve something if we can measure it. Our nomination for the 2025 German Sustainability Award shows that we are on the right track.

Rolf Sonderegger
Owner of the Kistler Group

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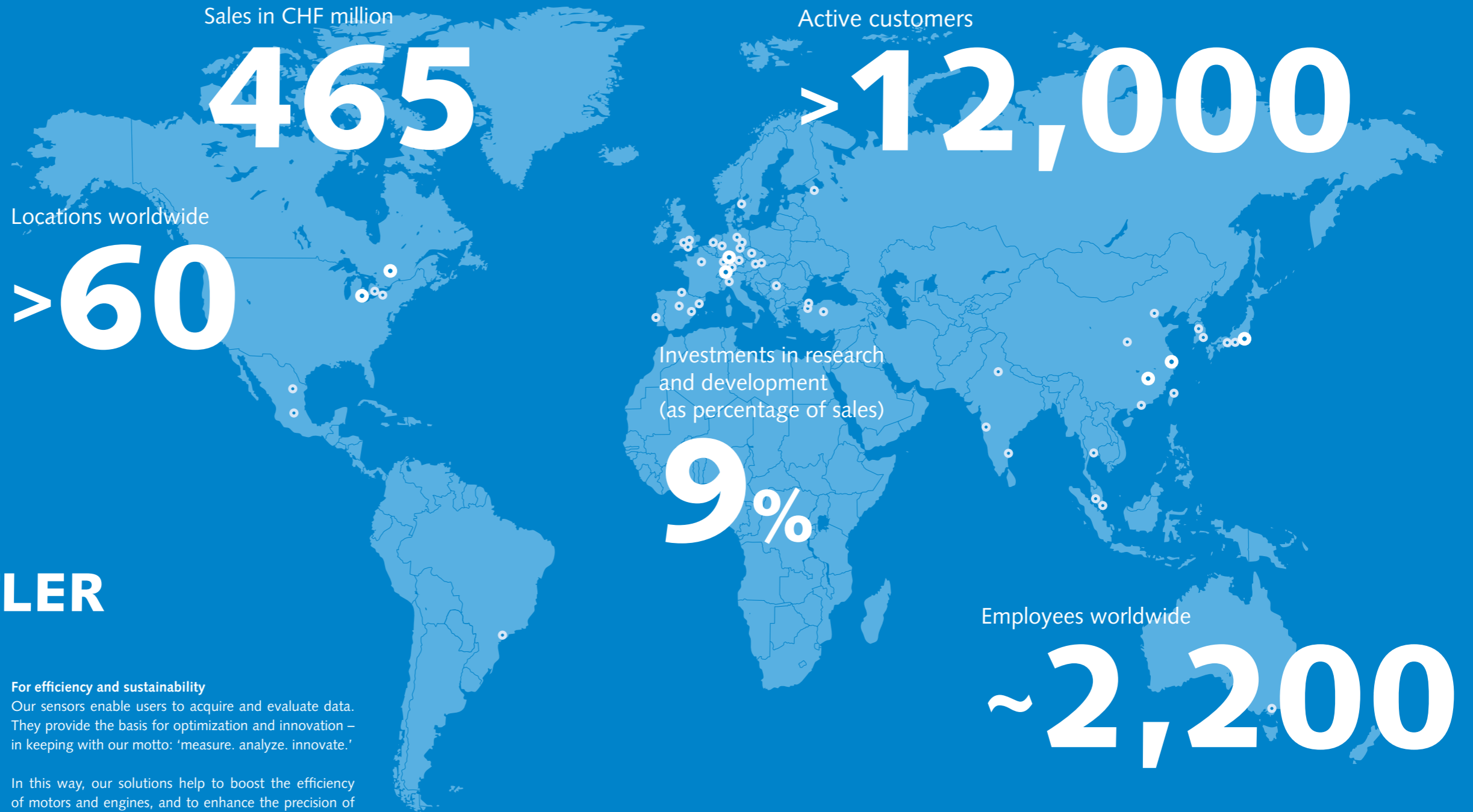
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ABOUT KISTLER

Kistler, an owner-managed Swiss company, is a global market leader in dynamic measurement technology to record pressure, force, torque and acceleration. Cutting-edge technologies provide the basis for Kistler's modular solutions. Customers in industry and scientific research benefit from Kistler's experience as a development partner, enabling them to optimize their products and processes throughout the measuring chain so as to secure sustainable competitive edge.

Diversity is a strength

Our solutions and sensors are used in many industries, ranging from the aerospace and medtech sectors to transportation, traffic and infrastructure. Thanks to our unique sensor technology, we shape future innovations in automotive development, industrial automation and many emerging sectors. Kistler plays a key part in the ongoing development of today's megatrends such as electrified drive technology, autonomous driving, emission reduction and Industry 4.0.

For efficiency and sustainability

Our sensors enable users to acquire and evaluate data. They provide the basis for optimization and innovation – in keeping with our motto: 'measure. analyze. innovate.'

In this way, our solutions help to boost the efficiency of motors and engines, and to enhance the precision of machines. At the same time, we help our customers to reduce their consumption of resources and materials, and to cut their operating costs.

Maintaining independence through success

Ever since it was founded in 1959, the Kistler Group has been an owner-managed family company. Rolf, Conrad and Christof Sonderegger manage the Group – carrying on the tradition of their father, Hans-Conrad Sonderegger – and they attach great importance to independence. Kistler is therefore 100 percent self-financed and is not exchange-listed. To guarantee compliance with corporate governance principles, the majority of the Board of Directors consists of external experts – specifically in order to encourage new perspectives and strategic foresight.

- Main locations of the Kistler Group
- Additional production, sales and technology locations

All figures as at 31 December 2023

CO₂-NEUTRAL BY 2030



Franziska Kunz is Head of Production Center Meerane (DE) and Sustainability & CSR Manager of the Kistler Group.

Our efforts to achieve sustainability focus on reducing greenhouse gas as the top priority. Kistler has set itself specific targets for this purpose. How are these to be achieved? And what else is Kistler doing in terms of sustainability? Franziska Kunz, our Sustainability & CSR Manager, explains the answers in this interview.

Ms. Kunz: what are the key aspects of sustainability at Kistler?

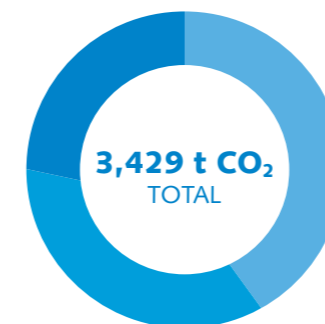
Kistler aligns itself with the established ESG categories: Environment, Social, and Governance. We undertook a materiality assessment to define twelve sustainability topics that Kistler is able to influence. They can be linked to the United Nations Sustainable Development Goals. We record key indicators and define measures in these areas. Our main focus is on the Environment category, because that's where we have the most leverage.

Are there specific targets for this?

Yes, we have set ourselves specific targets for reducing CO₂. By 2025, we are aiming for CO₂-neutral production at our six largest German production sites. This relates to emission categories (Scopes) 1 and 2 as defined in the Greenhouse Gas Protocol. And by 2025, worldwide CO₂ emissions should also be reduced by 50 percent. We intend to achieve CO₂ neutrality for the entire Kistler Group by 2030.

Emission drivers in 2022

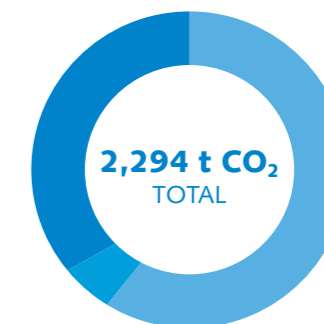
in percent



- Mobile combustion (petrol, diesel): 40% (1,372 t CO₂)
- Electricity: 38.5% (1,320 t CO₂)
- Rest: 21.5% (737 t CO₂)

Emission drivers in 2023

in percent



- Mobile combustion (petrol, diesel): 61% (1,397 t CO₂)
- Electricity: 6% (134 t CO₂)
- Rest: 33% (763 t CO₂)

How are these targets to be achieved, and where does Kistler stand at present?

We're primarily targeting mobility and electricity, as they are major sources of CO₂ emissions. To give you some examples: we're doing this by switching over to electricity from renewable sources, increasing the use of e-mobility, improving resource and energy efficiency – and also by using CO₂ compensation to offset emissions that can't be avoided for the time being. Thanks to these measures, we were able to reduce CO₂ emissions by 33.1 percent in 2023 as compared to 2022.

What is Kistler doing as regards social responsibility and corporate governance?

Kistler wants to offer its employees a modern working environment, for instance by providing continued training, taking health promotion measures and offering flexible working models. As an internationally active company with a future-oriented mindset, we are also passionate about diversity and equality. We offer various programs and learning modules that are specifically intended to promote intercultural exchange and awareness among our employees. At the local level, Kistler is also strongly engaged in charitable projects and institutions. And, of course, we have a Code of Conduct in place that defines the key principles for good corporate governance.

Where do you still see potential for optimization?

We took part in the Carbon Disclosure Project (CDP) for the second time in 2023. Once every year, this not-for-profit charity uses standardized questionnaires to record data about companies' CO₂ emissions and climate risks as well as their reduction targets and strategies, which it then uses to calculate a

"Through our initiatives, we support the 17 Sustainable Development Goals of the United Nations, with a particular focus on reducing emissions and protecting the climate. Our success as a company should go hand-in-hand with positive impacts on the environment and society."

Franziska Kunz

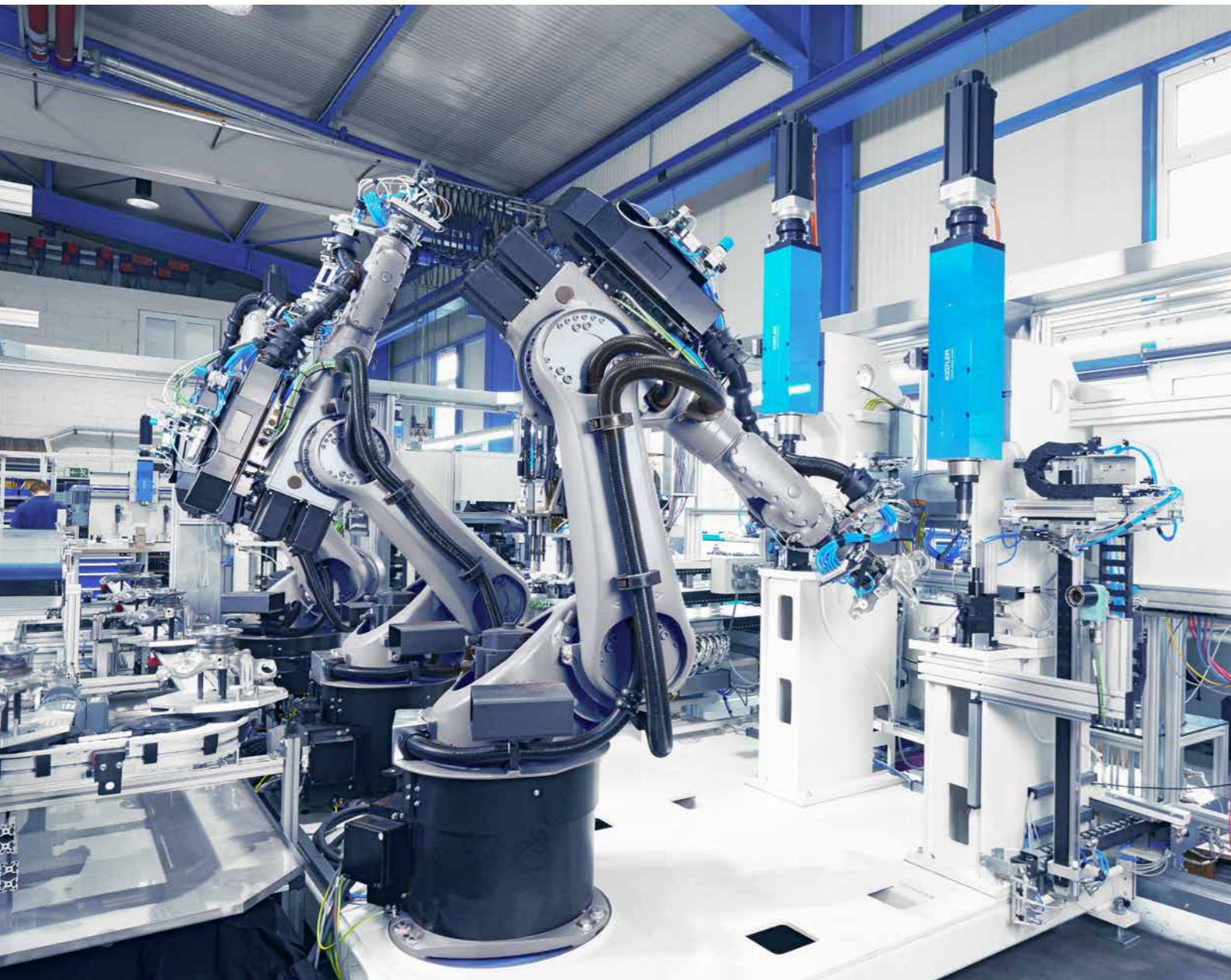
rating. In 2023, we reached Level C: 'Awareness'. That's certainly a major improvement year-on-year, but it also showed that we still have room to become even better – especially in terms of governance and initiatives to reduce emissions.

Which issues will you be tackling next?

We're now in the process of taking a closer look at emissions in Scope 3 – in other words, all emissions that are generated indirectly along the value chain. To some extent, there's an overlap here with the German Act on Corporate Due Diligence Obligations in Supply Chains (SCA). We're also working intensively to implement this legislation. As well as that, we're moving ahead with expanding our ISO certifications for our locations across the globe – first and foremost for environmental and energy management, of course. By the end of January 2025, certification of our Winterthur site to ISO standards 14001 and 45001 will be completed. Last but not least, we're also analyzing production processes at Kistler to continue developing them in line with the goals of resource efficiency and the circular economy.

ENERGY AND EFFICIENCY ADVANTAGES THANKS TO ELECTROMECHANICAL JOINING SYSTEMS

Electromechanical joining systems from Kistler are significantly more energy-efficient than pneumatic and hydraulic systems. According to a study by the Ostfalia University of Applied Sciences, energy savings of as much as 93 percent can be achieved with these systems. This also means that CO₂ emissions can be cut by up to 2.6 metric tons per year and system.



CO₂ emissions saved per year and system

in metric tons

2.6

Energy savings

in percent

93

Electromechanical joining systems in the market

in thousands of units

~30

“Although we do make use of pneumohydraulic and hydraulic drives as well, the trend is very clearly moving towards electromechanical technology.”

Hans-Werner Fisch, CEO of BTM Europe

Industrial production is a major source of greenhouse gas emissions, not least because of its high energy consumption. However, growing numbers of manufacturers want to play their part in protecting the environment, while there are increasing demands from customers, suppliers, end consumers – and politicians as well – for sustainable, future-proof production processes and careful use of resources throughout the value chain. This means that manufacturers are dependent on machines that operate efficiently and save energy while maintaining the same level of quality. A scientific study has shown that Kistler’s electromechanical joining technologies can make a valuable contribution here. Joining systems are used in industries such as the automotive and supplier sectors to permanently join components by press-fitting, riveting, caulking or clinching.

Lower CO₂ emissions

In connection with the commissioned study (published in September 2024), scientists at the Ostfalia University of Applied Sciences investigated the energy consumption of three joining systems with different drive technologies: hydraulic, pneumatic, and electromechanical. The results show that the electromechanical version operates most efficiently in overall terms. It saves up to 6 times more energy than the hydraulic alternative. The pneumatic joining system has the highest energy consumption. Depending on the efficiency of the compressed air generation, the other two systems require between 8 and 20 times as much energy. Assuming an operating time of 8 hours on 260 working days per year, Kistler’s electromechanical systems can save up to 2.6 metric tons of CO₂ emissions and 93 percent of energy per year and system.

Alexander Müller, Head of Kistler’s Business Center NC Joining Systems, views the outcome as positive: “We are very pleased with the results of the study, given that they show we offer future-proof and sustainable solutions. The ecological footprint is becoming an increasingly important parameter in production. That makes it all the more important for us to offer our customers joining modules and solutions that combine cost-effectiveness with sustainability and efficiency.”

Greater flexibility and lower operating costs

One company that opts for electromechanical joining systems from Kistler is BTM (Europe) Blechverbindungstechnik GmbH, one of the world’s leading experts in mechanical fastening technology. Two joining modules with integrated sensor technology and process monitoring are used in a plant to manufacture aluminum shipping boxes that then undergo further processing to turn them into trolleys. Hans-Werner Fisch, CEO of BTM Europe, sees the system as offering a range of advantages: “Although we do make use of pneumohydraulic and hydraulic drives as well, the trend is very clearly moving towards electromechanical technology. That’s simply because it offers far greater variability – plus control options, lower maintenance effort and higher energy efficiency.” As well as energy efficiency, Kistler’s electromechanical joining systems also require less maintenance effort than hydraulic and pneumatic systems, and they achieve better utilization of system capacity. And as another plus, manufacturers benefit from lower total cost of ownership (TCO).



PROTECTING SENSITIVE INFRASTRUCTURE

Bridges are sensitive components of the traffic infrastructure, and their lifetimes are limited. Traffic volumes are soaring all over the world and at the same time many bridge structures are in the process of aging – two factors that combine to present a challenge to safety.

SHM solutions from Kistler

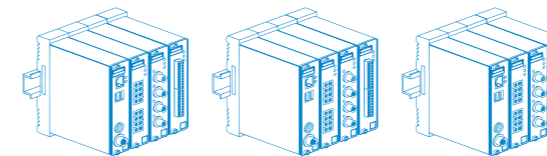
Structural data for users



Kistler SHM cloud software



Data acquisition



With the help of the corresponding SHM software platform, users can merge data from all measuring points along the bridge in the cloud – no matter whether the data comes from a Weigh In Motion sensor under the road surface or a sensor inside the bridge. Thanks to this solution, bridge operators can accurately determine various physical parameters so they can draw conclusions about their bridge's structural behavior. In detail, these are:

- **Loads acting on the bridge:** traffic loads, gravitational forces, wind loads, seismic forces
- **Structural reaction:** acceleration, strain, displacement, inclination
- **Bridge damage:** corrosion, cracking, loss of rigidity or strength
- **Environmental data:** temperature, air humidity, precipitation

This approach yields decisive advantages such as extension of the bridge's remaining useful life, continuous effective condition assessment, and early detection of damage.

An application with potential for the future

Structural Health Monitoring solutions from Kistler are already in successful operation all over the world – and the trend is upward. What's more, bridge monitoring is only the beginning: the use of SHM has already been trialed with success in the rail sector and for monitoring wind turbines. Generally speaking, Structural Health Monitoring could be used to monitor any critical infrastructure – to monitor power plants, for example, even including nuclear facilities.

'SHM goes Virtual Reality' – that could soon come true! For two years, students at the Eastern Switzerland University of Applied Sciences (OST) experimented on a bridge instrumented with Kistler measurement technology. At the beginning of June 2024, they presented their results to around 300 guests. Two awards – for Best Project, chosen by the

lecturers, and Best Performance, chosen by the audience at the event – both went to the Kistler team for the bridge monitoring software they developed.

The structural integrity of a bridge deteriorates naturally over time due to fatigue, cracking and corrosion. Increasing traffic loads and weather conditions place additional stress on the structures. In particular, bridges that were built over 50 years ago and are nearing the end of their service life often exhibit critical structural deficiencies. These problems even affect many newer bridges that have not been adequately maintained. This can lead to drastic measures such as closures or traffic restrictions. Maintaining bridges to extend their lifespan and ensure safety is therefore a top priority for all operators.

Structural Health Monitoring extends a bridge's useful lifetime

However, there are limits to what regular inspections and assumption-based structural models can achieve – and this is precisely where sensor-based Structural Health Monitoring for bridges comes into play. Kistler systems are the solution of choice not only for bridge monitoring but also for bridge protection: they supply reliable data on the actual loads acting on bridges – so maintenance measures can be planned accurately, and overloaded vehicles can be detected even before they enter the bridge in order to restrict access. With this technology, any vehicle that violates the legal limits for permissible total weight, axle load and/or speed can be identified and penalized as appropriate.

For decades, we have been instrumenting and monitoring bridge structures and roads with a varied range of sensor technology. But now, Kistler is taking another major step forward with the development of Structural Health Monitoring, or SHM for short.



Learn more about this topic in our video.

KISTLER SENSORS: SUPPORTING THE GREEN TRANSFORMATION OF THE SHIPPING INDUSTRY

Container ships, tankers and freighters are essential for international cargo handling – but they also cause around three percent of global CO₂ emissions. Sensors from Kistler in marine engines help to reduce these emissions significantly – and with the shift towards alternative fuels, they are becoming even more important.

Around 90 percent of all goods are transported by sea. The thousands of ships that traverse the world's oceans every day are responsible for around three percent of global CO₂ emissions. Propulsion and electricity are provided by impressive engines – up to 16 meters high on the largest cargo ships, with power of over 110,000 hp. These engines consume as much as 330,000 liters of heavy fuel oil or marine diesel oil per day when running at full load around the clock. Measurement technology from Kistler ensures greater efficiency and helps to reduce fuel consumption by 1.8 percent, or around 6,000 liters per day. This also reduces climate-damaging CO₂ emissions by around 20 metric tons per engine per day.

10,000 ships equipped with Kistler sensors

Over recent years, we have been able to continuously expand our market share in dynamic measurement technology for the shipping industry. Throughout the world, around 10,000 ships are already equipped with Kistler sensors. They help these vessels to save around 20 million metric tons of CO₂ emissions each year. The sensors installed in the cylinders monitor the engines and ensure that the engine control system can equalize the pressure between the cylinders. This makes it possible to optimize fuel consumption.

Shipping has to become carbon-neutral

Our measurement technology is already playing a significant part in reducing CO₂. Its importance will increase going forward, because shipping is on the verge of a very radical change. The 175 member states of the International Maritime Organization (the UN's shipping organization) have reached agreement on stricter climate protection targets, and they aim to

make shipping on the world's oceans climate-neutral "by 2050 or shortly thereafter". Given that ships have a lifespan of 20 to 30 years, this is a very short period. Although ships with alternative propulsion systems such as methanol or liquefied natural gas are already in use, the majority are still powered by oil.

Sensors make it possible to switch between fuels

Miika Jussila, Head of Business Center OEM at Kistler, says that we still have no clear idea as to which fuels will prevail in the future. Regardless of this, Kistler sensors are set to play an even more critical role than they already do today. That's because they go beyond optimizing fuel consumption: they also make it possible to develop engines that can switch between different fuels. "This flexibility is going to become more important, because shipping is likely to have an ecosystem with different fuels in the coming years," Miika Jussila points out. Dual-fuel engines are already available today: they can be switched from conventional liquid fuels to liquefied natural gas if required. The combustion processes inside these engines need to be monitored and regulated so they can deliver maximum performance.



The latest sensors contain a crystal we grow ourselves

In recent years, research and development in the shipping industry has focused on operating sensors safely and reliably with different fuels over long periods. Sensors from Kistler can be operated for years without maintenance, and they offer an excellent cost-benefit ratio.

At the heart of the latest generation of sensors used in marine engines is a special crystal from Kistler. Crystal ingots are grown over several weeks according to a secret recipe. After the ingots are cut into disks, they undergo further processing to create high-precision sensors. Compared to conventional quartz crystals, these piezoelectric crystals offer greater temperature stability. They can withstand the pressure, temperatures and vibrations present in engines for years, and they also generate significantly more electrical charge than other crystals or quartzes.



Learn more about this topic in our video.

RENEWABLE ENERGIES PAVE THE WAY TO THE FUTURE

How much energy is consumed? This is not the only question that arises with regard to energy. It's also relevant to ask how the energy is generated, and with what resources. Renewable energy sources play a key part in making our activities as environment-compatible as possible. The optimal solution is to produce our own electricity wherever that option is available.

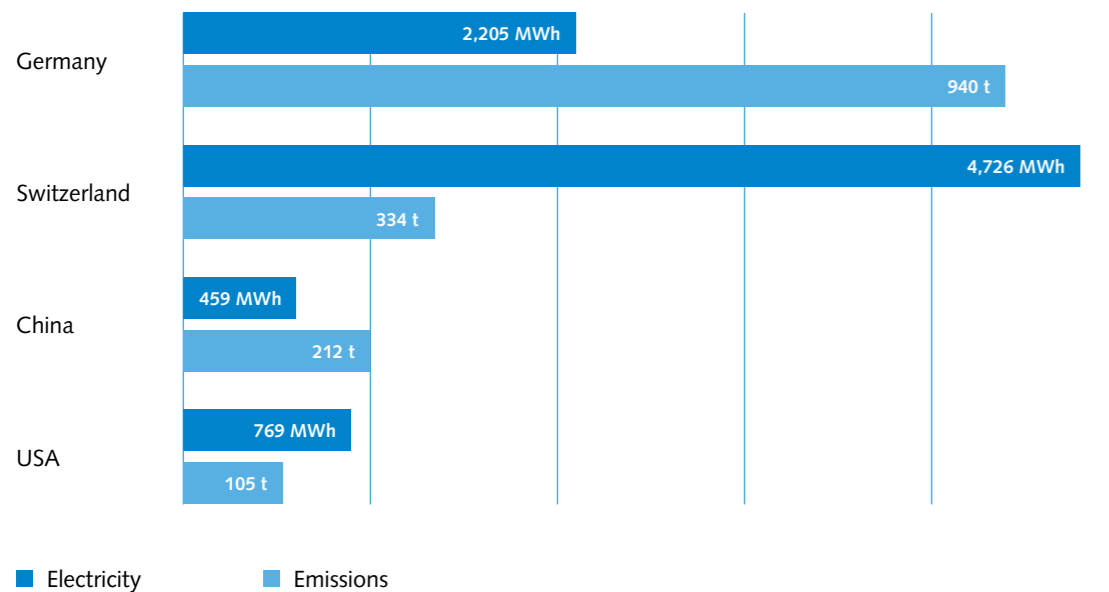
For the Kistler Group, one of the main keys to sustainability is the use of renewable energies. Electricity accounts for 50 percent of our entire energy requirement, while heat accounts for 19 percent. Regardless of the energy source, almost 70 percent of our total CO₂ emissions originate from four countries: Germany (41%), Switzerland (15%), China (9%) and the USA (5%).

By 2030, we aim to achieve CO₂-neutrality for the entire Kistler Group as regards direct release of climate-damaging gases in our own company (Scope 1), and indirect release of climate-damaging gases by energy providers (Scope 2). Energy is one area where we have effective leverage to achieve these savings

targets we have set. In 2021 and 2022, energy accounted for over one third of Kistler's entire carbon footprint.

We accord the highest priority to promoting the use of alternative energies. All six of our production sites in Germany have already been using electricity taken exclusively from renewable sources since 2022. Our other German sites completed the switch to electricity from renewable sources by the end of 2023. Green electricity certificates have been obtained for them, and also for our branches in Switzerland, China, Japan, the USA, and Slovakia.

Electricity and emissions in comparison

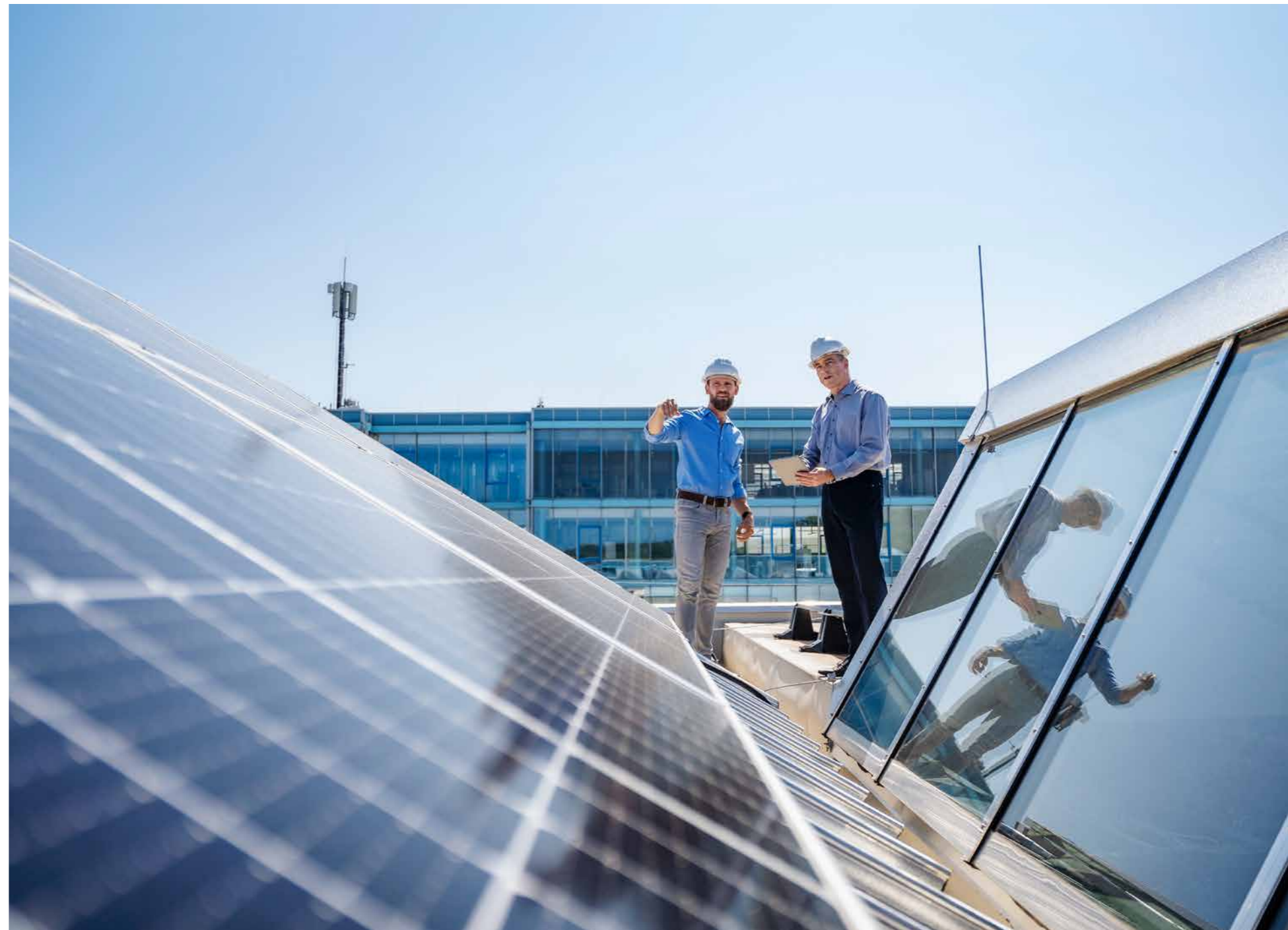


Production of our own electricity is another important step along the Kistler Group's path to a sustainable energy future. For this purpose, we are examining selected sites to determine whether they meet the conditions for profitable and efficient operation of a photovoltaic system.

A solution of this sort has already been implemented successfully on the roof of Kistler Straubenhardt GmbH in Germany. A photovoltaic system with output of 57 kWp was able to start operating here in mid-February 2023. This makes it possible to generate around 60,000 kWh per year on average – and this result was almost achieved in the first year of operation, when 54,600 kWh was produced (due to the later start).

This means that the site is able to cover around 40 percent of its annual electricity demand from its own generation, and can also feed almost 18,000 kWh into the grid. The system in Straubenhardt covers around one quarter of the roof area, so there is still potential for expansion.

All the connections and supply lines were designed so that the photovoltaic system can grow with the building if it is extended. According to an analysis that has already been completed, up to 10 percent of the energy demand in Winterthur (CH) could be met by a photovoltaic system. Evaluation of this investment project and other initiatives is still in progress.





MODERNIZING BUILDINGS AND PROCESSES

Kistler is making targeted investments to continuously improve energy and resource efficiency. Infrastructure upgrades and digitalization measures helped our company to make further advances in sustainability during 2023.

Kistler Bratislava: relocating to the country's greenest building

In June 2023, Kistler relocated its Bratislava (SK) site to premises in the new 'Einpark' commercial building. 'Einpark' is the first building in Slovakia to be awarded the LEED Platinum Certificate – so it is likely the country's greenest building, and one of the most sustainable structures in the world. LEED (Leadership in Energy and Environmental Design) is an internationally recognized certification system for ecological construction, and the Platinum Certificate

is its highest award. Thanks to intelligent technologies and selected materials, 'Einpark' saves as much as 77 percent energy and 51 percent water compared to standard buildings. In summer, the green roof is up to 25°C cooler than a conventional office building roof. It prevents overheating inside, and contributes to a microclimate that is up to 2°C cooler in the surrounding area. In the offices, chilled beams ensure a pleasant indoor climate on hot days. They are supplied with groundwater via a water-to-water heat pump system that is used to cool the building in summer



Left: The 'Einpark' building in Bratislava is one of the most sustainable in Slovakia.

Above: Kistler won the 'Innovative Office' award for 2023 with its imaginative spatial concept.

Right: The premises are especially conducive to dialog, creativity and collaboration.



and to heat it in winter. The green features also include eleven charging stations for electric cars and an electric composter that converts up to 50 metric tons of organic waste into high-quality substrate every year. This is used for various purposes including maintenance of the green spaces that surround the building.

Prize-winning offices in Bratislava

We have implemented a collaborative space concept in the 'Einpark' building. As well as clearly demarcated work areas, it includes meeting rooms, an Innovation Lab, and encounter zones that encourage cross-departmental collaboration and networking. This concept provides the basis for a new type of collaboration within the Kistler Group. We are even more delighted that the offices have been honored with the coveted 'Innovative Office' award for 2023 by real estate service provider CBRE. The jury praised the inspiring spaces that promote dialog, creativity and collaboration, and they singled out the encounter zone with the stage for special mention. As well as the Innovative Office award, we also won the BIG SEE Interior Design award. The jury made special reference to the spatial concept with its open character, reflecting Kistler's efforts to foster dialog and collaboration at all levels.

Lower consumption of materials and resources

Kistler has also taken further steps towards sustainability in office automation. Since February 2024, all employees throughout the EMEA region, the USA and Asia have had access to DocuSign. DocuSign enables electronic signing of documents that require a signature for business purposes but are not subject to any statutory formal requirements. By the end of March 2024, this already enabled us to save 3,332 sheets of paper and 300 kilograms of CO₂. As well as DocuSign, we have been using the BLP tool for invoice verification and approval since 1 July 2023. Digital invoice processing also allows us to save paper and resources.

PROMOTING ALTERNATIVE MOBILITY SOLUTIONS

Our employees' journeys to and from work, business trips, or transportation of goods from our production facilities to our customers: mobility in all its forms accounts for a large share of the Kistler Group's CO₂ emissions. We have set ourselves the goal of making further reductions to emissions from transportation and traffic.

At 36 percent, business trips and official travel make up a relevant share of the emissions in Kistler's carbon footprint. We undertake to reduce our environmental impact and work towards a climate-neutral future.

E-mobility at the workplace

We are gradually switching our vehicle pool and company car fleet over to models with electric drives. Four electric pool vehicles are already in use at the Winterthur site. We are planning to procure two more. Meanwhile, the expansion of charging stations is progressing: a total of 28 charging points have been brought into operation at locations in Germany, Switzerland and the USA, including five hyper-chargers. At our German sites in Sindelfingen, Lorch and Karlsruhe as well as at Novi (USA), we already enable our employees to charge private vehicles at commercial electricity prices. Business customers can charge vehicles at no cost. The Car Policy for company vehicles in Germany has also been thoroughly revised.

Charging points at Kistler sites



- Winterthur: 14
- Lorch: 6
- Novi: 1
- Sindelfingen: 6
- Karlsruhe: 1

These new provisions came into force in mid-2024:

- No more petrol-powered vehicles can be ordered.
- For defined occupational groups (such as outside sales staff who travel extensively), there is a transitional period for diesel vehicles. If there are no facilities for charging either privately or at the site, a diesel vehicle may be selected regardless of the mileage.
- A bonus arrangement is in place for vehicles with a small engine and/or lower CO₂ emissions.
- If employees who are entitled to a company car waive this entitlement, they receive a compensation payment in return.

Revision of the Car Policy is currently still in progress at the Kistler Group's headquarters in Switzerland.

Compensation for air travel and overnight hotel stays

We can take one step along the path to this goal by offsetting CO₂ emissions caused by business travel. To achieve this, we introduced a CO₂ compensation program within the EMEA region via the TravelPerk platform in February 2024. The CO₂ emissions generated by every business trip booked via TravelPerk are calculated automatically and compensated by certified offset projects.





These are some of the criteria we view as important when we select the offset projects:

- **Additionality:** we ensure that the offset projects could not have been undertaken without additional financing from CO₂ certificates.
- **Accuracy of emissions:** we guarantee that the purported emission reductions are valid, and are verified by third parties.
- **Durability:** we endeavor to protect the project's emission reductions against any reversal.
- **Social benefits:** our projects offer additional benefits for local communities and the environment.

Since we introduced TravelPerk, we have offset 342 metric tons of CO₂ emissions. For our international sales and strategy conference in Benidorm, Spain, we offset the remaining 75 metric tons of CO₂ generated by hotel accommodation and transfers via the CEEZER platform, enabling us to support two climate protection projects in Mexico and India.

Cycling to work

Kistler has a long tradition of supporting the idea of cycling to work. Depending on the location, for example, we offer shower rooms, covered bicycle parking spaces, and other initiatives. One of these has been participation in the 'Bike to work' challenge by our employees in Switzerland every year since 2008. Over 80 colleagues took part in 2024. Together, they covered 31,784 kilometers on their bikes – equivalent to CO₂ savings of 4,577 kilograms.

As of June 2019, Kistler employees in Germany can take advantage of the company bike leasing offer from BusinessBike. In this scheme, the principle of the company car for tax purposes is also applied to bicycles and e-bikes.

The offer is available to all employees, regardless of their entitlement to a company car. Over 300 colleagues have purchased a new, high-quality bike for their commute to work. This and other local initiatives favor our employees' health as well as our environment: everyone benefits from less traffic and noise and fewer pollutants.

Over 300 employees in Germany – more than half the total – take advantage of the company bike leasing offer from BusinessBike. This makes Kistler one of southern Germany's most active companies in this regard.



Marian Gragert
Head of Business Unit Vehicle Testing,
Kistler Instrumente GmbH (DE)

Kistler embraces the transformation of vehicle drive technology

How does e-mobility impact our business?

Electromobility has a major impact on our business. It is one of the four leading megatrends that influence our strategic planning. In historical terms, the automotive industry is dominant for Kistler. Electromobility is ushering in a technological revolution as well as new approaches to vehicle design. Especially as regards the powertrain, the transition from conventional combustion engines to electric systems is under way, with variants ranging from purely battery-powered vehicles to hybrid and plug-in hybrid drives as well as hydrogen technologies. This has already triggered major changes to investments in research and development, and to expenditure by individual car manufacturers and automotive suppliers. The transition amounts to a massive intervention in vehicle production, with the replacement or even total elimination of some powertrain and chassis components that have been standard until now. Kistler is mindful of these developments, and we view them as opportunities. We are prepared for the transition to electromobility.

Which products and solutions is Kistler offering in response to the transformation in mobility?

Kistler is consistently integrating the electromobility megatrend into its strategic planning, and we are developing a portfolio to meet this challenge. In the field of vehicle development and testing, we are creating a complete measurement ecosystem for NEV (New Energy Vehicle) applications: this also entails a gradual transformation of our existing portfolio. The central component is the KiBox2 powertrain analysis system, supplemented by the appropriate hardware and software solutions. There are also new tools for monitoring battery temperature and data acquisition, with integrated sensors for various physical measurements. Kistler's technologies enable our customers to analyze powertrains based on different systems. This underscores our claim to support customers as a professional partner in the new era of electromobility: Innovators work with Kistler.

A GLOBAL NETWORK THAT BENEFITS EVERYONE

To understand and respect one another across cultures and to work on shared tasks, people have to know each other. Through its Management Exchange Program, Kistler aims to bring markets around the globe closer together. The first participants are enthusiastic.



Rolf Sonderegger is convinced: "Given that we are an international company with 60 locations across the globe, it's not enough for us to visit one another now and then, or to communicate on screen." While Kistler's CEO was living in the USA for a few months last year, the idea of a worldwide exchange program began to take shape. It was soon decided to introduce the Management Exchange Program in 2024, at the Winterthur, Novi and Shanghai sites in the first instance.

"It's very valuable to move out of your comfort zone and see things in a different way."

Regina Kakuiti, Head of Finance & Administration, Kistler Instrument Corp. (USA)

Feeling at home

Two apartments were set up in Winterthur for the program participants. This is a project close to the CEO's heart, and he has given it his vigorous support: "I believe it's important for the participants to feel at home in a personally furnished apartment, and for them to get to know Switzerland's cultural diversity." One of the first occupants was Regina Kakuiti, Head of Finance & Administration in North America.

She left her base at Novi in the US state of Michigan for one month so she could get to know her colleagues in Switzerland. Regina was even able to meet the team in Sindelfingen during a two-day visit to Germany. This was an enriching experience for Regina (who is 43), as she explains: "It was fantastic to work side by side with colleagues, because you can learn so much from each other."

Inspiring one another

Differences between cultures also become visible during direct contact. Regina realized that Kistler in Switzerland is ahead of its US branches in terms of business maturity, for example. "Winterthur is our headquarters. The entire functional structure is present there. This results in a more stable business process and more coherent functional support." Regina also sees this as one of the greatest strengths of the Management Exchange Program.

"It allows us regional managers to identify the areas where we need to improve. I'm sure that the US team will also reach the same level over time, thanks to these experiences." Her conclusion is highly positive: "It's very valuable to move out of your comfort zone and see things in a different way. I can only recommend everyone to take part in this program!"

"I received a lot of helpful suggestions from colleagues I'd hardly known until then."

Tilman Kley, Chief People Officer, Kistler Instrumente AG (CH)

New inspiration in the USA

Tilman Kley, Chief People Officer at Kistler in Winterthur, traveled in the opposite direction. In April 2024, he spent four weeks at Regina's workplace in Novi. One of the most valuable aspects of the program in Tilman's opinion: "You bring your day-to-day work routine with you when you move into a new environment, and you gain great benefit from fresh perspectives and broader views."

This process was also made easier because the American style of communicating is far more open than in Switzerland: "So I received a lot of helpful suggestions from colleagues I'd hardly known until then." Ultimately, recognizing these differences also helps Kistler to become better at meeting challenges in other markets. In fact, these are among the program's main objectives: to build new networks and expand existing ones.

Broadening horizons for many participants

There is only one aspect of the program that might be difficult for some employees: being away from their families for several weeks. This was not easy for Regina Kakuiti, either. However, her husband was able to visit her and they made use of their time together to explore Switzerland. And that is definitely encouraged, says Tilman Kley: "The program also offers the opportunity for participants to arrange for time together with their families." Like Regina, HR professional Tilman firmly believes that as many colleagues as possible should take advantage of the Management Exchange Program. "I too can absolutely recommend taking part in this program – no matter whether it takes you to Switzerland, the USA or China."

Management Exchange Program: goals

- Broaden horizons
- Build up a global network
- Strengthen understanding throughout the company
- Improve intercultural skills
- Personal and professional growth

PROJECT EARTH



Bringing us back to earth and slowing us down: Project Earth helps to balance out our constant presence in the digital world.

Project Earth is no ordinary Leadership Training program: it enables selected Kistler employees to come to a traditional country estate in Tuscany, where they gain an understanding of sustainability and experience it hands-on. They spend a whole week working intensively in the vineyards and olive groves of Castello La Leccia.

In parallel with this work, the group explores topics such as leadership, interdisciplinary collaboration, intercultural understanding and self-reflection in the adjacent training center. As well as developing their leadership skills, participants also deepen their understanding of the Kistler Group's strategy, values and culture during their stay.

A total of 125 employees took part in Project Earth from 2019 until 2023. Participation was initially reserved for managers. Since 2023, team leaders who are not members of senior management can also take part in Project Earth. Among them is Dena Torsello, Team Leader CELL Plastic/Force (see the interview in the right-hand columns).

“Considering solutions and working practices in different sectors is a genuine learning process. Project Earth was an eye-opener!”

Jorge Aldeco, Managing Director Latin America, Kistler Instrument Corp. (MX)

“The change of perspective I gained from this project helped me to understand our corporate culture and values at a deeper level.”

Zheng (Joseph) Jiang, Service Manager APAC & Regional Service Head China, Kistler Innovative Technology China Ltd.



Dena Torsello
Team Leader CELL Plastic/Force,
Kistler Instrumente AG (CH)

Project Earth opens up new perspectives

You're one of the first team leaders outside senior management to take part in Project Earth. How did that come about?

The first time I heard about Project Earth was around three years ago. I was attending an in-house event where I talked to the project supervisor about what leadership culture actually means. We quickly came to the conclusion that it may well start at the highest levels, but it also has to be practiced right down to the bottom. She encouraged me to apply for the program. I also received a lot of support from my line managers – all the way up to production management. I'm very grateful for that.

Why do you want to be part of this project?

Leadership culture and values are the quintessence of every company. In my work area, I believe it's very important to set an example and show support for them. Now I'm getting an opportunity to take on a creative role – in respect of strategic goals as well – and to expand my scope of influence.

How do you think your participation might influence your professional and personal development?

I'm hoping that the other participants' input and experience will give me entirely new ways of looking at things, help me to network more widely – and maybe

even trigger a change or two.

Interchange with other international leaders and senior managers will open up new perspectives that I can incorporate into my day-to-day work, so I can become even better. Looking at the entire system from different angles will broaden my overall picture. For me personally, it's worth making an effort to understand why something is the way it is, and what influences it. Every experience I gain allows me to grow.

What are you looking forward to most of all?

Getting to know the other participants and having stimulating conversations. I'm also excited to find out what's in store for us at the winery in terms of physical work. And, of course, I'm looking forward to reflecting on our experiences during Earth Week and what we worked on together in the group, and to sharing all this in the everyday working context.



HEALTHY AT THE WORKPLACE

Employees' qualifications contribute to our company's success – but they are not the only factors: their motivation and long-term health are equally important. To provide support in these key respects, Kistler offers a wide range of counseling services and continued training opportunities, health-related events and exercise classes.

As part of our company health management program, we offer our employees various courses and activities, depending on the location. They are run by professional instructors or under the guidance of our own employees. Our offering ranges from sports activities such as yoga and soccer, health days and first aid courses to information events focusing on sustainability and healthy, regionally-based nutrition. Kistler also supports its employees' fondness for exercise by sponsoring company runs, where entry fees and jerseys are subsidized. Several activities of this sort are staged each year, especially in Germany and Switzerland.

In addition, we provide our employees with free drinking water dispensers at various international locations, for example in Switzerland, Germany and Italy. As a special benefit in Germany, we also offer free fruit. At our largest locations worldwide, we either have our own company canteens or offer our employees meals at preferential conditions.

Targeted development

A motivating workplace environment and a balanced team structure are just as important for mental health as physical equilibrium. Knowing this, we offer possibilities for our managers and team leaders to conduct workshops on diversity and inclusion with their employees. Another very popular offer is the HBDI® workshop (Herrmann Brain Dominance Instrument), which focuses on different thinking styles and their specific strengths and weaknesses. Over 100 employees from twelve teams took part in these workshops during 2023 and 2024. To complement these activities, we have been offering courses on psychological safety since 2024. Teams are successful if and when members can talk openly about mistakes and uncertainties. This creates trust and responsibility, and yields better results. Psychological safety promotes an atmosphere where every team member feels confident to contribute innovative and creative ideas so as to play an active part in achieving success. Two teams from Germany and Switzerland have taken part in this course since it was introduced. In response to the positive feedback from employees, we are planning to continue expanding this offer from 2025 onwards.

Recognizing potential physical and mental hazards

We foster a culture of open discussion so we can identify and address risks in employment relationships at an early stage. Employees can raise their concerns about mental health, working time models, work culture, forms of collaboration or other issues, for example during their standardized half-yearly and yearly appraisals. Line managers, teams and Human Resources then work together to find individual solutions. Other points of contact include the global compliance reporting unit and (as a special feature in Switzerland), the Movis external social counseling service.

As part of our occupational health management, Movis' services are consistently geared towards prevention and early detection, and to providing counseling and support for employees in acute crisis situations. Since Kistler began collaborating with Movis in 2022, around 30 employees have taken advantage of the counseling services. All costs arising from the counseling are borne by Kistler. Counseling can be provided on a totally anonymous basis. A similar service is also available in the USA.

Movis – counseling on specific topics

	2022	2023
Work-related	1	2
Personal	0	3
Health-related	5	11
Financial	4	2
Integration	0	1
Total of topics covered	10	19

SOCIAL AND COMMUNITY ENGAGEMENT

We are passionately committed to acting responsibly and to promoting harmonious social and communal coexistence. The Kistler Group supports selected individuals and institutions with initiatives and partnerships as well as donations in kind and in cash. In most cases, this support has continued for many years.



Sponsorship for Sandra Stöckli

Since the start of 2023, Kistler has been supporting Sandra Stöckli, the successful Swiss para-cycling athlete, as her sponsor. In 2024, she won the overall World Cup on her handbike for the second time, and she represented Switzerland at the Paralympic Games for the third time at Paris in 2024. High goals and great ambitions – we share those with her. And that's exactly why Sandra Stöckli and Kistler are a perfect match.



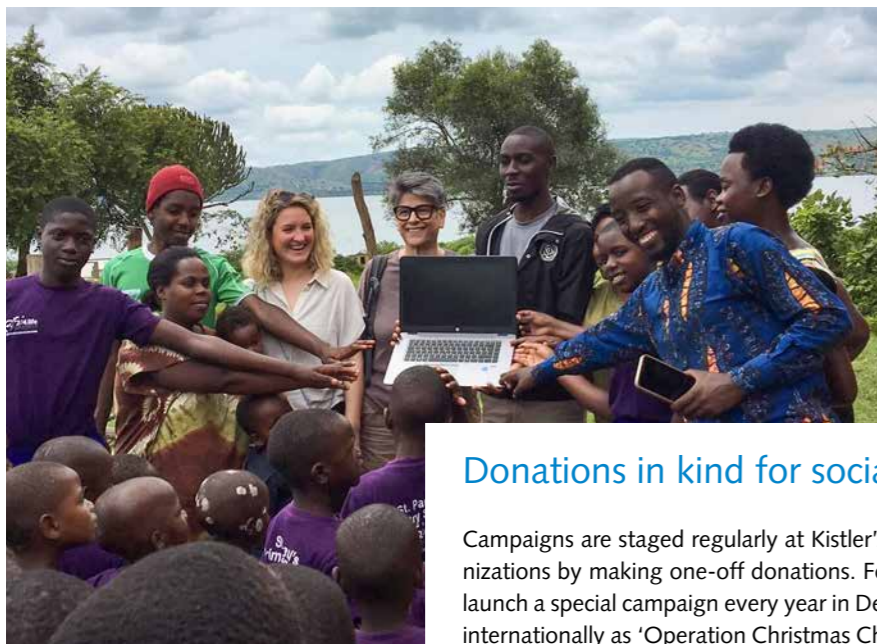
Fostering young talents

Since 2024, the Kistler Group's sites at Meerane and Chemnitz in the German state of Saxony have partnered with potential.akademie eG, a registered co-operative society that aims to support young people in the difficult phase of career and study orientation. Its motto: 'Talent factory on the move'. On the basis of selected test procedures, certified mentors work together with young talents to assess their strengths and the resultant potential career paths and professional aspirations. Internships at any of some 200 partner companies enable the young people to get a taste of everyday working life in a protected setting – a win-win situation for everyone.



Reaching the top together

The Kistler Group maintains partnerships with universities, colleges and research institutions throughout the world. In September 2023, the Academic Motorsports Association of Zurich (AMZ) – a team of students and alumni from ETH Zurich and Lucerne University of Applied Sciences and Arts – achieved a major feat in collaboration with Kistler. Competing with their electric race car in Formula Student, the world's largest and most prestigious competition for young engineers and students, AMZ Racing managed to beat the previous best time by no less than 0.956 seconds. The old record was set by the University of Stuttgart in 2022, and was officially recorded in Guinness World Records. The world record for acceleration was recorded by an optical sensor from Kistler used to measure vehicle dynamics. The results were then analyzed with Kistler's jBEAM software, which is used for many applications including electric vehicle development and testing.

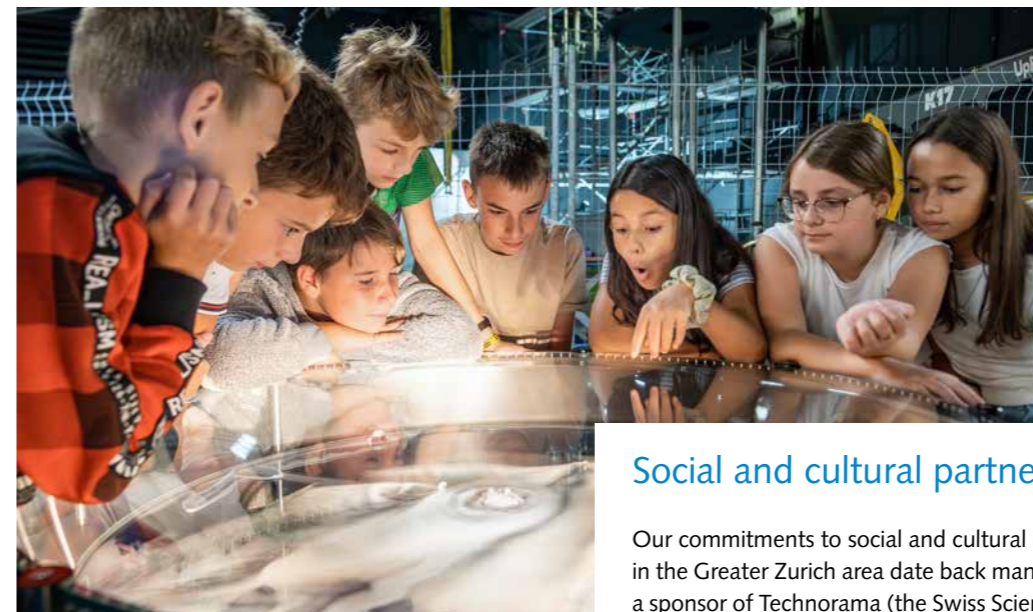


Donations in kind for socially disadvantaged people

Campaigns are staged regularly at Kistler's various sites to support associations or organizations by making one-off donations. For example, employees in Meerane, Germany, launch a special campaign every year in December: for 'Christmas in a Shoebox' – known internationally as 'Operation Christmas Child' – they pack up parcels full of presents that are sent to needy families in Germany and abroad. Another donation made children's eyes light up in spring 2024: St. Paul's School in Uganda received the first of four laptops previously used for work at Kistler. The school students and teachers were absolutely delighted with this gift!

Cellsius: emission-free flight

This university partnership has also borne fruit: founded in 2022, the Cellsius association focuses on sustainable aviation. It offers students in their final year of studies for a Bachelor's degree at ETH Zurich the opportunity to test their knowledge and skills on real aircraft. The e-Sling project concerned the development of CO₂-free powertrains for small aircraft. It involved equipping a low-wing aircraft with an electric propulsion system. Cellsius succeeded in building the world's first licensed four-seater electric aircraft constructed by students! A torque sensor from Kistler was used to design the motor and develop the power electronics.



Social and cultural partnerships that last many years

Our commitments to social and cultural institutions at our Winterthur (CH) location and in the Greater Zurich area date back many years. Since 2018, for example, we have been a sponsor of Technorama (the Swiss Science Center), which aims to generate enthusiasm for the natural sciences among its visitors, and to consolidate the importance of Winterthur city as a location for technical research and production. The largest single donation goes to Pro Infirmis, a charitable association that helps people with disabilities and their families to lead lives based on self-determination. Kistler and Pro Infirmis have already been partners for six years.



Supporting employees in need

To this day, Kistler maintains what is known as a Welfare Fund. The fund's purpose is to support colleagues in economically challenging times. Especially during the pandemic, money from the relief fund benefited employees who became particularly ill due to COVID, those suffering from its long-term consequences (known as 'long COVID'), and also colleagues subsequently affected by short-time working. After the severe earthquake in Turkey at the beginning of 2023, the fund once again proved its worth. With a contribution from the Welfare Fund, we were able to provide straightforward emergency aid on the ground to a colleague and his family who were impacted by the tremor.



“Compliance and governance are essential to ensure conformity with legal regulations, protect intellectual property and maintain customer trust.”

Thomas Kärcher, Head of Compliance, Kistler Instrumente AG (CH)

In 2023, moreover, the Act on Corporate Due Diligence Obligations in Supply Chains (the Supply Chain Act, or SCA) came into force in Germany. This obligates us to comply with human rights and environmental standards throughout the value chain. In our Code of Conduct for Suppliers, we clearly define the binding standards that we expect our suppliers to meet. In 2024, we also introduced a software tool that uses business/economic information, news and social media posts to record and present possible violations of ESG guidelines by suppliers. In case of violations, the tool generates a report to the buyers concerned. They request a statement from the supplier and initiate an on-site audit if the responses are inadequate. If the measures taken are inadequate, the supplier is excluded from future contract awards.

Continuous improvement based on certified management systems

All our development and production sites, as well as selected service and sales organizations of the Kistler Group, are certified according to ISO 9001 (quality management). We are currently moving ahead with further standards and certifications worldwide, especially in the areas of occupational safety and environmental management.

To this end, we are stepping up our investments in QHSE (Quality, Health and Safety, Environment) processes. Within the scope of a pilot project, the Sindelfingen site was certified in the areas of environmental management and occupational safety in 2019 and 2021. The Winterthur site is expected to obtain ISO 14001 and ISO 45001 certifications in January 2025.

ACTING RESPONSIBLY

As a company that operates globally, we meet high ethical and legal standards. We view compliance as a fundamental requirement so we can be a trustworthy partner for our customers, employees and other stakeholder groups.

Management is primarily responsible for compliance. As well as acting as a role model, management creates the framework and the necessary structures for implementing compliance within our company. We have set out the most important rules and corporate principles on topics such as combating corruption and protection against discrimination in our Code of Conduct.

We use an e-learning module to ensure that our employees have understood and assimilated the Code's content. Since 2022, it has been possible to report violations simply and anonymously online.

Binding standards for suppliers

The specific regulations that we have to meet on account of our activities include the RoHS and REACH regulations to ensure product safety and the EU Conflict Minerals Regulation.

Compliance culture: management's function as a role model

Prevent

- Code of Conduct
- Policy: Compliance Management
- E-learning activities

Expose

- Reporting process
- SpeakUP line, reporting system
- Monitoring and internal investigation

Respond

- Consequences
- Improvement measures

What if ... measurement technology could open up new perspectives – if we could discover groundbreaking solutions simply by looking at things from a different angle! And ... suppose we view global challenges as incentives for progress? Kistler takes on the challenge of bringing up the right questions – and making the answers visible. Changing perspectives, and breaking through entrenched ways of thinking – that means opening the way for new ideas to emerge.

Kistler's innovative products give our customers reliable data as the basis for their pioneering developments. Here at Kistler, we are absolutely committed to helping companies and research partners exploit their innovative strengths to the full.

So – what if measurement technology became the game changer? See how Kistler responds to this challenge in a video that shows what our company is doing to help our customers succeed.



Information about Kistler and
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