

2023

Sustainability Report

Innovation driving Sustainability

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A Message From Dr. Frank H. Laukien

Chairman, President & CEO

As a forward-thinking, innovative company, Bruker has a rich legacy of protecting the environment, treating others with dignity and respect, and following the highest standards of ethical compliance and governance. These principles more recently characterized as Environmental, Social, Governance (ESG), have been an integral part of Bruker's DNA for over 60 years.

We are proud to introduce this inaugural Sustainability Report which showcases our commitment to transparency and progress in selected, high-impact ESG areas.

As a global innovation leader in developing and marketing cutting-edge analytical technologies and solutions, our scientists and engineers support researchers and businesses around the world to better understand cell and disease biology, measure and image complex systems, and search for new ways to improve the quality of life. We are especially proud to collaborate closely with many of our customers on ways to ensure a more sustainable future.

Our company's greatest asset is the passion and experience of the 8,500+ employees working all across the globe to support stakeholders within our ecosystem. We believe in a dynamic entrepreneurial work environment, where diversity and inclusion contribute to our collective business success. Images of some of our efforts are reflected on the pages in this report, including broad organizational steps to address energy usage, natural resource conservation, recycling, product design and safety, talent development, and more.

In this 2023 Sustainability Report you will find detailed information about our sustainability initiatives, social actions, and governance practices. We are proud of the progress we have made thus far and recognize that there is always more to be done.

We look forward to updating you annually on our progress and new initiatives driving further sustainability.

Sincerely,

Frank H. Laukien, Ph.D.
Chairman, President & CEO



About This Report

We are pleased to offer the 2023 Environmental, Social, and Governance (ESG) report of Bruker Corporation, which confirms our commitment to responsible business practices and provides an overview of Bruker's ESG strategy, initiatives, and performance. Metrics and initiatives noted herein relate to the fiscal year 2022. As a global leader in life science tools and diagnostic solutions, Bruker recognizes the importance of sustainability and the role it plays in contributing to long-term value for all stakeholders. This report also highlights the progress made thus far in our sustainability journey.

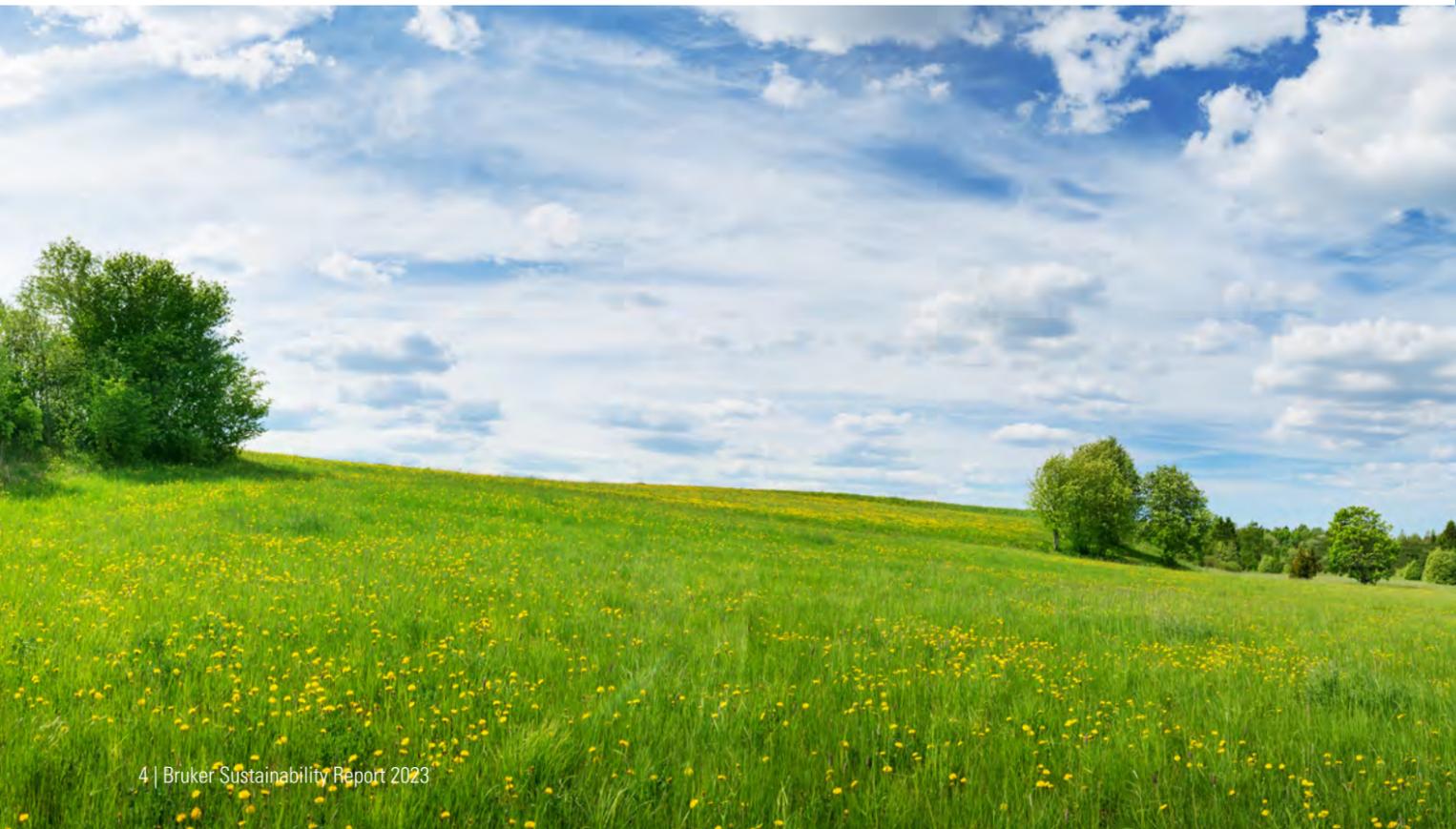
Bruker Corporation's ESG report reflects the company's culture of incorporating sustainability principles across its global operations. With a truly global presence, the company is committed to reducing its environmental impact, promoting social responsibility, and exercising high standards of corporate governance. The report presents a detailed analysis of Bruker's sustainability performance across key elements of ESG, climate impact, diversity and inclusion, ethical practices, and community engagement.

Disclosures

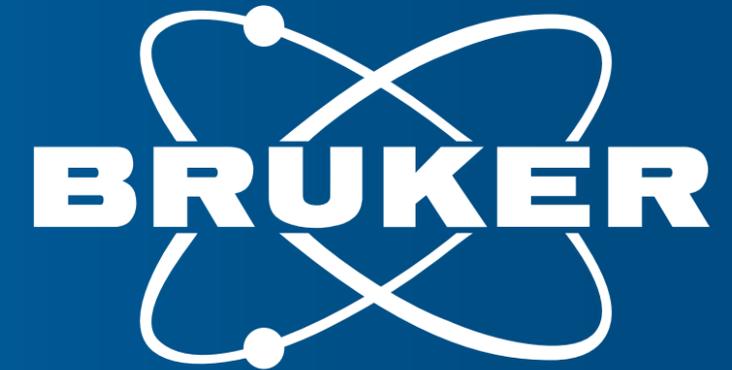
This document encompasses Bruker's strategy and performance related to a variety of Environmental, Social, and Governance areas. The contents of this were produced with reference to the Global Reporting Initiative (GRI) Standards, as well as the Sustainability Accounting Standards Board (SASB) Standards for the Electrical & Electronic Equipment industry. Bruker assumes no obligation to update this report at any future time. Please see additional disclosures located in the appendix of this report.



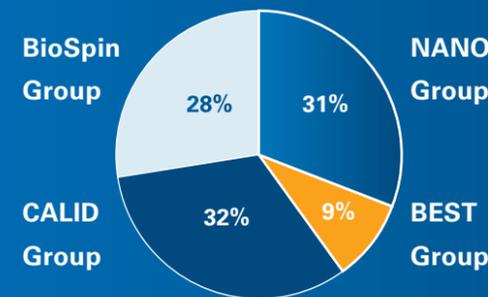
For more information, please visit the Corporate Social Responsibility section of our website at www.bruker.com/en/about/csr, scan the QR code below, or contact our Investor Relations department at Investor.Relations@bruker.com.



Bruker At A Glance



Business Segment Revenue Mix



Geographic Revenue Mix

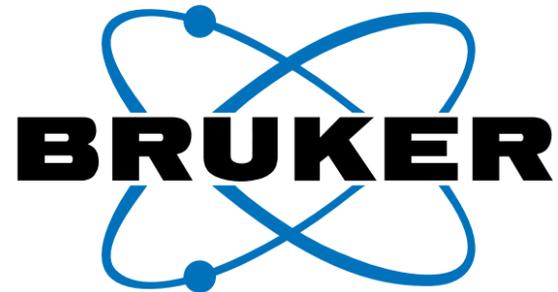


Mix percentages by Geography, Group, and End Market all refer to FY2022 Revenues. Percentages are rounded to whole numbers.

Bruker Scientific Instruments End Markets

Market Mix		
	Academic & Govt Research	39%
	Industrial Research & Other Industrial	21%
	Pharma & Biotech	16%
	Hospital & Clinical	10%
	Microelectronics & Semiconductor	10%
	Food Safety & Other	4%

Bruker Corporation Profile



Bruker Corporation was founded in 1960 and develops, manufactures and distributes high-performance scientific instruments and analytical and diagnostic solutions that enable scientists to make breakthrough discoveries and explore life and materials at microscopic, molecular and cellular levels. Many of the company's products are used to detect, measure and visualize structural characteristics of chemical, biological and industrial material samples. In close cooperation with our customers, Bruker is enabling innovation, improved productivity, and customer success in life-science molecular and cell biology research, in applied and pharmaceutical applications, in microscopy and nanoanalysis, as well as in industrial research, semiconductor metrology and cleantech applications. Bruker offers highly differentiated, high-value life science and diagnostics systems and solutions in preclinical imaging, clinical phenomics research, proteomics and multiomics, spatial and single-cell biology, functional structural and condensate biology, as well as in clinical microbiology and molecular diagnostics.

Bruker has four business segments: BioSpin, CALID, NANO, and Bruker Energy & Supercon Technologies (BEST). BioSpin, CALID, and NANO together combine to form our Bruker Scientific Instruments (BSI) reportable segment.

Advancing Science and Innovation: An Overview of BioSpin, CALID, NANO, and BEST Business Segments

Our BioSpin segment designs, manufactures and distributes enabling life science tools based on magnetic resonance technology. BioSpin's revenues are generated by academic and government research customers, pharmaceutical and biotechnology companies and nonprofit laboratories, as well as chemical, food and beverage, clinical and other industrial companies.

Our CALID (Chemicals, Applied Markets, Life Science, In Vitro Diagnostics, Detection) segment designs, manufactures and distributes life science mass spectrometry and ion mobility spectrometry solutions, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies and radiological/nuclear detectors for Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) detection. Customers of the CALID business segment include academic institutions and medical schools; pharmaceutical, biotechnology and diagnostics companies; contract research organizations; nonprofit and for-profit forensics laboratories; agriculture, food and beverage safety laboratories; environmental and clinical microbiology laboratories; hospitals and government departments and agencies.

Our NANO segment designs, manufactures and distributes advanced X-ray instruments; atomic force microscopy instrumentation; advanced fluorescence optical microscopy instruments; analytical tools for electron microscopes and X-ray metrology; defect-detection equipment for semiconductor process control; handheld, portable and mobile X-ray fluorescence spectrometry instruments; spark optical emission spectroscopy systems; chip cytometry products and services for targeted spatial proteomics, multi-omic services; and products and services for spatial genomics research. Customers of the BSI NANO segment include academic institutions, governmental customers, nanotechnology companies, semiconductor companies, raw material manufacturers, industrial companies, biotechnology and pharmaceutical companies and other businesses involved in materials research and life science research analysis.

Our BEST segment develops and manufactures superconducting and certain non-superconducting materials and devices for use in renewable energy, energy infrastructure, healthcare and "big science" research. BEST focuses on metallic low temperature superconductors for use in magnetic resonance imaging, nuclear magnetic resonance, fusion energy research and other applications.



Bruker Corporation HQ, Billerica, MA, USA



Bruker NANO Facility, Berlin, Germany



Sustainability Materiality Assessment

Against a backdrop of rapidly changing ESG regulations and programs across the globe, Bruker thoughtfully developed a sustainability strategy by distilling broad potential topics into focal points most relevant to our stakeholders.

An initial materiality assessment was conducted by Bruker in 2022 to identify key focal points and to define metrics designed to assess our current standing and progress in each area. The assessment gathered input from representatives from our executive management team, all of our business groups, our compliance and human resource teams, and also factored in discussions with suppliers, customers, investors, and our Board of Directors. This process was supported by an external advisor to provide an independent perspective. The outcome from this process was a priority list of material ESG topics, combined with suggested material topics from leading standards boards and benchmark studies from across the industries in which we operate.

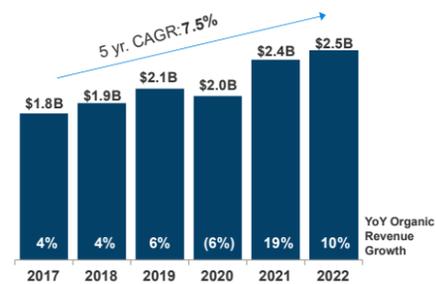
We intend to examine our initial materiality assessment on a regular basis, refreshing and updating it as necessary to ensure the most material, meaningful areas remain in focus.

The identified material topic areas are each accompanied by one or more key performance indicators which we expect to use over time to measure and strengthen our sustainability performance.

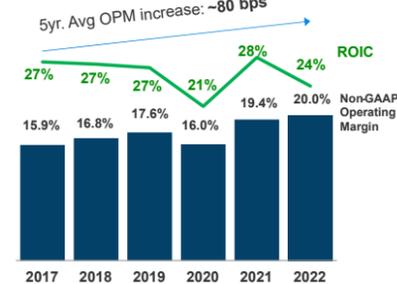
Economic Performance: Innovation and Multiyear Transformation Delivering Shareholder Value

During the period 2014-2016, Bruker underwent a major operational and financial transformation which helped set the stage for the accelerated growth and margin profile we continue to deliver today. Key components of this transformation process included taking unnecessary costs out of the business, consolidation of operations, new leadership and processes, as well as the divestiture of certain non-strategic business lines. Integrating ERP systems, adoption of an improved CRM, addition of HR compensation incentives, and increased outsourcing of certain components and production activities all drove improved operating results. Since that time, we have delivered strong revenue and profitability performance, including improved return on invested capital (ROIC).

Revenue Growth Acceleration



Significant non-GAAP Operating Margin expansion, ROIC >20%



Non-GAAP EPS DD CAGR



2014-2016: Restructuring & Transformation

- Cost out, consolidation and divestitures
- New organization & management process
- Integrated ERP, SF CRM adoption
- New HR compensation/incentives
- Increased outsourcing

2017-2020: Project Accelerate & Operational Excellence

- Portfolio transformation
- Entrepreneurial **Bruker Management Process**
- Improved productivity
- Shared services centers
- Enhanced compliance & risk management

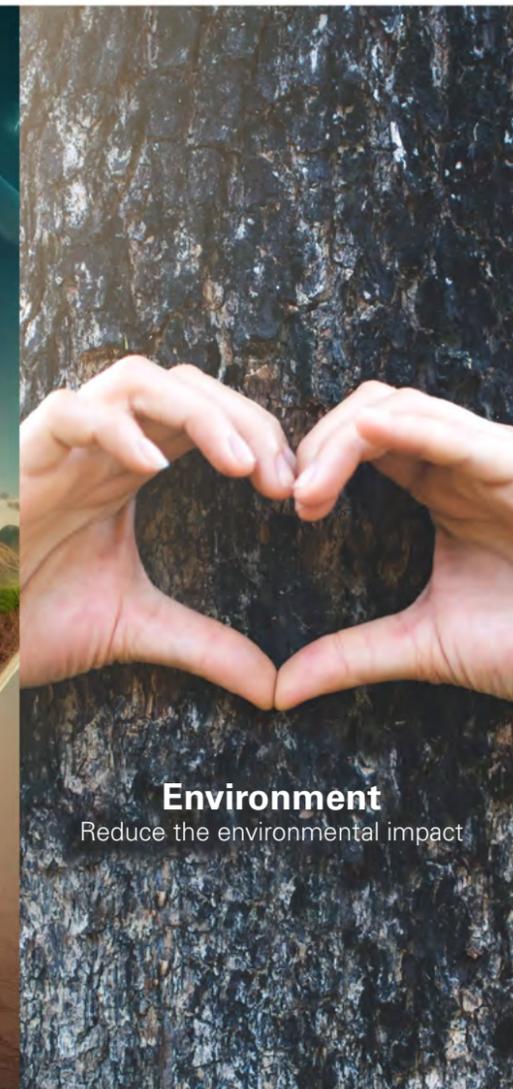
2021-2023+: Project Accelerate 2.0 & Operational Excellence Goals

- Major opportunities in **Proteomics, Metabolomics** and **Spatial Biology**
- Microbiology & Molecular DX
- Biopharma & Applied, Semi Metrology
- Aftermarket, Consumables & Software
- Further improved productivity, tax rate



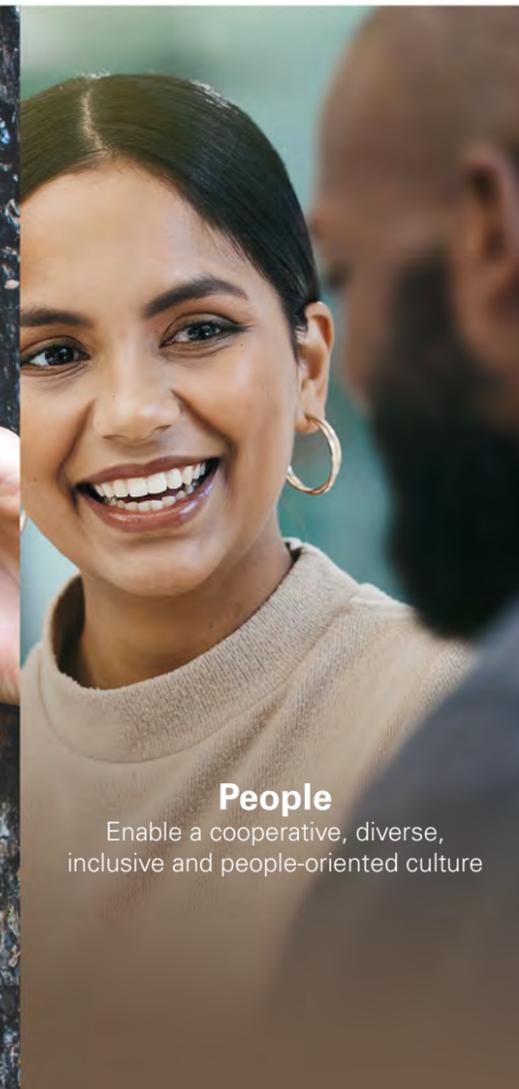
Innovation

Enable advancements in human health and the health of the broader ecosystem



Environment

Reduce the environmental impact



People

Enable a cooperative, diverse, inclusive and people-oriented culture

Sustainability Strategy

Purposeful innovation driving breakthrough discoveries for a more sustainable future

Bruker’s core mission has long been to develop instruments and solutions that unlock the mysteries of cell and disease biology and enable advancements in human health and the health of our broader ecosystem. Whether for developing life-saving medicines, battery technology for electric vehicles, or assuring the purity of our food, researchers increasingly rely on Bruker’s innovations as their tools of discovery. Bruker’s commitment to sustainability starts with a deep commitment to the academic research and business community to drive purposeful innovation to enable new discoveries that support a more sustainable future.

Business operations aligned to a sustainable environment

Bruker is committed to operating our businesses sustainably in clear alignment with the principles of ESG. We understand that operating sustainably is in the best interest of all our stakeholders. We have a rich legacy of operating and acting responsibly to support a more sustainable future.



Innovation Driving Sustainability



Bruker’s innovative technologies and solutions support scientists and businesses around the world to explore, understand, and improve the world in which we live.

Our innovative spirit drives solutions intended to address environmental challenges, improve recycling, advance research discovery, identify hazardous and harmful materials in the environment, and keep our foods and environment safe. We are proud to support a more sustainable future.



BRUKER APPLICATIONS

Addressing Environmental Challenges

Our innovative products help scientists around the world explore, understand, and improve the world around us. In many cases, we collaborate closely with our customers on ways to support a more sustainable future. The following are selected examples of how our technologies are helping address real life environmental challenges.

Quantifying greenhouse gases in the atmosphere

Precise quantitative measurements to determine the concentration of various Greenhouse Gases in the atmosphere are of fundamental importance to understanding their impact on climate change. Bruker’s high-end FTIR spectrometer IFS 125HR and the portable FT-IR spectrometer EM27/SUN can use the sun as the light source in order to measure the total column of a large number of relevant GHGs in the atmosphere. The spectrometers are employed either stationary, even in remote areas, or mobile for temporary measurement campaigns. The results can be used to validate satellite-based measurements or to determine the amount of Greenhouse Gases emitted by a local source such as a city. Learn more here: [Bruker Air Analysis](#).

Identifying harmful gas leakages

FT-IR based Remote Sensing systems allow for fully automated identification and localization of a large set of potentially dangerous gas compounds on industrial sites. They can cover a vast area, which is in most cases only limited by the line of sight of the employed systems. These systems easily replace complex sensor networks consisting of many chemical-specific point sensors to localize dangerous gas leakages. For those working with potentially dangerous gas compounds on an industrial site, ensuring the safety of neighboring areas can be crucial. FT-IR based open path spectroscopy also enables the identification and quantification of even trace amounts of harmful compounds and gives an immediate warning of a gas leak. Learn more here: [Bruker Remote Sensing](#).



Increasing photovoltaic performance

With a better understanding of the chemical composition, microstructure, defects and contamination, the overall opto-electronic performance of solar cells can be further enhanced to address global energy challenges. Bruker has developed a series of state-of-the-art electron microscope analyzers. Bruker’s 3D microscopes provide a subnanometer vertical resolution over large fields of view necessary to obtain quantitative correlation of texture to efficiency of the solar cell. In addition, Bruker’s stylus profilers offer a rapid check of linewidth and height over one or more sections of the sample. Learn more here: [Bruker Solar](#).

Driving sustainable energy and battery research

As the world continues to reduce its reliance on fossil fuels by transitioning to renewable and sustainable energies, effective storage solutions become increasingly important. Improved battery technology such as Lithium-ion batteries (LIBs) are expected to play a key role. Bruker’s portfolio offers customers a range of high-tech analytical instruments with a focus on battery technology research to give new and agile businesses the space to innovate for a more sustainable future. Our technologies such as nuclear magnetic resonance (NMR) spectroscopy, electron paramagnetic resonance (EPR) spectroscopy, magnetic resonance imaging (MRI), X-ray diffraction (XRD), and X-ray microscopy are helping researchers understand and optimize the physical and chemical properties of different materials during the charge-discharge cycle. NMR and EPR are both non-destructive methods with quantitative capabilities and research is continuing to improve sensitivity and increase resolution. In addition, associated powerful imaging techniques such as MRI are being used in a new multi-technique analytical paradigm. X-ray Diffraction and X-ray Microscopy solutions offer non-destructive characterization techniques to understand and optimize the performance and stability of all battery components and the fully assembled battery cells. Bruker also contributes to the reduction of waste during the battery manufacturing and recycling processes. Learn more here: [Bruker Battery Research](#).





BRUKER APPLICATIONS

Advancing Research Discovery

The research and development of new treatment and drugs to combat global diseases rely heavily on modern technology. Bruker supplies research institutes and organizations with tools and solutions required to achieve life saving breakthroughs.

Advancing neurodegenerative disease research

The United Nations recently announced a new global monitoring system for dementia, a debilitating disease which is expected to triple in prevalence by 2050 and affect approximately 152 million people worldwide as population aging increases. Advances in MS (mass spectrometry)-based proteomics technology have opened up new possibilities for early screening and treatment of dementia. Our technology is used by many of the world's leading research institutions to study the molecular characteristics of age-related neurodegenerative diseases such as Alzheimer's and Parkinson's. Inscopix, a Bruker company, develops neuroimaging solutions for freely behaving animals, focused on decoding the brain to better understand and address all neurological disorders. Their miniscope end-to-end neurotechnology stack of advanced in vivo imaging, stimulation, and data analytic solutions enables quantitative and rapid insights into brain function and behavior. We hope that our technologies will generate new health strategies and transform the discovery process to translate discoveries into clinical practice to address the growing burden of neurodegenerative diseases on society. Learn more here: [Bruker Mass Spectrometry](#) and [Inscopix](#)



timsTOF Pro2

Combating cardiovascular disease

Cardiovascular diseases (CVDs) caused approximately 19.1 million deaths globally in 2020 and, according to the World Health Organization (WHO), are the leading cause of death worldwide. This trend of high incidence and mortality is on the rise as people now live longer and are therefore at higher risk of developing CVD. Age is not the only risk factor, however. The underlying causes of different types of CVD, such as coronary heart disease and cerebrovascular disease, can be complicated and are not limited to diet and smoking. Poverty, stress, and environmental pollutants have been shown to influence risk of CVD. Magnetic resonance imaging (MRI) is a widely used method in diagnosing CVD, and is also an important tool in preclinical research. By investigating animal models of CVD with magnetic resonance imaging techniques developed and marketed by Bruker, such as magnetic resonance angiography, magnetic resonance spectroscopy (MRS), and magnetic resonance angiography (MRA), researchers gain a better understanding of disease pathophysiology and progression. Learn more here: [Bruker Understanding Cardiovascular Diseases](#)

Enabling pharmaceutical drug discovery

From first step to final market introduction, bringing a new drug into the market is a time consuming, highly regulated, and expensive process, one which may take a decade or more. Final success crucially depends on the early availability of accurate analytical results from early drug discovery and development studies.

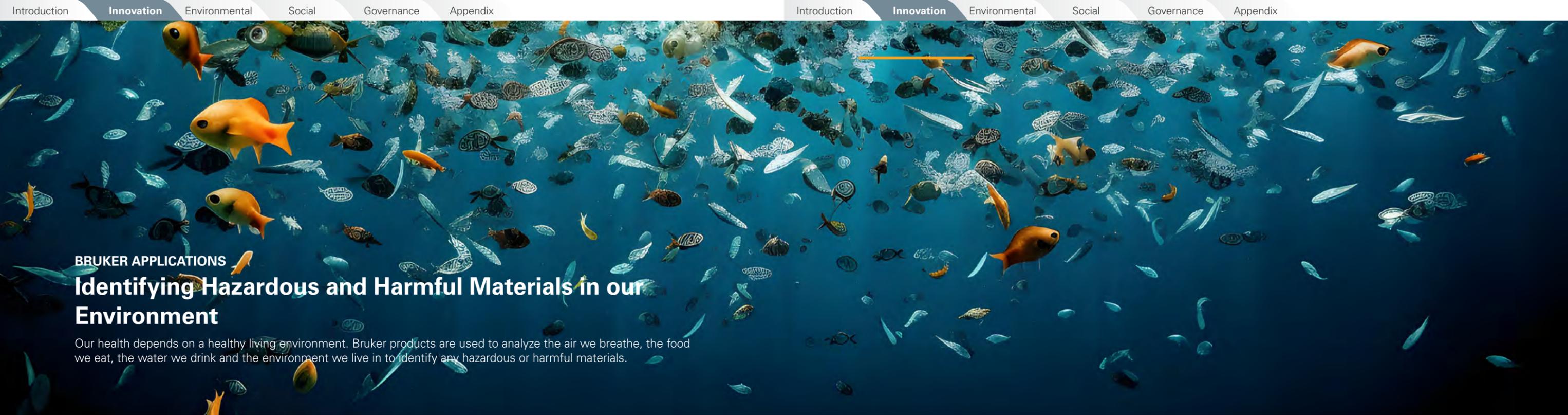
Today's drug development is based on the establishment and testing of a biological target to establish linkage between the target and disease biology. Target identification requires a deep understanding of the properties of the candidate and the biological interplay with a protein and its ligand(s). This requires insights into both structural and affinity related aspects of that biological interplay. Cell and protein biology is covered by a large range of Bruker's product portfolio including nuclear magnetic resonance (NMR), mass spectrometry (MS), single-crystal X-ray diffraction (SC-XRD), small-angle X-ray scattering (SAXS) and surface plasmon resonance (SPR). In many cases, preclinical imaging also delivers important upfront information to assess if a potential target elicits the expected biological response that could modulate the disease. Learn more here: [Bruker Drug Discovery](#)

Advancing discoveries for cancer treatment

Non-invasive imaging provides key insights into tumor development, response to treatment and drug toxicity. The analytical value of individual imaging strategies can be further enhanced by combining structural and functional imaging modalities. Multimodal imaging in preclinical research using in vivo imaging allows cancer-related processes to be visualized in real time for extended durations, with high sensitivity and resolution. A deeper understanding of a range of tumors and improved treatment options have been obtained through the use of a variety of imaging techniques, including MRI, SPECT, PET and CT, and microCT. Bruker provides a full range of innovative non-invasive in vivo imaging technologies to facilitate the understanding of the course and mechanisms of tumor progression and the effects of treatment. Dual-modality imaging configurations like PET/CT and PET/MR or even tri-modal instruments that combine PET, SPECT an CT technologies, address today's most challenging research needs and provide quantitative 3D tomographic images of radiotracers, bone, and soft tissue. Additionally, in 2022, Canopy Biosciences, a Bruker Company, launched the CellScape™ ChipCytometry™ system, which delivers single-cell targeted spatial proteomics for complex whole-tissue analysis of the tumor microenvironment. Learn more here: [Bruker Oncology](#)



BioSpec Maxwell



BRUKER APPLICATIONS

Identifying Hazardous and Harmful Materials in our Environment

Our health depends on a healthy living environment. Bruker products are used to analyze the air we breathe, the food we eat, the water we drink and the environment we live in to identify any hazardous or harmful materials.

Screening and characterization of microplastics

Polymer particles with a diameter of less than 5mm are referred to as microplastic particles (MPP). Their ubiquity presents an enormous challenge to our environment as pollutants such as pesticides, pharmaceuticals, heavy metals and polychlorinated biphenyls (PCB) attach to MPPs and are subsequently released into the ground, where they may affect plant growth and contaminate drinking water. MPPs pose an environmental hazard because, when ingested by organisms, they have been shown to negatively impact growth, development and reproduction.

Light microscopy is a fundamental method to detect MPPs, but it does not provide the chemical information necessary to identify the polymers involved. Matrix-assisted laser desorption ionization time-of-flight mass spectrometry (MALDI-TOF MS) is the industry standard for polymer analysis and can be used by both expert users and beginners. Bruker's FLEX instrument portfolio provides reliable results for MPP analysis, from rapid screening to comprehensive target characterization. Learn more here: [Bruker Microplastics Analysis](#)

Analyzing oil and grease contamination

Organic toxic waste (oil and grease) causes ecological damage to aquatic organisms, plants, and animals. It's also mutagenic and carcinogenic to humans. Whenever oil and grease are handled industrially and on a larger scale (e.g. offshore oil-rigs) their discharge into the environment must be closely monitored. The ASTM (American Society for Testing and Materials) approved method D7575 describes a convenient approach for using infrared spectroscopy to solve this problem. Water samples are simply passed through a solid phase extractor and immediately analyzed for their oil and grease content. The analysis allows direct evaluation of the amount of oil contamination and its origin. Learn more here: [Bruker Oil in Water Analysis](#)

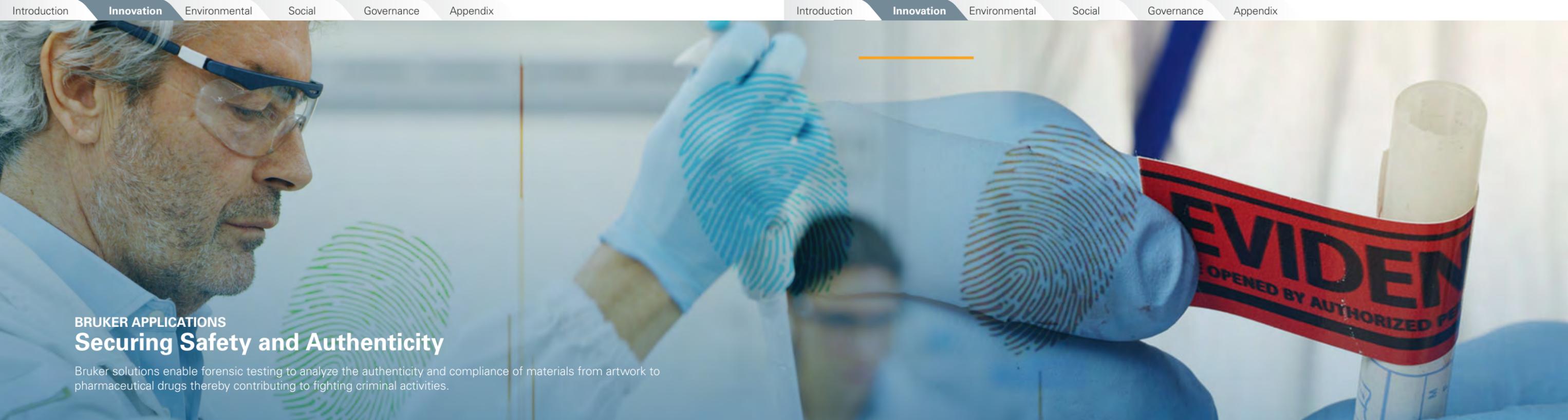


Measuring water contamination with heavy metals and hazardous elements

Water is Earth's most valuable resource. Bruker provides tools that measure all aspects of water ranging from heavy metal content to organic compounds or microplastic particles to oils that may be found in water. Bruker helps to ensure water quality on many different levels with ultimate accuracy whether analysis happens in the field or in the lab. Total Reflection X-Ray Fluorescence (TXRF) is one such tool. TXRF is a versatile and sensitive technique for the analysis of heavy metals in water, achieved with minimal cost and sample preparation, measuring the concentrations of elements from Mg – U down to sub parts-per-billion levels. Learn more here: [Bruker Critical Zone and Environmental Science](#)

Safeguarding the food supply

The globalized food supply chain poses increasingly complex regulatory challenges to producers, consumers, and governments – and accurate microbiological testing technology is vital for the detection of foodborne pathogens, possible food spoilage organisms and dangerous technological strains. Bruker's analytical instruments help safeguard the quality and safety of food and beverages, animal feed and agricultural products throughout the entire supply chain – from raw materials batch inspection to production quality control. The MALDI Biotyper® (MBT) provides specific and reliable identification in minutes, allowing manufacturers to make timely decisions such as in the case of food batch withdrawal. Real-time confirmation and identification results for Salmonella spp., Cronobacter spp., Campylobacter spp., Listeria spp., and Listeria monocytogenes from a range of agar plates confers critical time savings by testing multiple colonies in one run. Learn more here: [Bruker Food & Beverage Microbiology](#)



BRUKER APPLICATIONS Securing Safety and Authenticity

Bruker solutions enable forensic testing to analyze the authenticity and compliance of materials from artwork to pharmaceutical drugs thereby contributing to fighting criminal activities.

Authenticating artwork

The task of art authentication has long been in the hands of curators and art historians and, often, its provenance must be designated unknown if a piece cannot be reliably validated. The field was widely open to forgery. New techniques and advances in Bruker’s analytical instruments can now determine the precise composition of organic and inorganic pigments and binders. X-ray fluorescence spectroscopy (XRF), infrared spectroscopy (IR) and Raman spectroscopy offer effective, and critically non-destructive, in situ analysis of paints, pigments and resins. Spectroscopic analysis of artwork provides critical information regarding the chemical composition of materials and pigments used, either supporting authenticity or revealing inconsistencies associated with fraud. Two paintings known as Mill Hall #1 and Mill Hall #2, were previously examined and rejected as Jackson Pollock originals by the International Foundation for Art Research (IFAR) for incomplete provenance and artistic interpretation. However, recent analysis with Bruker’s XRF, IR and Raman spectrometry instruments provided compelling evidence that the paintings were, in fact, genuine. Learn more here: [Bruker Art & Document Fraud Prevention](#)



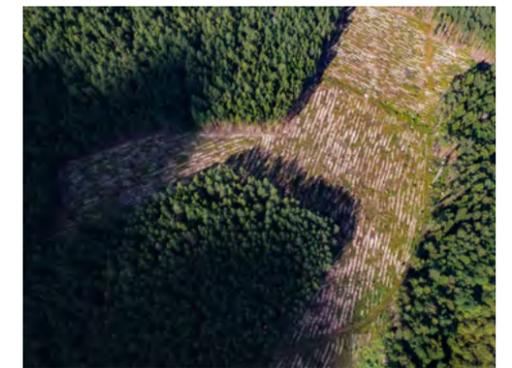
Detecting threats from explosives and narcotics

Customs facilities represent a strategic traffic checkpoint at the entry to any country. These facilities provide the first defense against the trafficking of illicit substances by both passenger and commercial channels. In many cases customs facilities are based in huge warehouses containing many thousands of packages or can be based at the side of shipping docks, which accommodate the largest of ocean-going vessels. For passenger traffic, customs facilities are normally located at a port or airport of entry. Preventing the importation of explosives and narcotics is an important strategy of most Customs facilities around the world. In all cases the presence of explosives and narcotics can be detected quickly by a trace detector. The Bruker DE-tector Flex and RoadRunner instruments were specifically designed for this task. The former provides a high throughput benchtop capability and the latter is a handheld version best suited for mobile applications. Learn more here: [Bruker Critical Infrastructure Protection](#)

Identifying illegal logging

Species identification is crucial to tracking and preventing illegal logging and timber trafficking that causes considerable environmental, social and economic damage.

Direct analysis in real-time (DART) TOF MS has emerged as a promising technique for forensic wood species identification. Requiring little to no sample preparation, DART MS is considered non-contact and relatively non-destructive, reducing sample cross-contamination and sample loss and making it ideally suited for forensic work. DART-MS techniques have found wide application in analyzing a range of regulated and controlled substances. In the timber industry, DART-TOF-MS can discriminate between woods from closely-related tree species that other methods are unable to distinguish. Learn more here: [Bruker DART-MS](#)



Supporting the fight against counterfeit pharmaceutical drugs

Counterfeit drugs, containing no or undesired amounts of active ingredients are a global problem. Many customers and government authorities are closely examining whether a global testing of drugs is possible. Bruker provides a full portfolio of instruments and solutions for all needs and all budgets. Benchtop powder X-ray diffraction and FT-NIR spectrometers are key for a rapid verification of authenticity when and where needed. One major benefit of FT-NIR spectrometers like Bruker’s MATRIX-F system is that they can be taken into the field. Should further analysis be required, the products can be analyzed by a combination of high-resolution NMR and MS as well as high-end powder X-ray diffraction. Learn more here: [Bruker Counterfeit Drugs](#)



BRUKER APPLICATIONS Improving Recycling

Bruker supports scientists at companies across the world in understanding material properties, and our solutions are helping recycling become a greater tool for a more sustainable future.

Recycling of polymers and plastics

Life without plastic products is hard to imagine. In Europe alone, more than 60 million tons of plastic are produced annually. Roughly 50% of these are disposable products that end up as waste after use. The recycling of polymer and plastic materials is a challenge in many aspects and solving it starts by viewing these plastics not as waste, but as a new and untapped resource. When medium-sized and large polymer parts are disposed of (e.g. automotive components), it is important to sort them by plastic type for recycling. In order to obtain an acceptable recycled product, different polyamides must be reliably differentiated, since the quality of the new product depends directly on the purity of the recycled material. FT-IR spectroscopy offers an inexpensive, on-site, and easy-to-use approach to perform chemical analysis of polymers and plastics. Learn more here: [Recycling of Polymers and Plastics](#).

Identifying scrap metal for recycling

Scrap metal recycling involves the recovery, sorting and processing of various metals (e.g. iron, steel, lead, zinc, gold, aluminum and copper) so that they can be reintroduced as a raw material in the production of new goods. Bruker's S1 TITAN handheld XRF is a fast and reliable method used for sorting valuable ferrous and non-ferrous metal scrap. It can also provide full chemical composition of scrap metal and detect unwanted or "tramp" elements in just a few seconds. Learn more here: [Bruker Scrap Metal Recycling](#).



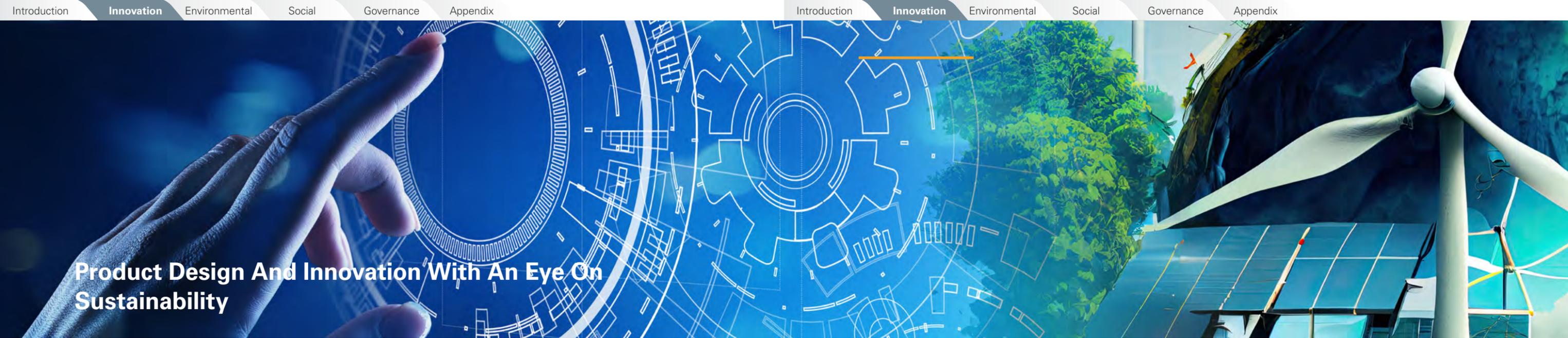
Screening for restricted hazardous substances (RoHS)

With the increasing presence of electronic devices, electronic waste is also being produced faster than ever before. In recent years, the EU and other developed countries have established regulations to promote recycling of e-waste and reduce the health and environmental risks associated with the increase in e-waste generation. The Restriction of the use of certain Hazardous Substances Directive (RoHS) is one of those rules aimed at reducing hazardous material from entering e-waste streams by restricting their use in electronic equipment. These restricted materials include: heavy metals (lead, mercury, cadmium), hexavalent chrome, polybrominated flame retardants (PBB and PBDE) and phthalates. X-ray fluorescence (XRF) offers a fast, non-destructive method of screening for these restricted elements. Small spot analysis is important for successful analysis, since the analysis beam must match the sample size which makes M1 MISTRAL micro-XRF a perfect choice for RoHS screening. For RoHS screening selectable collimator between 0.4 mm and 1.5 mm allows accurate analysis on individual components and cables, as well as bulk samples (metals, solder, raw materials) and large circuit boards. Learn more here: [Bruker Restricted Materials Screening \(RoHS\)](#)

Enhancing landfill mining

A new approach to waste management has led to the idea of landfills as 'mines' of raw resources. The benefits are both environmental (to reclaim and improve landfill sites) and economical (to recover and recycle materials). The process involves excavating, separating, and treating waste. In the context of an environmental impact assessment of landfill waste undergoing treatment and processing, a nuclear magnetic resonance (NMR) spectrometer, the Bruker Avance II 400, supports researchers to study the composition of the secondary products thereby creating the foundation for future landfill mining activities. Learn more here: [Bruker Recycling Waste Plastics Recovered from Landfills](#)





Product Design And Innovation With An Eye On Sustainability

Chromatography-free mass spectrometry

Chromatography is the process of separating a mixture of chemical substances, pulling out the individual components that make up the mixture to be thoroughly analyzed and is a widely used analytical technique with a range of applications. However, the process is associated with the use of chemicals which can damage the environment and put those working with the method at risk of exposure to dangerous materials.

In response, in 2023 Bruker introduced the unique triple-quad (TQ) mass spectrometer EVOQ DART-TQ+, a high-performance workhorse tool that enables straightforward routine analysis from simplified tuning and method development through data analysis and report generation for improved efficiency, productivity and sustainability. Featuring the first and only fully integrated DART™ (Direct Analysis in Real Time) ionization source, the EVOQ DART-TQ+ eliminates complex and time-consuming gas or liquid chromatography for many point-of-need routine workflows. Learn more here: [Bruker Chromatography-Free Mass Spec](#)



EVOQ DART-TQ+

BEST Cleantech Technologies make Green Energy even cleaner

BEST Superconductors could replace permanent magnets in high-power offshore wind turbines. The novel efficient, smaller, and lighter-weight design would reduce the overall material use and drastically reduce the application of most rare earth materials in future high-power wind turbines. Bruker recently delivered high performance metallic superconductors for a wind turbine development in the US.

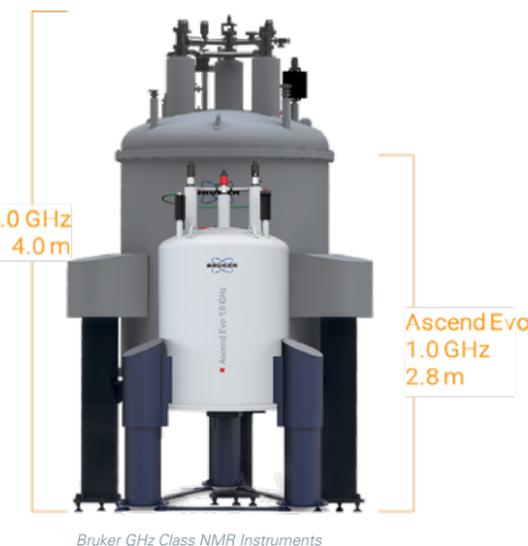
Furthermore, Bruker superconductors are applied for the magnetic confinement of fusion power plants potentially enabling a clean, abundant, sustainable, efficient and safe energy source. Bruker recently received ~\$50M of multi-year orders to supply key technology components for major fusion projects in Europe and Asia.

Learn more here: [Bruker Magnetic Confinement Fusion Technologies](#)

Development design guidelines for sustainability

These guidelines seek to reduce the environmental and social impact of our products throughout their entire lifecycle. These guidelines cover aspects such as material selection, conscious use of natural resources, energy efficiency, waste reduction, user satisfaction and social responsibility. By following these guidelines, we not only demonstrate our commitment to sustainability, but also create value for our customers, stakeholders, and the planet.

Sustainable design in practice with our Ascend EVO 1GHz NMR Instrument: Our latest development in magnet technology significantly reduces the physical footprint and space requirements of our 1GHz magnet systems compared to its predecessor (see image to the right). It also reduces liquid helium consumption of the system by almost a factor of 3 as compared to the previous technology. As Helium itself is a limited global resource and the liquification of Helium is an energy intensive process, this is a two-fold effect. Also, the new technology eliminates the need for continuous operation of an electrical pumping system, which reduces the energy consumption for the operation of the NMR system. Learn more here: [Bruker Ascend NMR Magnets](#)



Bruker GHz Class NMR Instruments

Sustainability in X-ray technology (µS DIAMOND)

The latest µS DIAMOND II diamond anode microfocus source produces an X-ray intensity equal to a typical 1.2 kW rotating anode generator. Its low energy consumption, no cooling water and maintenance free operation make it an environmentally friendly option. The modern microfocus source µS DIAMOND II requires only 165 W of total power consumption, achieving significant energy savings. It has an air-cooled X-ray source technology which combines the highest intensity with the convenience of water usage-free and maintenance-free operation: ultimate up-time without hassle; no filament changes, no anode refurbishments, no ferro seal or water seal replacements.

These factors typically save >125k € in the total cost of ownership over 10 years, making the µS DIAMOND easy on the wallet and the environment. Learn more here: [Bruker SC-XRD Sources](#)



µS DIAMOND II

We Believe That Each End Should Be The Beginning Of Something New

At Bruker, we believe that the end-of-life (EOL) phase is an integral part of the product life cycle. It is a critical step in which we consider the entire product's life cycle, from design through re-use, recycle, and disposal, to minimize the impact on the environment and our customers.



Product design for sustainability

For parts of our business, our design phase focuses on creating products that are sustainable and can easily be retired at the end of their life cycle. We carefully consider the materials used, the manufacturing process, and the environmental impact of each of our products. We include a mandatory assessment of the environmental footprint of new products in our product lifecycle management process. We also work with suppliers who share our vision for sustainability and responsible product design.

End-of-life cycle of our products

Once a product has reached its End-of-Life (EOL) date, we introduce a program to discontinue sales of the product to new customers. We continue to support existing customers through an end-of-support (EOS) date. During this phase, we ensure that customers can purchase any spare parts required to maintain their product's stability and performance. We also provide information on the available alternatives to the retired product.

End-of-support

After the EOS date, we discontinue issuing any new updates, patches, or bug fixes for retired products. However, we continue to offer support services such as technical assistance, troubleshooting, and replacement parts for a limited period. Our support team works with the customers to ensure that they have a smooth transition to alternative products or services.

Disposal of products

In certain cases, our EOL process includes responsible disposal of retired products. We work with or refer our customers to certified third-party disposal agencies to recycle, refurbish, or dispose of these products safely, efficiently, and in an environmentally safe manner.

In certain instances, and for some products, we offer trade-in programs to customers. Parts of the returned products may be recycled and reused in other products or donated to research institutions.

Environmental Report

At Bruker, we understand that improving environmental sustainability is the right thing to do. It is essential to ensure a healthy and sustainable planet, as well as to enable a growing business environment for the future. We recognize that our products and actions have an impact on the environment and we focus our efforts on areas where we expect to make the largest impact. Our technologies are used across industries and research fields to better understand the environment and achieve sustainability improvements and, in many cases, we have or are adopting those improvement ideas in our operations.

By measuring and reporting on our environmental progress, we hold ourselves and our partners accountable for our environmental business practices. Through this report, we commit to healthy business practices which serve to safeguard natural resources, minimize waste, increase our use of renewable energy, reduce emissions, and promote sustainable manufacturing processes across our business.

This section highlights our efforts to support environmental sustainability and contribute to a cleaner and greener world.



Energy Consumption

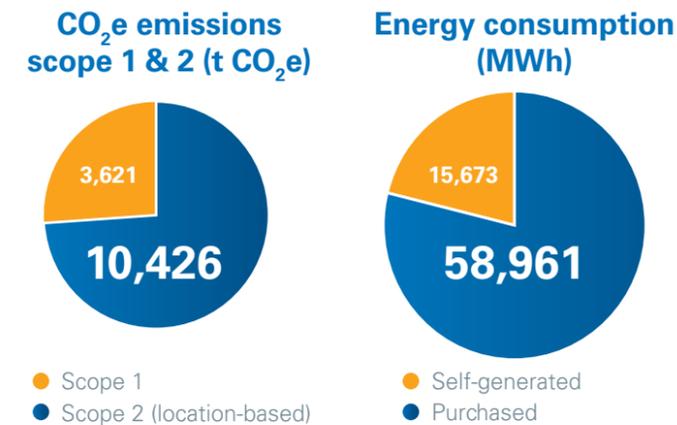
Tracking CO₂e emissions and energy consumption

Energy consumption is the main source of CO₂e (carbon dioxide equivalent) emissions at Bruker. As such, we measure energy consumption closely to identify principal consumers in our ecosystem and develop steps to increase our energy efficiency and reduce energy demand and CO₂e.

CO₂e emissions are generally categorized as gross direct Scope 1 and Scope 2 emissions, each measured in metric tons of CO₂e¹. Scope 1 includes any emissions that are emitted by our generation of heat and power, release of fugitive emissions due to the use of refrigerants, and fuel combustion of our vehicle fleet. Scope 2 emissions are related to purchased heat and power.

In this section we report the total level of energy consumption by Bruker Corporation, as well as our share of renewable energy sources and purchased grid electricity. Total energy consumption includes electricity, heating, cooling and steam.

Please note that CO₂e emissions and energy consumption are highly company-specific and depend on a variety of factors, such as the overall scale of operations, the degree of vertical integration along the value chain, the production processes used, the location of facilities, and the approach to energy management.



¹The calculation for CO₂e emissions is based on the worksheet from IPCC Guidelines for National Greenhouse Gas Inventories. Scope 2 emissions are calculated based on Scope 2 Guidance by Greenhouse Gas Protocol. The Global warming potential (GWP) values relative to CO₂ for a 100-year time horizon are taken from the Fifth Assessment Report (AR5) from Greenhouse Gas Protocol. The location-specific carbon intensities used are provided by Ember Climate.

Our facilities and production sites aim for environmental sustainability

Projects to ensure environmental sustainability are carried out across many of our facilities and production sites, both for existing locations such as the campus in Ettlingen, Germany, as well as new locations such as our second facility in Bremen, Germany.

We have made significant investments at our campus in Ettlingen for environmentally friendly infrastructure to meet stringent German energy efficiency requirements. This includes overhauling the electricity supply, air compressing systems, heat recovery systems, refurbishing & renovating the building itself and a switch to more efficient lighting. The initiative has resulted in a 34% reduction of heating related CO₂e emissions as well as a 70% reduction in compressor related energy consumption, and has improved the facility's safety and reliability. Additionally, we are completely refurbishing our building in Ettlingen, known as 'the Tower'.

Furthermore, the new Bruker CALID facility in Bremen, Germany, was planned by the Fraunhofer Institute for Production and Automation (IPA) and optimized for efficient, high throughput mass spectrometry (MS) production. It is defined as a sustainable building according to leadership in energy and environmental design (LEED) standards. Some key features include regenerative heat recovery to recycle waste heat from production, photovoltaic solar energy and charging stations for electric cars and bikes.

Our facilities and production sites aim for environmental sustainability (cont.)

At our facility in Karlsruhe, Germany, significant investments to improve the environmental sustainability have been made. Most significantly, the share of renewable energy for the production processes has been increased resulting in emission savings of ~1,500 t CO₂e/year. Furthermore, the building infrastructure was refurbished by replacing the piping and ventilation systems, as well as installing thermal insulation, new windows, LED lights and occupancy switches. These changes have resulted in an additional reduction of 188 t CO₂e/year.

Our Berlin facility has completed the planning and approval process for a photovoltaic unit with 300 kWp capacity which will be built in 2023. The vast majority of the generated energy will be self-consumed, which will result in a significant reduction of purchased electricity.

Our campus in Fällanden, Switzerland has undergone significant renovation to improve its energy efficiency. We are proud to be the first company in the city to join the new ARA Fällanden heating network. In the majority of our buildings in this campus, we have pioneered the use of wastewater to power heating. The remaining buildings are heated with environmentally friendly biogas. As the largest company in the area, we act as a role model, with other companies and private housing constructors looking to replicate our approach for their energy supplies. Across the campus, we have reduced our CO₂ emissions by 400 tons to almost zero and, aside from the initial capital expenditure, the ongoing costs of the wastewater heating system are minimal. Improvements made to the compressed air system at this site have driven increased energy efficiency. The heat generated by the compressed air system is now also used to power the water heating system.

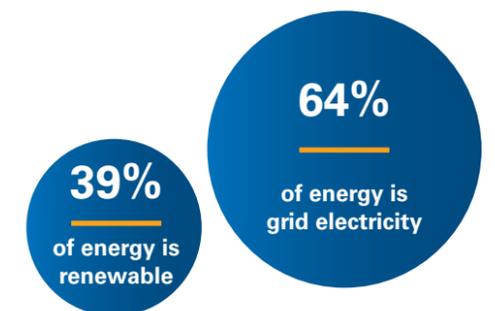
In addition, in our Santa Barbara facility we installed LED lighting, which lowers our CO₂e emissions by ~277 tons.

Our impact on emissions and energy consumption

For FY2022, Bruker Corporation produced 14,047 t CO₂e in total, of which 26% is related to direct scope 1 emissions. Approximately 93% of direct emissions originate from our BSI businesses, which generate over 90% of our revenues. With regards to scope 2 emissions, 21% of the indirect emissions originate from BEST business activities. The main source of CO₂e emissions is the use of power (67%) followed by heat (20%). Our scope 2 emissions are significantly higher than scope 1 as Bruker purchases more energy externally than that it generates internally, e.g. 64% of all energy used is purchased grid electricity. Bruker's total energy consumption in 2022 was 74,634 MWh.

As a result of our significant production footprint in Europe, Bruker's European facilities are our main consumers of energy. Importantly, the share of green energy purchased and generated on site is 44% and ranks among the highest of all geographic regions within Bruker. This is particularly true for our BEST group which uses 88% green energy at its Hanau, Germany site. Overall, the share of renewable energy used by Bruker is 39%. Most production facilities are located in countries with a low carbon intensity energy mix and are owned by Bruker while some production facilities in high carbon intensity countries are leased by Bruker. We are assessing the emission levels generated by our leased assets at this time.

In the process of producing superconducting wires and particle accelerator components and systems by our BEST group, certain high energy intensive production steps create high energy demand. This is particularly challenging in processes related to raw material and alloys used in the final wire size impacted by a series of required heat treatments and wire drawings. Generally, our CO₂e emissions in Bruker-owned facilities are comparably low as a larger share of energy consumed occurs in leased production facilities. We continue to invest in self-generated solar energy and source the remaining energy needs with 100% renewable energy. Our goal is to continue the transition to renewable energies as fixed term traditional energy contracts end.



Rethinking Waste As A Resource

The generation of waste has evolved into a pressing global issue, with far-reaching consequences for the environment and human well-being. As the global population grows, the amount of waste produced continues to rise, creating a daunting environmental challenge. Paradoxically, amidst this crisis, waste is emerging as an untapped reservoir of valuable resources. The realization that waste can be transformed into a source of sustainability is gaining prominence worldwide.

We report the total amount of waste, which is defined as a substance or material that is in solid state and for which it is intended or required to undergo treatment. We differentiate by hazardous and non-hazardous waste and the recycling share. Furthermore, we disclose the number of spills and the quantity of leaked hazardous waste.



Why we track waste generation

Our goal is to transition from mitigating the negative impact of waste once generated to proactively preventing waste and managing remaining waste as a resource. Reporting a holistic overview of our waste generation enables us to actively monitor and manage our waste streams. We can then identify opportunities to prevent waste from being generated and to increase the recycling rate. Furthermore, we actively manage and mitigate the risks related to hazardous waste.

Our impact on waste

Total waste generated by Bruker Corporation in FY2022 was 2,896 tons. This includes 317 tons of hazardous waste, of which 16% was recycled in 2022. The remaining waste is sent for further processing to accredited waste management companies, in line with local applicable regulation. The vast majority (90%) of our non-hazardous waste is re-used, recycled, recovered or sent for incineration. We estimate that 261 tons of our non-hazardous waste ends up on landfills and other forms of disposal, which represent less than 10% of our total non-hazardous waste generation.

During the year 2022 no spills were reported and there was no aggregated quantity of reportable spills or quantity recovered.

Waste generation is mainly related to production processes

Due to the metal and metal alloys processing requirements to produce superconducting wires, the BEST group generated 56% of our total waste and 71% of our hazardous waste. While generating waste is both an economic and an environmental challenge, we constantly strive to reduce waste in our processes. For non-hazardous generated waste, approximately 90% is recycled internally within our BEST operations. Chemicals are recirculated whenever possible and allowed, but spent chemicals are treated as hazardous waste as they contain aqueous and metal salt crystals.

In our BSI groups and more specifically where consumables are being used for sample testing in a lab environment, there are various regulations concerning the treatment of materials after usage. We have strict quality control processes in place to ensure adherence to applicable regulations. We work under carefully monitored conditions that address the environmental sustainability in each of these lab environments.

We continue to monitor our absolute and relative waste levels through effective environmental management systems and actively continue to explore solutions to reduce, re-use or recycle waste generated through our operations.

Water As A Truly Precious Resource

Water is a fundamental resource for life. Population growth and climate change are driving water scarcity in certain regions, while flooding poses a significant challenge in others. As a global company, we work to balance water consumption and wastewater generation in the day-to-day management of our key operating locations.

We report total volume of water consumption as well as wastewater generation across all Bruker sites and facilities. These metrics provide insights on the scale of our impact on the water environment, measures necessary to reduce water consumption and wastewater generation and improve the sustainability of our water cycle.

Water usage

By prioritizing efficient water use and implementing innovative solutions, we strive to ensure a resilient, abundant water future for all. In situations where the generation of wastewater is unavoidable, we ensure that the quality of the discharged water is in line with applicable (local) regulations.

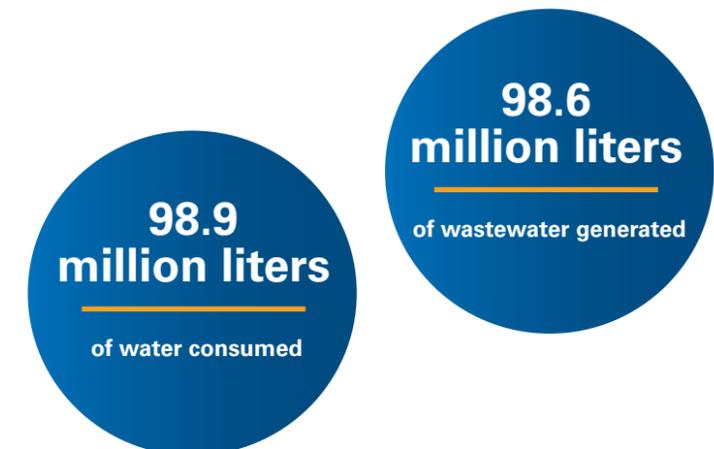
Total water consumption by Bruker Corporation for FY2022 was 98.9 million liters water, which is equal to 39 Olympic size swimming pools. Our generated wastewater for FY2022 was 98.6 million liters.

Certain production processes drive water consumption

Due to the energy and resource intensive nature of superconducting wire manufacturing, our BEST group consumed 37% of the total water consumption of Bruker Corporation. BEST's production involves significant amounts of heat, after which products need to be cooled down through the use of water. Metal surfaces are chemically etched with acid, methanol, and oxidizer, which are subsequently rinsed with water, resulting in higher water consumption that cannot be recycled, but is neutralized in a tank and disposed of according to environmental protection agency standards.

Our BioSpin group also has production processes that consume significant amounts of heat, which results in BioSpin consuming 27% of the total water consumption of Bruker Corporation. Water consumption is continuously monitored, optimized and opportunities in the re-use of cooling water are evaluated. As within all our BSI groups, BioSpin has a strict quality process in place for the discharge of wastewater which are designed to comply with all local applicable regulations. This quality process is certified via the ISO14001:2015 standard for its largest production facilities.

For all of our business groups we remain committed to the careful use of this precious resource and to continue to assess our production processes to identify opportunities to reduce water consumption.





Cooling Liquid Recovery and Recycling

Cooling liquid management

At Bruker, we prioritize sustainable practices in all aspects of our operations, including the handling of cooling liquids used directly in our production processes. We understand that cooling liquids are vital to our manufacturing process but also pose potential risks to the environment and human health if not properly managed. We have introduced a wide range of measures designed to reduce and/or recover/recycle cooling liquids wherever possible.

Reduction

We continuously strive to reduce the amount of cooling liquids used in our manufacturing process.

- Continuously improving the efficiency of our production process to minimize waste and reduce the need for cooling liquids.
- Regularly reviewing our processes to identify areas where technical cooling liquids can be eliminated or substituted with less harmful alternatives.
- Providing training to our staff to raise awareness of the importance of reducing cooling liquid usage and encouraging them to suggest ideas for reducing cooling liquid consumption.



Recovery and recycling

We are committed to recovering and recycling cooling liquids wherever possible.

- Capturing and recycling cooling liquids wherever possible. For example, we use gas recovery systems to capture cooling liquids during the manufacturing process and reuse them where appropriate.
- Ensuring that all cooling liquids are correctly stored and maintained to prevent leaks and wastage.
- Regularly checking our equipment and systems to ensure safety and integrity of our production facilities.

Waste Management

We are dedicated to reducing the amount of waste generated from the handling of cooling liquids. To support this commitment, we have implemented measures such as employee training and robust quality control processes.

Cooling Liquid Recovery and Recycling

We are committed to reducing our own demand for cooling liquids and with Heliosmart we enable our customers to recover up to 85% of their helium usage.

Our BioSpin group has invested \$ 9.5 million in new and improved helium recovery and reliquefaction facilities at our magnet production plants in Fallanden, Switzerland, and Wissembourg, France. These facilities allow us to recycle about 50% of the helium used in the production plants. We also continuously improve the design of our superconducting magnets to be more compact, reducing boil-off and thus decreasing the demand for helium and nitrogen during production.

During the 2020-2022 period, our BEST group invested \$1 million for liquid helium recapture in Hanau, Germany. This process enables the capture of about 90% of the liquid helium used in production. In addition, as a group, BEST has established cross-site consolidated testing to minimize the usage of liquid helium.

Furthermore, to enable our customers to reduce their demand for helium in operating our products, we developed the Heliosmart Recovery solution, a compact, easy-to-site system that can be retrofitted to collect helium gas boil-off from installed NMR magnets with recovery rates of 80% – 85%. The recovered helium gas is stored in high-pressure cylinders and can be utilized at local or regional helium reliquefaction facilities to support of a more sustainable ongoing helium economy.



Social Report

At Bruker, we recognize that our social impact extends beyond our internal operations and supply network. We believe our business solutions can positively impact society and, in turn, lead to our further success.

We are committed to enabling scientists to make breakthrough discoveries and develop new applications that improve the quality of human life. Our employees are a critical component of that mission. We endeavor to attract, develop, and retain top talent by offering our employees a challenging but rewarding work experience, as well as competitive compensation and benefits. Bruker prioritizes measures that strengthen diversity and inclusion, enhance employee well-being, increase safety, reduce risks and promote community engagement. Furthermore, we strive to create a work environment that promotes integrity, respect and trust among our employees.

Our Colleagues are our Greatest Asset

Number of employees

Attracting new talent and retaining our valued employees is an important step towards sustainable development.

As of December 31, 2022 we had approximately 8,525 full-time employees worldwide, of which approximately 1,410 were located in the United States. These figures were 7,765 and 1,230 respectively, as of December 31, 2021.

	Numbers of Employees	
	2022	2021
Assembly, Test & Service	3,990	3,690
Selling and Marketing	2,070	1,900
General and Administrative	985	885
Research and Development	1,480	1,290
Total	8,525	7,765



Share of employees eligible for variable pay

At Bruker, we believe in pay for performance and offering financial rewards to employees for their contribution to the success of the company and their performance relative to established corporate financial and individualized goals. We have established incentive programs to recruit, motivate, and retain our highly valued employees at all levels of the organization.

Over 55% of our employees are eligible to earn bonuses under variable incentive pay programs which provides a clear connection to employee work performance and corporate performance. Employees can see how their work matters and is connected to business performance.



A High Standard: Employee Safety

Incident rate

We are committed to protect our employees and provide a safe working environment. Safety incidents of all severity are opportunities for us to learn to improve the environment to ensure employees return home safely at the end of every day. At Bruker, our incident rate measures the extent of significant safety events that occur. The rate of days away due to incidents indicates the impact of those significant events on our productivity.

In FY2022, Bruker reported an overall incident rate of 1.3 per 200,000 working hours and 0.86 for incidents resulting in days away.



Increasing Safety Awareness

The health and safety of our employees is a top priority. Our commitment is underlined by initiatives such as Employee Health and Safety Week.

Our independently audited health and safety protocols are standard across all sites. We sponsor wellbeing initiatives, such as step count competitions and regular wellness reminders to promote a healthy lifestyle for physical and mental wellbeing.

One initiative, held in August 2022 at our Penang, Malaysia manufacturing facility, EHS (Employee Health and Safety) Week was held, with a wide variety of activities aimed at enhancing EHS awareness among employees. These activities included: pharmacy/ health products promotion, basic health screening, Zumba sessions, healthy eating promotions, training on first aid, CPR, and AED, safety supplies promotion by our safety products suppliers, fire extinguisher training as well as a site wide emergency drill exercise involving local Fire Department and Rescue team and Malaysian Red Crescent. During the series of events, we also showed environmental awareness videos related to sustainable waste management and energy conservation.



Joshua Harnanto



“**Make Safety Personal**” – that is the campaign that we started 3 years ago at our BEST facility in Carteret NJ, USA. This is the next phase of our Safety Journey to Zero Incident after getting our certification in ISO 45001. It is about engaging and recognizing everyone at every layer of the organization to drive culture and behavior of Safety-First. The campaign has lowered and sustained the Incident Rate Resulting in Days Away from 3.0 to 0.6, which is better than the wire-drawing industry benchmarks. I am thankful and proud to be a part of an organization that is committed to the health and safety of its employees.”

Product Safety

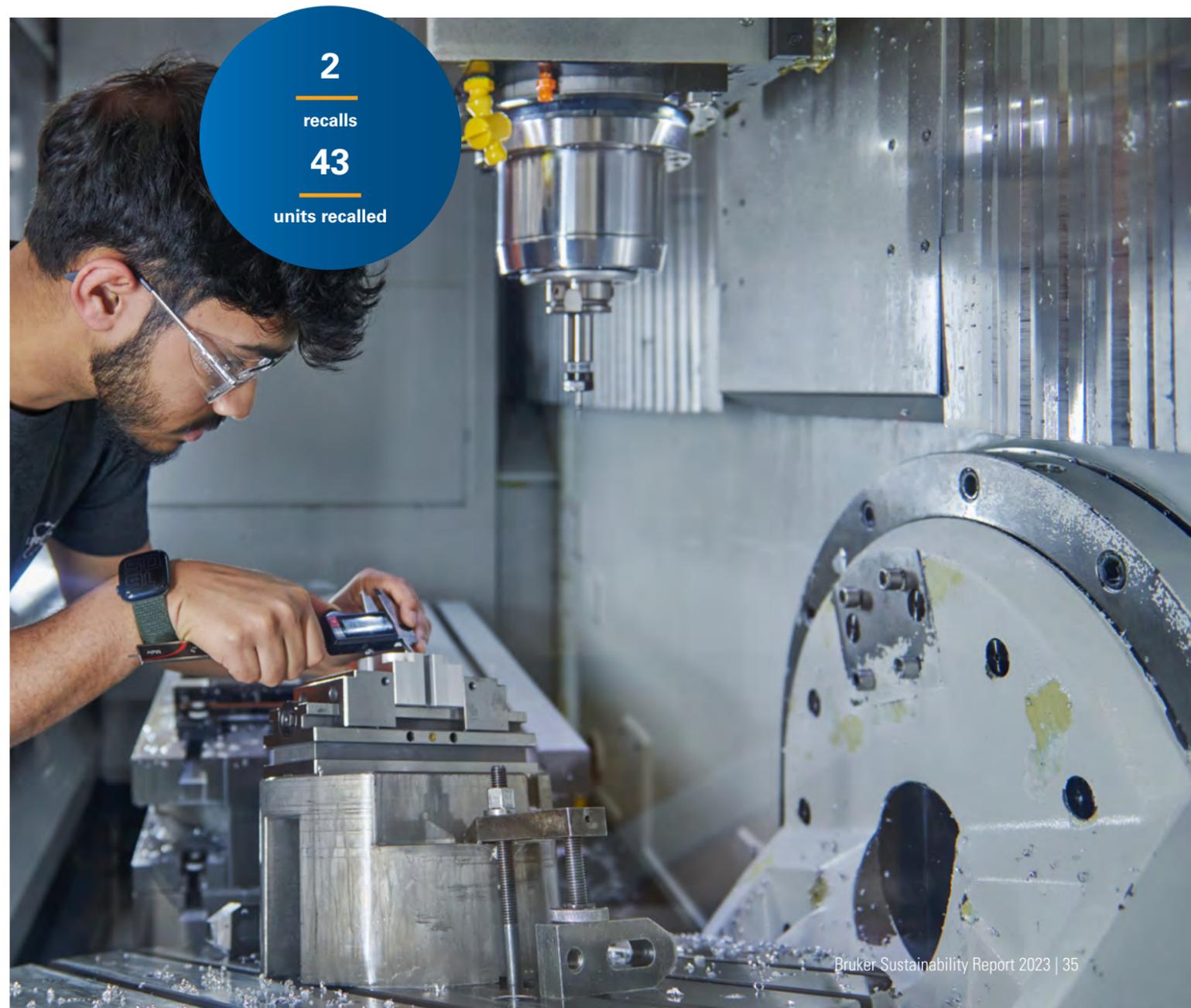
Product safety & recalls

As part of the health and safety of our employees, customers and the environment, the safety of our products is very important. We report the number of voluntary and involuntary recalls which have removed our products from the market for safety reasons. This helps us to detect safety issues, continuously improve and ensure a high standard for our products. Actively monitoring product safety is also part of managing risks to our reputation.

In 2022, Bruker had 2 product recalls, which resulted in 43 recalled units. Bruker has a Quality Management System in place for all business divisions that governs the process of malfunctioning products from initial detection to sharing information with relevant (governmental) bodies. We store all relevant documents and communication within this tool.

Both recalls were managed swiftly and diligently in accordance with relevant regulations as well as our defined processes and in coordination with relevant institutes and governmental bodies.

Product safety and high standards are of utmost importance to us and we continuously strive to improve product testing to detect potential quality and safety issues as early as possible in the process.





Diversity and Inclusion

Demographic and gender diversity

Diversity and inclusion are essential elements of our core values and are crucial to a dynamic, entrepreneurial working environment. In this section, we report the gender and diversity of members of our Board of Directors as well as US-based employees for which we have available data.

We believe that Board diversity is important because diverse backgrounds bring different perspectives to the business challenges we face as a growing organization. Similarly, diversity of our employee base ensures we address business opportunities and challenges leveraging the experience, cultures, and perspectives of our employees, befitting a global organization.

The Bruker culture reflects a rich fabric of cultures and experiences, including many engineers, scientists, and technologists drawn from academic, research, and science backgrounds. Accordingly, our employee gender diversity is comparable to benchmarks identified by the US Census bureau which reported in 2021 that females comprise 27% of STEM workers.

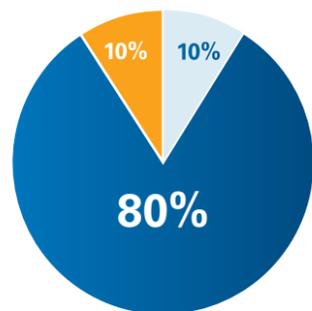
Female empowerment at Bruker
We support women to become the leaders of tomorrow.

WomenInSTEM
We partner with The Society for Women in Natural Sciences (WiNS). Their mission is to empower women in natural sciences and to work towards gender equality in the workplace and during their studies. Bruker sponsored an event focused on doing a teaching degree program at ETH Zurich, as well as pursuing a career teaching outside of academia. A Bruker Application Scientist was one of the four panel members and she shared her personal experiences with teaching.

Bruker is committed to an environment where all employees have an equal opportunity for employment, growth and development. We recognize that employees with demographic, gender, age, and/or sexual orientation diversity bring valuable experiences to the work they perform.

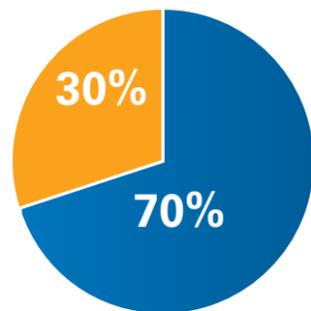
We welcome underrepresented minorities and the LGBTQ+ community to apply, work and prosper at Bruker. Bruker's philosophy is not to discriminate on the basis of age anywhere in the world, including in countries where age discrimination is present. Our approach is to embrace employees in all phases of their work career, including as they transition into retirement through full-time or part-time work arrangements.

Demographic background diversity of BoD¹



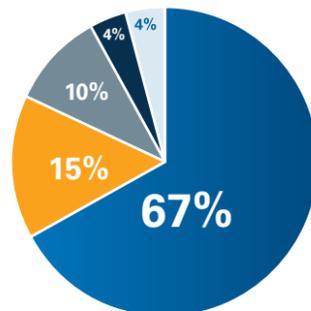
● White
● Asian
● Did not disclose

Gender diversity of BoD¹



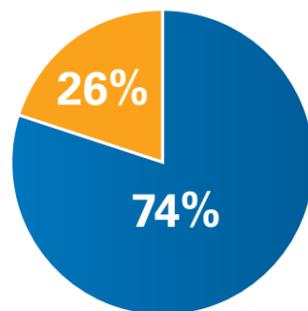
● Male
● Female

Demographic background diversity of US workforce



● White
● Asian
● Hispanic or Latino
● Black or African American
● Other

Gender diversity of US workforce



● Male
● Female

¹as of June 2023

Employee affinity groups

At Bruker, we focus on promoting diversity, inclusion and belonging across our organization. Our employees come from diverse backgrounds all over the world. We are united by a shared purpose — innovation with integrity. We hope that our daily work inspires and impacts global scientific research — and our diverse and dynamic team of people inspire each other to achieve their full potential. We build cross-functional teams to support collaboration and enable the creation of new ideas by actively identifying and recruiting talent with diverse professional experiences, skills and backgrounds. One of these programs which brings employees together across the organization to focus on diversity is Women@ Bruker. A group of employees came together in 2022 and developed a mentor program to form professional relationships for many women at Bruker to support them with their development and advancement opportunities.

» May Chu

“Hi! My name is May Chu. I was born in Malaysia and moved to Singapore to start my accountancy career and I now work in Karlsruhe, Germany. I like to start my day with a beaming smile when I step into the office. I greet everyone in the morning and begin my journey in an energetic and positive mood! I have several colleagues from Poland and Germany reporting to me. Different cultures, different personalities, and everyday challenges are much easier to deal with in this happy mood. I love working in such an enriching and fertile atmosphere. I strive to ensure that my many years of knowledge and experience, particularly in change management, contribute to Bruker’s productivity and efficiency.”



» Ravikumar Iyyamperumal

“Hi! I am Ravikumar Iyyamperumal, from Bangalore, India, and I’ve been working at Bruker AXS as a Senior Application Scientist since 2018. I have a Ph.D. in Chemistry and worked as Post-Doctoral Fellow at the University of Texas and as a Senior Research Scientist at Reliance Industries Limited. Bruker gives me the priceless opportunity to learn every day and keep updated in my fields of interest, like X-ray diffraction and fluorescence. It brightens my days! While performing demonstrations and supporting customers in choosing and optimizing the best solution, I always stay positive, learn and assess the situation quickly and present new ideas for a bright result.”



» Gisela Pinto

“Hi! I am Gisela Pinto, from Lisbon, and I work remotely as a Customer Success Specialist at Bruker AXS. I am blissful because I found a great team, different cultures, and collaborative work in a multinational environment. I have a degree in Chemical Engineering and I am passionate about Chemistry! Entering Bruker in the middle of the covid pandemic made me realize how crucial it is to proactively maintain key relationships and ensure customers feel supported. Speaking Portuguese, English, Spanish, and French and being flexible helps to quickly embrace different types of demand. Customers need support and knowledge over the long haul.”



Employee Development

Training and development programs

Bruker has initiatives and programs to attract, develop and retain top talent. These initiatives are often created for specific purposes with certain employee populations in mind. Some of these initiatives include leadership development programs, online platforms supporting a variety of educational topics, and an educational reimbursement program. Several development programs leverage competency-based performance assessments to identify high performing and high potential employees for advancement into key positions. These individuals are provided with tailored mentoring, skill building, and project opportunities to strengthen their capabilities for career advancement as future leaders across the organization.

Bruker has a development program that provides talented employees an opportunity to sharpen their leadership skills over the course of a year by participating in a defined set of learning modules. Each participant is supported by a mentor during the program to facilitate their learning experience. The development program builds on the cornerstones of the cultural journey program that was established in 2021 and 2022. The focus on our company culture continues through a network of Cultural Champions organized in working groups with a focus on creating an inclusive workplace, development, and communication.

Additionally, Bruker has a Development Academy that ensures the continued growth of high potential employees and leaders. The program offers three unique learning paths depending on the aspirations of the employees. Future Leads is a path for employees with strong performance who are interested in and capable of developing into people leads or subject matter experts. First Time Managers is a two-year path for employees becoming people leaders. This path supports their development of leadership skills such as communication, change management and building teams. Manager 2.0 supports experienced people leaders in their continuous journey of development.

An online learning platform was successfully piloted in 2022 and is expanding. Based on employee feedback, specific training paths were created to support technical skill development and the advancement of employees. Modules were also integrated into quarterly training sessions to facilitate learning and knowledge sharing.

Bruker recognizes that our employees' education and knowledge are critical to their success and the success of the company. An Education Assistance Program encourages employees to maintain and improve their job-related skills through formal education. Employees select courses related to their current job responsibilities or to roles they aspire to attain.

Lastly, Bruker leverages an online platform to deliver and monitor completion of a variety of important compliance topics. The subjects range from code of conduct, harassment prevention, cybersecurity, conflict of interest, safety, and many others.

Sandra Ullrich



"For me, Bruker stands for integrity. We have a very open mindset, and it is ingrained in our culture to approach issues and problems in a solution-oriented and agile way.

We are currently on a journey of renewal, which in my opinion is a necessity. As part of our ongoing journey of renewal, we recognize the importance of customer centricity. Over the past two years, we placed a strong emphasis on continuous improvement to keep pace with our competitors and responding quickly to changing market demands. One thing that sets us apart from other companies is our commitment to innovation, sustainability and supporting our employees in their professional and personal growth. I am inspired by the strong collaboration, creativity and support of the people, especially when things become difficult. Overall, I am proud to be part of a company that prioritizes innovation, sustainability, and agility, and that values its people above all else."

Employee performance review

Employee performance reviews are an important element of our high-performance culture. Such a culture focuses on strong management, establishing clear priorities, providing development, feedback and coaching with the aim to recognize achievement with financial gains.

Bruker has an established global performance management process where direct managers provide regular feedback and coaching to support the growth and development of employees. Throughout the year, managers and employees engage in annual objective setting, mid-year reviews of performance as well as a year-end performance evaluation. The annual process starts each December with the setting of performance goals. In July, managers and employees have a mid-year check-in to review and update goals that may have changed through the course of the year. Lastly, the performance evaluation is conducted in the December – April time frame and is documented in the employee performance review. Managers and employees assess performance relative to the established goals, skills, strengths and areas of development. Conversation is an important element of feedback. Therefore, the culmination of the annual performance evaluation is a 1:1 conversation between the manager and employee where they engage in discussion to reflect on the prior year and begin to align expectations for the coming year.



Making An Impact In Our Community

Community involvement to help others

An important part of our culture is the motivation to help others. This motivation is put into action across our organization through events and programs intended to support the broader community in which we operate.

Girls' Day is a nationwide career-orientation project for girls in Germany, where female students aged 10 years and older learn about professions and subjects of study where women are traditionally underrepresented. In April, Bruker welcomed several girls to our Ettlingen, Germany Campus for the 2022 Girls' Day. The day started with an introduction to Bruker and our new campus followed by live testimonials from female Bruker employees, discussing their experiences, career paths, and why they love what they do. The day concluded with lunch and some time for an informal exchange and discussion on interests and career aspirations. Overall, the event was an overwhelming success, and we are eagerly looking forward to the next Girls' Days, where we'll aim to impart the joys and importance of science on to another group of driven young female students.

A Bruker group in Poland started its Charity Team, a group of employees that actively support a variety of activities to help those in need. Some of the activities provided support to Ukrainians impacted by the ongoing Russia-Ukrainian conflict. Some of these activities included material goods and financial donations for a family relocated to Poland from the Ukraine, and an employee collection to support a Polish humanitarian fund. Bruker matched employee contributions, as well as provided two paid days off to employees participating in volunteer events.

In 2023, the Charity Team facilitated an employee donation, which Bruker matched, for one of Poland's largest non-profit charity organizations, the Great Orchestra. Upcoming events for the Team will include participation in a forest clean up, blood donation and a back-to-school charity where Bruker will sponsor the purchase of backpacks and school supplies for children in need.

Social fundraising Helping others is our motivation

Community engagement and social fundraising are important elements of the Bruker culture, with each business or division taking part in efforts to raise money for worthwhile charities throughout the year. In 2022, our CALID Bremen facility organized a wish tree to be put up at a children's hospice and women's shelter, which allowed Bruker employees to grant the wishes for gifts that were added to the tree. A total of 84 wishes were fulfilled. Alongside this, Christmas donations from Bruker were divided between charities that provide shelter and support to the homeless.

Bruker BEST's New Jersey operation donates regularly to UrbanRenewal org, which provides disadvantaged individuals with skills, for example, on recycling of e-waste, to move into employment opportunities not otherwise available.

Bruker BioSpin in Germany initiated cooperation with AfB for the repair and recycling of electronic waste. AfB is a not-for-profit company with social and ecological business goals employing mainly individuals with disabilities. In addition to the positive social impact, the repair and recycling of e-waste reduces the CO₂e footprint of our IT usage.



Governance Report

At Bruker, we understand that sound corporate governance is essential to ensure ethical and responsible business practices across our business. We are committed to sound corporate governance as the foundation for our long-term reputation and success.

We measure and intend to report annually on key governance indicators, such as governance structure, compliance, ethics, and product safety. These indicators help to ensure that we are taking the proper steps to mitigate risks and protect the interests of all stakeholders, including shareholders, customers, employees, and the broader community.

Our corporate governance practices are regularly reviewed by external third parties to confirm our actual practice performs at the highest levels of standards. Our motto is "Innovation with Integrity" and Integrity is rooted in good corporate governance.

Corporate Governance

Board of Directors

Corporate oversight

Our Board of Directors is elected by our shareholders to oversee their interests in the long-term success of Bruker. Throughout the year, our Board and its committees provide oversight on corporate performance and direction on our business strategy. Our Board meetings include regular sessions with business leaders and executives across our business groups and key corporate functions to gain insights into risks, opportunities, and historical and expected business performance.

ESG oversight

The Board oversees our ESG strategy and key initiatives as an integrated part of Bruker's business strategy and risk management. Certain matters related to ESG are delegated for discussion at the committee level, while other matters span multiple functional categories and areas of oversight and, from time to time, are discussed at the full Board level.

This focus is reflected in our committee charters, which are reviewed regularly to ensure they are up-to-date for current developments.

Board election frequency

Decisions made by our Board have a significant impact on the entire organization, including the direction of our business strategy and sustainable practices. Bruker's Board of Directors consists of three classes of directors with overlapping three-year terms. One class of directors is elected each year for a three-year term. This process ensures business continuity and stability while also allowing for regular shareholder approval or renewal of board members.

BoD members
are elected to
serve a term of
3 years

11.2 years

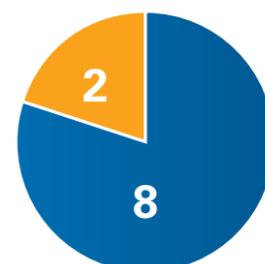
Average Board
Tenure

Average board tenure¹

Average board tenure represents the average length of time members have held their position on the Board. Bruker's BoD average Board tenure is 11.2 years. This reflects the stability of our Board as well as the high level of experience and dedication of our Board members.

Board independence¹

An independent director, in corporate governance, refers to a member of the Board who does not have material interests in the company other than their directorship and is neither part of its executive team nor involved in the day-to-day operations of the company. The purpose of an independent board member is to provide objective, unbiased perspective and judgment on business decisions presented to the Board. At Bruker, the vast majority, 8 out of 10, of our Board members are independent. We believe this is complemented by having our Chairman, President & CEO on the Board to also provide an inside perspective of the day-to-day operations at the board level.



● Non-independent members
● Independent members

Compliance

Compliance structure

Our compliance culture is rooted in the motto "Innovation with Integrity" and our governance practices reflect this commitment. We have always recognized the importance of a strong reputation to our success, which is why we are committed to maintaining the highest ethical standards and complying with all applicable laws wherever we do business.

Our corporate ethics and compliance function is responsible for our Code of Conduct related policies, and processes that govern how our directors, officers and employees interact with customers, colleagues, business partners, regulators and communities, and how we market our products and services. All of our operating companies are required to implement and comply with these policies and processes.

Our Board has general oversight of our compliance program and the adoption of relevant policies and procedures. Under its charter, the Audit Committee of the Board assists the full Board in carrying out this responsibility by reviewing and monitoring our compliance program, including our Code of Conduct. The Board's role in compliance oversight includes receiving regular reports from members of senior management and reviewing and approving policies.

In our Supplier Code of Conduct we reiterate our commitment to "Innovation with Integrity". The Supplier Code of Conduct serves as an important framework for our suppliers to conduct their business in a legally compliant and sustainable manner and to meet our own high expectations. It applies fully to all of our suppliers and their employees and agents (including sub-suppliers and subcontractors).

The charter of the Audit Committee, the Code of Conduct and the Supplier Code of Conduct are available on our website at <https://ir.bruker.com> under the "Corporate Governance" section.

Code of Conduct

At Bruker, we value integrity, respect, and trust. Ethical behavior, equal opportunity, and compliance are at the heart of our business. The words, "Innovation with Integrity" are a call to each employee to pursue excellence in every aspect of our business. It is the cornerstone of everything we do and the basis of everything we stand for as a company. Our Code of Conduct is the foundational document of our compliance and ethics program. It sets forth our commitment to doing business with the highest standards of ethics and integrity. The Code of Conduct applies to every employee of Bruker, across all of our businesses anywhere in the world. It also applies to all officers, directors, contractors and temporary employees of Bruker and our business units. Since the Code cannot address every situation we may encounter as we conduct our business, it provides general guidance for making ethical decisions; certain topics are covered in more detail in separate policies.

The Code of Conduct is provided to all new employees joining Bruker either as new hires or through acquisitions. It is reviewed on a regular basis or as otherwise deemed necessary by our Board of Directors. All employees are regularly required to take Code of Conduct training. In addition, employees are assigned training on various ethics and compliance topics as part of our Compliance training programs. These training programs help all employees to understand their obligations under the law, the expectation to act ethically, and how to manage the risks inherent in their job.

Whistleblower hotline

As a method of monitoring any potential non-compliance with laws or Bruker policies, we have a whistleblower hotline that employees and external contractors can use to report any concerns related to direct activities of Bruker or those conducted within our supply chain network. The organization's whistleblowing procedure is designed to make it easy for workers and external contractors to report concerns, without fear of retaliation. Bruker's whistleblower hotline is provided by an external provider and is available via internet and phone.

Reported issues could relate to our Bruker Code of Conduct, bribery, discrimination or harassment, fraud, theft, travel & entertainment expenses, and similar areas of concern. Reports through the hotline can be made anonymously if desired. All reports are taken seriously and investigated thoroughly. Each report is given to Bruker's compliance department which may launch an internal investigation into the matter. The hotline system provides the ability to reply to the reporter and share the results of the investigation, even if reports were submitted anonymously.

Our Supply Chain Ecosystem

Supplier Code of Conduct

Bruker has adopted a Supplier Code of Conduct which applies to all of our suppliers and their employees and agents (including sub-suppliers and subcontractors). Bruker believes that this Supplier Code of Conduct serves as an important framework for Bruker's suppliers to conduct their business in a legally compliant and sustainable manner and to meet our internal standards of business conduct. It is the responsibility of all Bruker suppliers to comply with the Supplier Code of Conduct and communicate it to all of their employees, and any third parties they may use in support of Bruker's business, unless a supplier has a substantially equivalent, written, fully adopted and actively monitored Code of Conduct.



Materials sourcing

Bruker purchases materials and components from various suppliers that are either standard products or built to our specifications.

Bruker advocates responsibility in supplier sourcing practices. Bruker's suppliers are required to take all necessary and reasonable measures to ensure that all reporting to Bruker is in compliance with the provisions of all applicable laws and regulations, including any requests by Bruker for information.

Bruker is committed to working towards the elimination of the use of minerals emanating from or supporting areas of conflict around the globe.

Please see [Bruker's Conflict Minerals reports](#) as filed with the SEC.

Product Safety & Ethics

Product safety

Product performance and safety is critical to our market position and standing as a company. In the event of a product safety incident, Bruker could be exposed to product liability claims, revenue loss due to damaged reputation, redesign costs, recalls, litigation, or fines. Proper safety procedures, tests, and protocols for products are in place to manage safety risks and assure the strength of our brand.

In FY2022 we incurred no monetary losses as a result of legal proceedings associated with product safety events.



Business ethics

At Bruker, we are committed to doing business not only legally, but with ethics and integrity. We all know it is in the best interest of our employees, business partners and the company if all parties work together to conduct business in an ethical way.

As outlined in our Code of Conduct, at Bruker, we do not tolerate any form of bribery and we do not offer or accept anything of value that is intended to improperly influence a business decision. Any direct or indirect payment (or anything of value) made to any party, including, but not limited to government officials and business partners must be for reasonable and properly documented legitimate business purposes and cannot be for securing an improper business advantage.

Bruker has also adopted a Global Anti-Corruption Policy to reiterate our commitment to full compliance with applicable anti-bribery and anti-corruption laws, including but not limited to the U.S. Foreign Corrupt Practices Act ("FCPA"), the United Kingdom Bribery Act ("UK Bribery Act"), Organization for Economic Co-operation and Development (OECD) Anti-Bribery Convention and similar laws in other countries where Bruker is domiciled or does business and that prohibit improper payments to government officials or to persons doing business in the private sector to obtain a business advantage.

Bruker's Global Anti-Corruption Policy explains our rules with respect to preventing bribery and corruption in our business dealings, complying with international anti-bribery laws and provides guidance on how to act in various situations. As set forth in the policy:

- We do not permit bribery, whether towards private business persons, government officials or from third parties towards our own employees and business transactions.
- We are committed to maintaining accurate books and records for all Bruker transactions.
- We expect the same of all those we work with, including but not limited to sales intermediaries and suppliers.

Bruker is a global company with operations in regions with relatively less stringent government enforcement of business ethics laws. Our strong governance practices across these and other regions of the world mitigate the risk of violations with or without government enforcement.

In FY2022, we had no monetary losses resulting from legal proceedings associated with bribery, corruption and anti-competitive behavior regulation.



Appendix

Forward-looking Statements

Unless otherwise indicated, this report covers our fiscal year ended December 31, 2022.

This report contains certain forward-looking statements based on Bruker's current assumptions and expectations. These statements are typically accompanied by the words "aim," "anticipate," "believe," "commit," "could," "drive," "estimate," "envision," "ensure," "goal," "intend," "may," "might," "mission," "seek," "strategy," "strive," "target" and "will" or similar words or phrases. The principal forward-looking statements in this report include: our sustainability goals, commitments and programs; our social goals, initiatives, programs and objectives; the scope and impact of ESG risks and opportunities; and standards and expectations of third parties.

All of our forward-looking statements are intended to enjoy the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, as amended. Although we believe there is a reasonable basis for the forward-looking statements, our actual results, including the achievement of our targets, goals or commitments, could differ materially. These Forward-Looking Statements are based largely on our expectations and judgments and are subject to a number of risks and uncertainties, many of which are unforeseeable and beyond our control. These risks include, but are not limited to, our ability to achieve diversity, equity and inclusion, ESG and sustainability, and climate change aspirations, as well as those risks identified in Item 1A of our most recent Annual Report on Form 10-K and subsequent quarterly reports on Form 10-Q filed with the Securities and Exchange Commission ("SEC"), which should be read in conjunction with the forward-looking statements in this report, as well as other assumptions, risks, uncertainties and factors identified in this report.

The information contained in this report also is subject to the precision of our data collection and analysis methods, which are subject to future evolution and calibration. Such information is subject to additional uncertainties, as there are limitations inherent in the data collection and analysis methods. While we consider information from external resources and consultants to be reliable, we do not assume responsibility for its accuracy.

Additionally, all numbers referenced are subject to the quality and comprehensiveness of the reporting received by Bruker from internal and external sources and, therefore, are approximate and/ or estimated values. It is also important to note that the availability of data varies from section to section in this report. Our stated aims in this report include aspirational components that may take years or decades to achieve. Bruker cannot assure you that the results reflected or implied by any forward-looking statement will be realized or, even if substantially realized, that those results will have the forecasted or expected consequences and effects. We urge you to consider all of the risks, uncertainties and factors identified above or discussed in this and other reports carefully in evaluating the forward-looking statements in our reporting. The forward-looking statements in our reporting are made as of the date they are made, and we undertake no obligation to update these forward-looking statements to reflect new information, subsequent events or circumstances or otherwise.

Global Reporting Initiative (“GRI”) Index

Bruker has based its sustainability reporting on the Global Reporting Initiative (“GRI”) guidelines. This report was prepared with reference to the specified version of the guidelines. The following tables provide detailed information on the respective GRIs applied.

GRI Disclosure	References and Comments
GRI 102: General Disclosures (2016)	
102-7: Scale of the organization	The data relating to “Number of employees” relates to all individuals who are in an active employment relationship with Bruker, excluding temporary, contractors and interns, at the close of the reporting period. Number of employees within the Bruker organization: 8,525 Page 33
102-16: Values, principles, standards, and norms of behavior	Page 43 Page 44
102-17: Mechanisms for advice and concerns about ethics	Page 44
102-18: Governance structure	Page 43 Page 44
102-19: Delegating authority	Page 42
102-22: Composition of the highest governance body and its committees	The indicator Demographic background diversity of BoD shows the self-disclosure of racial and ethnic diversity of representatives on the Board of Directors (BoD). In June 2023, the Board of directors at Bruker consisted of 80% members who identify as white, 10% as Asian, and 10% who did not disclose their ethnic background. Page 36 The indicator gender diversity BoD shows the share of male and female representatives on the Board of Directors (BoD). In June 2023, the Board of directors at Bruker consisted of 70% men and 30% women. Page 36 Page 44
102-24: Nominating and selecting the highest governance body	The stated value indicates the elections regularity of the Board of Directors (BoD) in years. Every year 1/3 of the BoD members are elected to serve a three-year term, Page 42 This indicator represents the number of board members who are non-executive directors. In June 2023 8 out of 10 are indented Board members Page 42

Global Reporting Initiative (“GRI”) Index

GRI Disclosure	References and Comments
GRI 103: Management Approach (2016)	
103-2: The management approach and its components	Page 44 Page 43
GRI 300: Environmental	
GRI 302: Energy (2016)	
302-1: Energy consumption within the organization	Our energy consumption reports on the total amount of energy consumed operations at Bruker. Our disclosures include energy consumption from the following: <ul style="list-style-type: none"> Power and heat generation Vehicle fuel consumption Purchased, externally supplied power and heat In 2022, Bruker consumed a total of 268,683 GJ of energy. Page 26
GRI 303: Water and effluents (2018)	
303-5: Water consumption	Our water consumption informs about total water consumed by all sites, buildings etc. at Bruker which is provided by third parties. The total water consumption shows the sum of all water that has been withdrawn and incorporated into products, generated as waste, has evaporated, transpired, been consumed, or is polluted to the point of being unusable by other users, and is therefore not released back to surface water, groundwater, seawater, or a third party. In 2022, Bruker consumed a total of 98,9 million l of water. Page 29
GRI 305: Emissions (2016)	
305-1: Direct (Scope 1) GHG emissions	Our disclosures are based in CO ₂ equivalents, which measure greenhouse gases in accordance with the GHG Protocol. Global warming potential is relative to a 100-year time horizon. Our disclosures include emissions from the following: <ul style="list-style-type: none"> Heat generation Power generation Fugitive emissions Fuel combustion Fugitive emissions inform about all fugitive substances that are emitted and intentionally or unintentionally released but which are physically controlled by Bruker. Fuel combustion informs about direct CO ₂ e emissions from combustion of fuels consumed by Bruker’s own vehicles. Scope 1: 3,621 metric tons of CO ₂ e Page 26

Global Reporting Initiative (“GRI”) Index

GRI Disclosure	References and Comments
305-2: Energy Indirect (Scope 2) GHG emissions	<p>Our disclosures are based on CO₂e which include CH₄, N₂O and CO₂ emissions. We have chosen reporting according to GHG Protocol for scope 2 using the location-based method to quantify our GHG emissions. Our disclosures include embedded emissions from:</p> <ul style="list-style-type: none"> • Purchased, externally supplied power • Purchased, externally supplied heat <p>Scope 2: 10,426 metric tons of CO₂e Page 26</p>
GRI 306: Waste (2020)	
306-3: Waste generated	<p>Our waste generation informs about the total weight of waste generated. It is composed of non-hazardous e.g. residual waste, plastic packaging, etc. and hazardous waste and includes waste that is diverted from disposal as well as waste that is directed to disposal. Waste is defined as hazardous, if listed in Annex III of the Basel Convention or categorized as hazardous by national law. Bruker generated 2,896 t of waste in 2022. Page 28</p>
306-4: Waste diverted from disposal	<p>The waste diverted from disposal sums up the total weight of our non-hazardous waste and hazardous waste diverted from disposal that is recovered by preparation for reuse, recycling or any other recovery operations onsite as well as offsite. Bruker generated 51 t of hazardous and 1884 t of non-hazardous waste diverted from disposal in 2022. Page 28</p>
306-5: Waste directed to disposal	<p>The waste directed to disposal sums up the total weight of our non-hazardous waste and hazardous waste directed to disposal that comes from incineration (controlled burning of waste at high temperatures with and without energy recovery), landfilling (final depositing of solid waste at, below, or above ground level at engineered disposal sites) and other disposal operations onsite as well as offsite. Bruker generated 266 t of hazardous and 695 t of non-hazardous waste directed to disposal in 2022. Page 28</p>
GRI 400: Social	
GRI 403. Occupational Health and Safety (2018)	
403-9: Work-related injuries	<p>A rate based on 200,000 hours worked indicates the number of work-related injuries per 100 full-time workers over a one-year timeframe, based on the assumption that one full-time worker works 2,000 hours per year. For example, a rate of 1.0 means that, on average, there is one work-related injury for every group of 100 full-time workers over one-year timeframe.</p> <p>Incident rate at the Bruker organization in 2022: 1.3 Page 34</p> <p>The indicator incident rate resulting in days away informs about how many incidents due to work related injuries and illnesses resulted in at least one lost day of work per 200,000 working hours. The indicator excludes COVID.</p> <p>Incident rate resulting in days away at Bruker in 2022: 0.86 Page 34</p>

Global Reporting Initiative (“GRI”) Index

GRI Disclosure	References and Comments
GRI 404: Training and Education (2016)	
404-2: Programs for upgrading employee skills and transition assistance programs	Page 38
GRI 405: Diversity and Equal Opportunity (2016)	
	<p>The indicator Demographic background diversity of BoD shows the self-disclosure of racial and ethnic diversity of representatives on the Board of Directors (BoD). In June 2023, the Board of directors at Bruker consisted of 80% members who identify as white, 10% as Asian, and 10% who did not disclose their ethnic background. Page 36</p>
	<p>The indicator gender diversity BoD shows the share of male and female representatives on the Board of Directors (BoD). In June 2023, the Board of directors at Bruker consisted of 70% men and 30% women. Page 36</p>
405-1: Diversity of governance bodies and employees	<p>The indicator Demographic background diversity of US workforce shows the self-disclosure of racial and ethnic diversity of Bruker’s workforce within the US. The following backgrounds were disclosed: 67% White; 15% Asian; 10% Hispanic or Latino; 4% Black or African American; 4% Other Page 36</p> <p>The indicator gender diversity (m/f) US workforce shows the share of male and female in Bruker’s workforce within the US. The workforce includes regular or part time employees (excluding temporary, contractors and interns). Bruker’s US workforce in 2022 consists of 1467 employees of which 1089 were male and 378 were female. Page 36</p>
GRI 413: Local Communities (2016)	
413-1: Operations with local community engagement, impact assessments, and development goals	Page 40

Sustainable Accounting Standards Board (“SASB”) Index

Accounting Metric	Code	Response
Energy management		
Total energy consumed, percentage grid electricity, percentage renewable energy	RT-EE-130a.1	In 2022, Bruker consumed a total of 268,683 GJ of energy. 64% of the total energy consumption was supplied from the power grid, 39% of energy was sourced from renewable energy sources. Page 27
Hazardous waste management		
Amount of hazardous waste generated, percentage recycled	RT-EE-150a.1	Bruker generated 317 t of hazardous waste in 2022. 16% of this hazardous waste was recycled. Page 28
Number and aggregate quantity of reportable spills, quantity recovered	RT-EE-150a.2	Bruker reported 0 spills. The aggregate quantity of 0 kg represents the total quantity of material released to the environment. The recovered quantity of 0 kg, represents the amount that was removed from the environment through cleanup actions. Page 28
Product safety		
Number of recalls issued, total units recalled	RT-EE-250a.1	The number of recalls issues at the Bruker organization was 2. The total units that were recalled were 43. Page 35
Total amount of monetary losses as a result of legal proceedings associated with product safety	RT-EE-250a.2	Bruker lost \$0 as a result of legal proceedings associated with product safety in 2022. Page 45
Product lifecycle management		
Percentage of products by revenue that contain ICE 62474 declarable substances	RT-EE-410a.1	Not applicable
Materials sourcing		
Description of the management of risks associated with the use of critical materials	RT-EE-440a.1	Page 44
Business Ethics		
Description of policies and practices for prevention of: Corruption and bribery and anti-competitive behavior	RT-EE-510a.1	Page 45
Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	RT-EE-510a.2	Bruker experienced a loss of \$0 as a consequence of litigation for bribery or corruption. Page 45
Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulation	RT-EE-510a.3	Bruker experienced a loss of \$0 as a consequence of litigation for anti-competitive behavior regulations. Page 45
Additional		
Number of employees	RT-EE-000.B	Number of employees within the Bruker organization: 8,525, Page 33

RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL MEASURES

(in millions, except per share data)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP operating income	\$ 131.0	\$ 125.4	\$ 432.7	\$ 413.3
<i>Non-GAAP adjustments:</i>				
Restructuring costs	0.4	3.0	4.8	8.2
Acquisition-related costs	4.3	3.0	19.7	6.9
Purchased intangible amortization	9.6	10.2	37.1	37.4
Other costs	3.6	2.2	11.3	4.4
<i>Total Non-GAAP adjustments:</i>	17.9	18.4	72.9	56.9
Non-GAAP operating income	\$ 148.9	\$ 143.8	\$ 505.6	\$ 470.2
<i>Non-GAAP operating margin</i>				
Non-GAAP operating margin	21.0%	21.0%	20.0%	19.4%
Non-GAAP interest & other expense, net	(10.0)	(5.9)	(20.4)	(19.7)
Non-GAAP profit before tax	138.9	137.9	485.2	450.5
Non-GAAP income tax provision	(28.6)	(47.4)	(134.4)	(126.1)
<i>Non-GAAP tax rate</i>				
Non-GAAP tax rate	20.6%	34.4%	27.7%	28.0%
Minority interest	(0.9)	(0.3)	(1.9)	(3.5)
Non-GAAP net income attributable to Bruker	109.4	90.2	348.9	320.9
Weighted average shares outstanding (diluted)	147.9	152.5	149.4	152.9
Non-GAAP earnings per share	\$ 0.74	\$ 0.59	\$ 2.34	\$ 2.10

Reconciliation of GAAP Gross Profit to Non-GAAP Gross Profit

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP gross profit	\$365.9	\$ 341.6	\$ 1,305.7	\$ 1,209.6
<i>Non-GAAP adjustments:</i>				
Restructuring costs	(0.2)	1.8	0.9	3.4
Acquisition-related costs	0.1	0.6	0.4	0.7
Purchased intangible amortization	4.8	5.2	18.3	20.2
Other costs	1.7	1.0	4.8	1.1
<i>Total Non-GAAP adjustments:</i>	6.4	8.6	24.4	25.4
Non-GAAP gross profit	\$ 372.3	\$ 350.2	\$ 1,330.1	\$ 1,235.0
<i>Non-GAAP gross margin</i>				
Non-GAAP gross margin	52.6%	51.2%	52.6%	51.1%

Reconciliation of GAAP Selling, General and Administrative (SG&A) Expenses to Non-GAAP SG&A Expenses

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP SG&A expenses	\$ 164.7	\$ 153.3	\$ 607.4	\$ 561.2
<i>Non-GAAP adjustments:</i>				
Purchased intangible amortization	(4.8)	(5.0)	(18.8)	(17.2)
Non-GAAP SG&A expenses	\$ 159.9	\$ 148.3	\$ 588.6	\$ 544.0

Reconciliation of GAAP Interest and Other Income (Expense), net to Non-GAAP Interest and Other Income (Expense), net

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP interest and other income (expense), net	\$ (10.0)	\$ (5.9)	\$ (18.8)	\$ (19.7)
<i>Non-GAAP adjustments:</i>				
Strategic investments related adjustments	—	—	(1.6)	—
Non-GAAP interest and other income (expense), net	\$ (10.0)	\$ (5.9)	\$ (20.4)	\$ (19.7)

Reconciliation of GAAP Tax Rate to Non-GAAP Tax Rate

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP tax rate	19.3%	36.4%	28.1%	28.7%
<i>Non-GAAP adjustments:</i>				
Tax impact of non-GAAP adjustments	1.7%	-1.6%	-1.8%	-0.8%
Stock Compensation	0.1%	0.1%	0.1%	0.4%
Other discrete items	-0.5%	-0.5%	1.3%	-0.3%
<i>Total non-GAAP adjustments:</i>	1.3%	-2.0%	-0.4%	-0.7%
Non-GAAP tax rate	20.6%	34.4%	27.7%	28.0%

Reconciliation of GAAP Earnings Per Share to Non-GAAP Earnings Per Share (Diluted)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
GAAP earnings per share (diluted)	\$ 0.66	\$ 0.50	\$ 1.99	\$ 1.81
<i>Non-GAAP adjustments:</i>				
Restructuring costs	—	0.02	0.03	0.05
Acquisition-related costs	0.03	0.02	0.13	0.05
Purchased intangible amortization	0.07	0.06	0.25	0.24
Other costs	0.01	0.02	0.06	0.04
Income tax rate differential	(0.03)	(0.03)	(0.12)	(0.09)
<i>Total non-GAAP adjustments:</i>	0.08	0.09	0.35	0.29
Non-GAAP earnings per share (diluted)	\$ 0.74	\$ 0.59	\$ 2.34	\$ 2.10

Reconciliation of Non-GAAP Return on Invested Capital (ROIC)

	FY 2022	FY 2021
Non-GAAP operating income	\$ 505.6	\$ 470.2
Less: non-GAAP income tax provision	(134.4)	(126.1)
Non-GAAP operating income after tax	\$ 371.2	\$ 344.1
Average total invested capital		
Average long-term debt	\$ 1,213.0	\$ 1,034.3
Average current portion of long-term debt	65.6	57.3
Average total shareholders' equity	1,108.3	1,029.6
Less: average cash and cash equivalents	(856.9)	(875.0)
Average total invested capital	\$ 1,530.0	\$ 1,246.2

Return on invested capital (ROIC) **24.3%** **27.6%**

Reconciliation of GAAP Reported Revenue Growth to Organic Revenue Growth

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
	Total Bruker		Total Bruker	
GAAP revenue as of prior comparable period	\$ 683.5	\$ 627.5	\$ 2,417.9	\$ 1,987.5
<i>Non-GAAP adjustments:</i>				
Acquisitions and divestitures	11.6	1.8	34.3	8.1
Organic	60.8	71.6	246.5	379.0
Currency	(47.5)	(17.4)	(168.0)	43.3
<i>Total non-GAAP adjustments:</i>	24.9	56.0	112.8	430.4
GAAP revenue	\$708.4	\$683.5	\$2,530.7	\$2,417.9
<i>Revenue growth</i>	3.6%	8.9%	4.7%	21.7%
<i>Organic revenue growth</i>	8.9%	11.4%	10.2%	19.1%

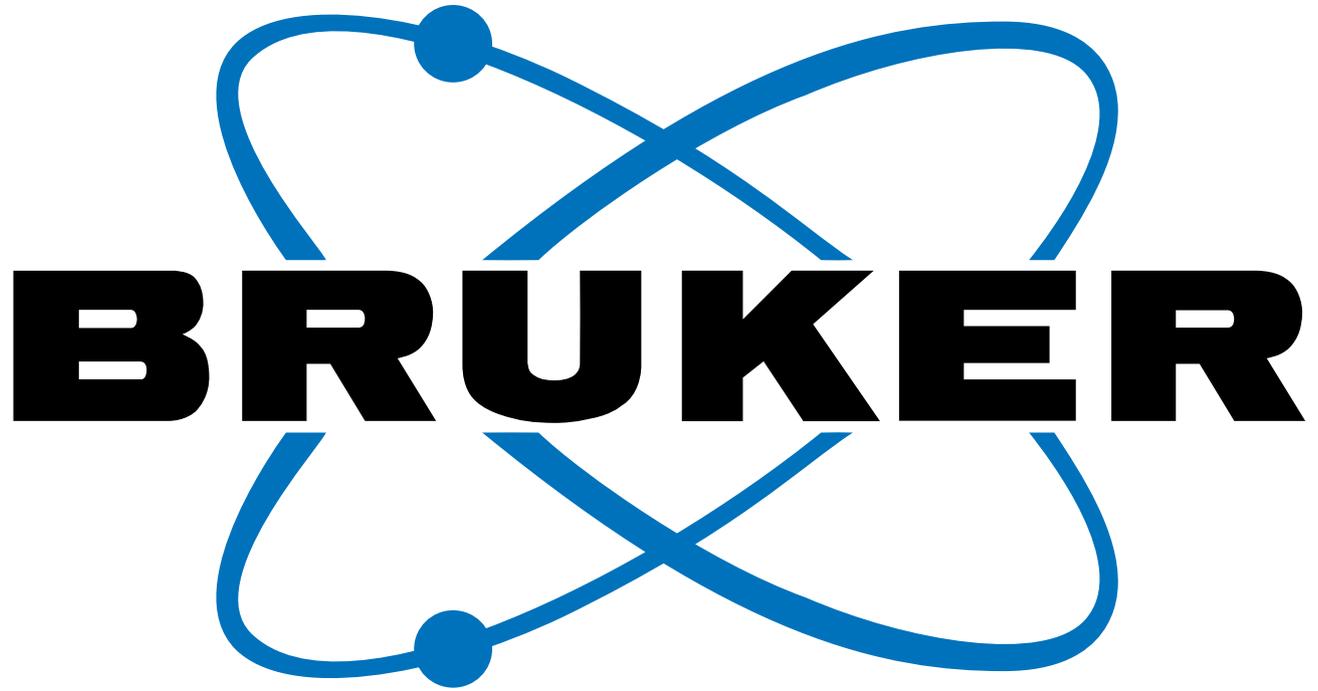
Reconciliation of GAAP Reported Revenue Growth to Organic Revenue Growth - Continued

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
	Bruker Scientific Instruments⁽¹⁾		Bruker Scientific Instruments⁽¹⁾	
GAAP revenue as of prior comparable period	\$ 629.2	\$ 574.7	\$ 2,208.1	\$ 1,810.0
<i>Non-GAAP adjustments:</i>				
Acquisitions and divestitures	11.6	1.8	34.3	8.1
Organic	53.4	68.0	210.0	351.4
Currency	(42.4)	(15.3)	(146.5)	38.6
<i>Total non-GAAP adjustments:</i>	22.6	54.5	97.8	398.1
GAAP revenue	\$ 651.8	\$ 629.2	\$ 2,305.9	\$ 2,208.1
<i>Revenue growth</i>	3.6%	9.5%	4.4%	22.0%
<i>Organic revenue growth</i>	8.5%	11.8%	9.5%	19.4%

⁽¹⁾ Bruker Scientific Instruments (BSI) revenue reflects the sum of the BSI Life Science and the BSI Nano Segments as presented in our 2021 10K.

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2022	2021	2022	2021
	BEST, net of Intercompany Eliminations		BEST, net of Intercompany Eliminations	
GAAP revenue as of prior comparable period	\$ 54.3	\$ 52.8	\$ 209.8	\$ 177.5
<i>Non-GAAP adjustments:</i>				
Organic	7.4	3.6	36.5	27.6
Currency	(5.1)	(2.1)	(21.5)	4.7
<i>Total non-GAAP adjustments:</i>	2.3	1.5	15.0	32.3
GAAP revenue	\$ 56.6	\$ 54.3	\$ 224.8	\$ 209.8
<i>Revenue growth</i>	4.2%	2.8%	7.1%	18.2%
<i>Organic revenue growth</i>	13.6%	6.8%	17.4%	15.5%

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