



HEIDENHAIN

Dependable
Future

Continuous
Progress

Sustainable
Practices

Environmental Declaration
2024

FOREWORD



Dear Readers,

Laying the foundation for success in challenging times sums up the business activities of HEIDENHAIN in 2023.

We are committed to Traunreut, Germany, as a business location. This includes our promise to keep and create long-term employment in the region. Without transitioning to renewable energy, however, this commitment would not be sustainable. We already purchase 100% of our electricity from verifiable renewable energy sources. But we also plan to build two wind turbines near our main site that will generate and directly supply our site with enough power to cover around one-third of our electricity needs.

Manufacturing our products requires various materials, especially metals and glass. To make sure these materials remain available in the quality we need, we are already optimizing their usage and engaging in high-grade recycling. With projects to conserve one of our most valuable resources, water, and to recycle tin, gold and silver from our PCB production, we are headed for new horizons in sustainability.

The future success of our products will increasingly depend on factors such as their carbon footprint and total cost of ownership. Our LC and RCN encoders for machine tools already provide a 99% smaller carbon footprint. In the near future, we will be determining the cradle-to-gate carbon footprint of select products in accordance with ISO 14067.

Our employees and suppliers play a key role in achieving sustainability. To account for this fact, this year's Environmental Declaration will, for the first time, include relevant data about employees, work safety, work environment and the supply chain.

Our environmental objectives, along with planned or already implemented environmental and human-resource measures, have set us on a firm course to continued corporate success. At HEIDENHAIN, ecological, social and economic sustainability are inseparable priorities.

March 27, 2024, Traunreut, Germany

Lutz Rissing
Executive Officer
Development and Production

Anna Enzinger
Executive Officer
Finance and Internal Services

Hubert Ermer
Executive Officer
Products and Markets

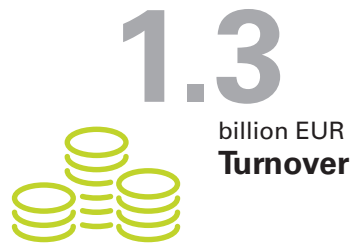
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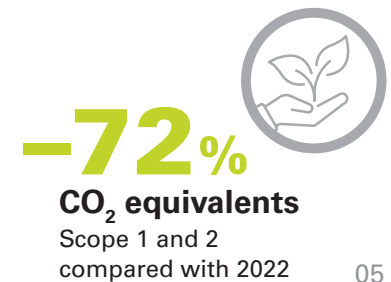
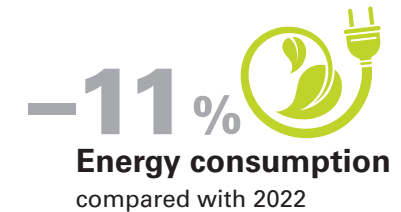
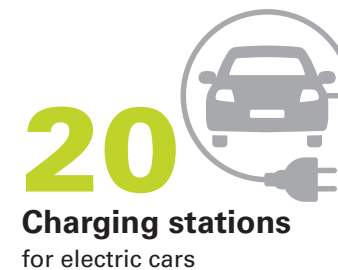
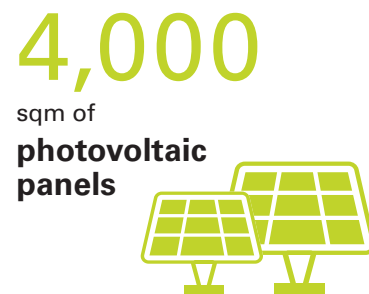
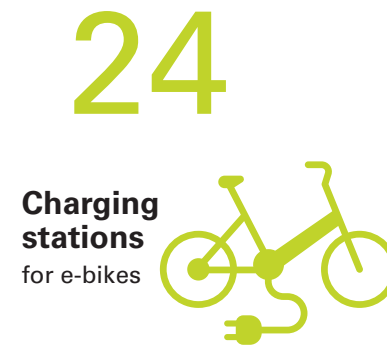
OUR COMPANY
Innovation made in
Bavaria and Germany

HEIDENHAIN IN NUMBERS

HEIDENHAIN CORPORATE GROUP



DR. JOHANNES HEIDENHAIN GmbH





ABOUT HEIDENHAIN

Exceptional accuracy and
continuous progress

Driving technologies

“High-tech made in Germany” is what HEIDENHAIN stands for around the world. For more than 135 years, we have been a pioneering and benchmark-setting force in the fields of advanced control, measurement and drive-system technology. Our products often create the conditions for technological progress in the world’s most innovative industries, including chip production, electronics manufacturing, machine tools and industrial automation.

Active around the world, anchored in Traunreut

We serve our global customers through regional sales and service subsidiaries, along with a network of local distributors. But the heart of HEIDENHAIN lies in the Upper Bavarian town of Traunreut, Germany, the home of our headquarters. Our solid commitment to this location gives our employees a high level of stability. It also gives our company and region the stability they need to make long-range plans, including extensive investments in the sustainable expansion of climate-neutral energy sources, new energy-efficient buildings and building renovation projects.

WHERE WE ARE

Operational proximity for optimal results

Our Traunreut site in the Chiemgau region of Bavaria includes six production departments, a training center for customers, an apprenticeship center for training our young talent, our administrative headquarters and our R&D operations, covering two nearby sites with 63,000 sqm of production space.

Manufacturing processes

- Metal and glass machining
- Production of precision optical graduations
- PCB assembly
- Final assembly

ENVIRONMENTALLY RELEVANT PROCESSES

Production in installations as defined by the German Immission Control Act and the German Water Management Act:

- Generation of electricity and heat in a gas-fired combined heat and power plant for peak-load demand and emergency backup
- Reintroduction of wastewater from glass processing

Installations for handling water pollutants and emissions containing volatile solvents:

- Handling, storage and transport of hazardous waste and materials
- Galvanic and chemical surface alteration of optical glass and steel carriers, with pH neutralization of the rinse water
- Manual and automated surface cleaning of semi-finished and finished graduation products using volatile solvents
- Operation of recooling plants as part of building ventilation systems

FACTS

HEIDENHAIN sites in Traunreut and Hochreit

Area:
305,000 sqm total area
141,000 sqm in Traunreut
164,000 sqm in Hochreit

72 % sealed area
23 % near-natural area
5 % other green area

4,200 employees

EUR 535 million
 Gross value added in 2023

3,851 t
 Total output in 2023
 (total mass of all products sold, incl. packaging)





Hochreit
site



Traunreut
site

Our logistics center and metal and glass machining lines are in Hochreit, located just one kilometer from our main site in Traunreut.

The environmental impacts described on the following pages refer to both sites, with 80% arising from our main headquarters in Traunreut.

FACTS

Over **28.5 million** rotary and angle encoders

Over **8.6 million** linear encoders

Over **518,000** digital readouts

Over **326,000** CNC controls

And much more:

- Software solutions
- Touch probes and vision systems
- Length gauges
- Signal converters
- Inspection and testing devices

Number of products sold up to the end of 2023

WHAT WE DO

Measurement and control technology for rigorous positioning tasks

Creating long-term value

Our products have always been designed to increase the efficiency and performance of our customers' machines and processes on the one hand and to promote sustainability and eco-friendly operation on the other. That's why HEIDENHAIN products are not wear parts. They are designed for the entire life cycle of a machine. It's why we prioritize resource-saving repairs and long servicing periods in our product servicing strategy. And it's why we use a high proportion of reusable materials to ensure high recycling rates when our products reach the end of their service lives.

HEIDENHAIN controls

HEIDENHAIN controls have a 35-year proven track record of day-to-day use on milling machines, lathes, drilling machines and machining centers. Besides optimizing the motion control of machine axes, their high-performance functions ensure higher accuracy, faster removal rates and greater process reliability. By reducing non-productive time and making productive time more efficient, they enable higher throughput and a sustainably smaller carbon footprint per finished part.

HEIDENHAIN encoders

Our cutting-edge encoder technology has a direct impact on sustainability: The latest generation of our LC, LB and RCN encoders for machine tools are a case in point. Their improved sensor optics eliminate the need for purge air, thereby reducing their operational carbon footprint by up to 99%.



99% smaller carbon footprint: sealed encoders for machine tools



More productive time: the new TNC7 control generation

SUSTAINABLE
STEWARDSHIP
Less consumption and
more biodiversity

820 MWh of green electricity per year: photovoltaic panels on production buildings in Hochreit



ENERGY EFFICIENCY PROJECTS

Adjust, conserve and sustain

One-third of our electricity comes from the hydroelectric plant in Melk, Austria (Photo: ©Verbund)

FACTS

100%
Green electricity

10%
Less electricity used

15%
Less heat energy used

Compared with 2022

Leaving fossil fuels behind

In 2023, we took another important step toward becoming less reliant on fossil fuels for our power and heating needs at our Traunreut site. Our gas-fired combined heat and power plant, along with other heating equipment, is now only a fallback for emergencies and peak demand during the winter.

Hydroelectric, solar and wind power

Our Traunreut site and all our affiliated companies in Germany receive 100% of their electricity from verifiable renewable energy sources. This green electricity is purchased from a variety of suppliers. About 60% of it comes from power purchase agreements that contractually specify the type of power plant.

Hydroelectric power, for example, meets one-third of our total electricity needs.

Some of our power is generated in-house through photovoltaic panels on the roofs of production buildings. Our solar power capacity is continually growing. In 2023, we installed enough photovoltaic panels on production buildings to provide around 820 MWh in annual capacity. These panels became operational in January 2024. Our current plans call for photovoltaic panels on a new building and on the roofs of our parking garages.

Right now, we are also planning and seeking approval to build our own wind turbines in close proximity to the Traunreut site. Estimated to meet nearly one-third of our annual power needs, their output will feed directly into our corporate power grid.



Dr. Günther Obermeier
Head of Facility Engineering

Close cooperation with the city of Traunreut and its municipal utilities played a key role in our transition from fossil fuels to renewable energy.

District heating

Under normal conditions, district heating from Traunreut's municipal utilities covers our heating needs. This heat comes primarily from renewable biomass and geothermal sources.

Reducing energy consumption

Just as important as switching to renewable sources is saving energy in the first place, not least due to the economic benefits. It's why we continuously pursue energy efficiency projects in our production departments. Our reduction in energy consumption in 2023 compared with 2022 is proof of how effective these measures were. We reduced our heating consumption by 15% and our electricity consumption by 10%.

Our holistic approach to energy conservation covers:

- New buildings and renovations
- Replacement and modernization of equipment

Our new R&D center, for example, is being built in accordance with the German EG 40 standard. This project is also tied to renovation projects for older buildings and their services.

Energy monitoring

Our extensive energy monitoring activities, which we are continuously expanding, track the effects of our measures. Monitoring the energy consumed by each building over time reveals negative trends and any weaknesses. Energy monitoring thus plays a vital role in optimizing our energy consumption.

PROJECTS FOR MORE BIODIVERSITY

Creating habitats and increasing botanic diversity

FACTS

69,000 sqm

Near-natural area

Approx. 30

Birdhouses and birdbaths

We know that built-up land is the hallmark of a manufacturing site, with production and administrative buildings interlinked by roads and truck courts. Nevertheless, all of us at HEIDENHAIN value the beauty of nature. One of our concerns has been to increase botanic diversity on our grounds, thereby providing a habitat that not only protects but also attracts birds, insects and other wildlife. For many years, we have made a point of creating green spaces that are as wildlife-friendly as possible. This includes:

- Fallow land
- Wildflower lawns
- Orchard meadows
- Protective hedges

Birdhouses and birdbaths are installed at both sites. We are pleased to report that all birdhouses have been occupied in recent years. And insect hotels, especially at our built-up headquarters, provide a habitat for insects right in the center of town. As part of our contribution toward protecting wild bees and overall biodiversity in Bavaria, we aim to expand these measures in 2024. This year, we are applying for the official “Flowering Company” designation from a state program that promotes insect-friendly wildflower areas across Bavaria.

„ We’ve enjoyed the challenge of creating wildlife-friendly spaces that are both visually appealing and easy to tend on a built-up industrial site.

“

Ludwig Haslberger
Landscape Gardener



PROMOTING
SUSTAINABILITY
THROUGH PRODUCTS

Our green path to
manufacturing



Thilo Schlicksbier
Product Manager



Optimized optics, a HEIDENHAIN-developed scanning ASIC and our precision components work together to ensure high scanning accuracy. Customers receive HEIDENHAIN reliability but without the need for purge air.

ENCODERS FOR MACHINE TOOLS

Smaller carbon footprint, lower system costs and greater process reliability

Optimized sensor optics reduce CO₂ and cost

Making high-accuracy products on machine tools requires precise motion and position control of the machine table that moves the workpiece and of the spindle that holds the tool. HEIDENHAIN makes this possible through the position feedback of its angle and linear encoders. Due to cooling lubricant in the machine envelope, these feedback devices need to operate reliably in the face of significant liquid contamination. Thanks to improved optics that reduce diffraction and diffusion, next-generation HEIDENHAIN linear and angle encoders ensure accurate scale readings despite condensation and droplet contamination. As a result, they don't need purge air to reliably provide high-accuracy position feedback.

This benefits machine manufacturers, who can dramatically simplify their compressed air systems and forgo extra air filters. In many cases, the encoders require no compressed air at all, thus reducing their carbon footprint by up to 99% during operation while also lowering system costs.

Machine-tool users also benefit from these next-generation encoders in several ways:

- Less energy consumption due to less compressed air
- Lower operating costs due to less maintenance of the compressed air system
- Improved process reliability due to higher operational availability of the encoders, even without compressed air



Clear vision: our next-generation encoders can still read the graduation despite droplet contamination (on the left). Conventional optics struggle with distortions (on the right).

CONTROLS FOR MACHINE TOOLS

Saving energy through less non-productive time and greater scrap-free productivity



FACTS

5 x

Faster workpiece setup

3 x

Faster workpiece milling

1 second

Faster workpiece probing

6 seconds

Faster tool-breakage inspection

Making the most out of productive time

The technologies we develop for our controls reduce machining time and allow more parts to be machined faster with process reliability. HEIDENHAIN controls enable single-setup milling, turning and grinding on the same machine. This complete machining capability ensures a consistent manufacturing process. We also provide functions for automated processes that make it possible to plan jobs for unattended shifts and to orchestrate seamless job sequences ahead of time, all on the control. It therefore becomes possible to machine parts with a lot size of 1 in perfect quality, resulting in less scrap and rework. The saved time, energy and resources add up to highly effective environmental stewardship.

Component monitoring for the TNC control improves machine availability and prevents unplanned downtime.



Although responsible for only about 20% of a machine tool's total energy consumption, the components of HEIDENHAIN control systems can significantly contribute to energy efficiency by greatly reducing the energy required per part.



Michael Weber
Product Manager

More productive time

Significant energy-saving potential can be realized by shortening a machine tool's non-productive time. During non-productive time, machine tools still consume more than 50% of the electricity needed during machining. One source of non-productive time is the machine setup process. HEIDENHAIN controls provide smart functions to accelerate this work step. Specifically, 6D setup options for the new TNC7 control help users probe workpieces and workholding up to five times faster. This saves significant amounts of time and energy, especially on complex parts requiring numerous probing routines. During automatic machine setup and in-process inspection for large-batch production processes, our touch probes deliver speed gains of up to one second per probing cycle.

Another source of non-productive time is unplanned downtime. Various factors may cause interruptions in the production process, including:

- Errors in machine-tool programs
- Collisions between machine parts
- Tool wear and breakage
- Tools missing for machining processes

The ability to detect and prevent such interruptions ahead of time is therefore a key factor in improving the energy efficiency of a machine tool. Our controls significantly increase the process reliability of machine tools through Digital Twin technology, extensive simulation capability, continuous component monitoring and non-stop process and collision monitoring. We also provide sensors and vision systems that perform in-process tool inspection for wear and breakage, inspecting each tool up to six times faster than conventional laser systems.

ENVIRONMENTAL MANAGEMENT

Fostering sustainability in
our business practices

HEIDENHAIN takes a holistic approach to environmental management. Protecting natural resources has always been an important concern at our company. My mission as the environmental officer is to create the conditions for orderly and feasible environmental management, thereby enabling compliance with legal requirements and internal policies. Every employee plays a role in saving energy, preventing waste and conserving resources. By pulling together, we can achieve our common goals.

A circular portrait of Karl Landinger, the Environmental Officer. He is a middle-aged man with short, light brown hair, smiling warmly at the camera. He is wearing a dark blue suit jacket over a light blue button-down shirt. The background is a blurred outdoor setting with a building facade.

Karl Landinger
Environmental Officer

ENVIRONMENTAL POLICY

Setting objectives, aligning resources and taking action

The company's context

HEIDENHAIN uses an environmental management system to implement its core environmental protection and occupational health and safety policies in the form of practical step-by-step procedures. Key environmental factors form the basis of our environmental objectives and our continuous improvement measures. In the process, full compliance with all legal requirements is essential.

Organizational structure and process landscape

An environmental protection officer appointed by the Management Board monitors the company's compliance with its environmental and occupational health and safety policies.

The environmental protection officer is supported by officers for:

- Emissions control
- Water pollution control
- Waste management
- Hazardous materials

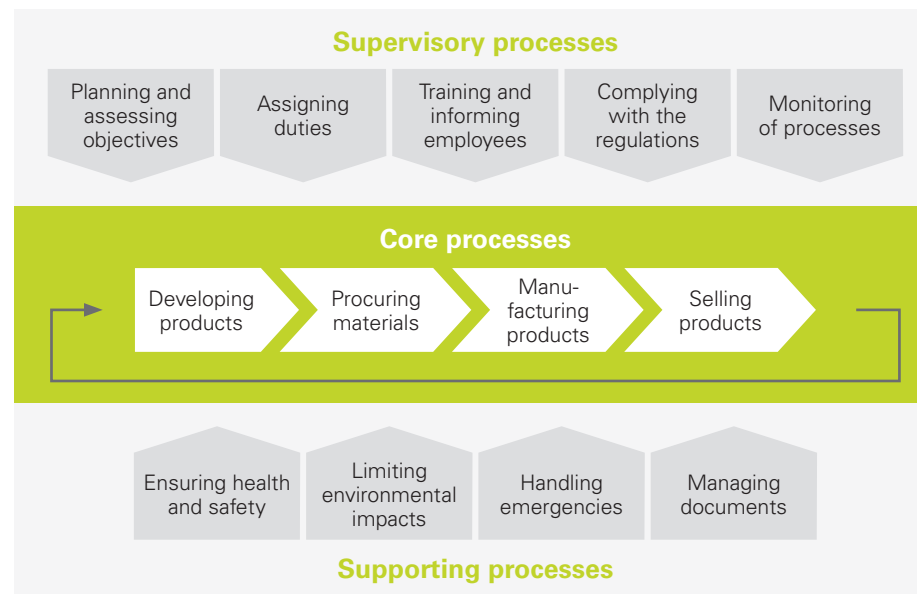
These officers track and evaluate all relevant legal changes, informing any affected corporate departments. They thereby ensure that legal requirements are met while identifying possible options for improvement. Documents for the environmental management system are managed on a digital knowledge platform. These documents include:

- High-level process descriptions
- Work and operating instructions for specific business units



FACTS

No violations of environmental regulations were found to have occurred at our site during the 2023 reporting period.



ENVIRONMENTAL POLICY

Analyzing processes, tracking trends and making improvements

Assessing environmental impacts

Our business activities have a variety of effects on the environment. To identify these effects, we analyze our environmentally relevant processes under normal operation and potential operational breakdowns, taking the following factors into account:

- Operational consumables
- Waste
- Energy
- Emissions
- Water and soil

For each factor, we determine the resource and energy consumption, examine the use of any environmentally relevant equipment and record the results as core indicators. These indicators are then regularly reviewed so as to determine whether and to what extent we were able to meet our environmental objectives. We also examine how these numbers have changed in recent years, thereby identifying trends and ensuring a continuous improvement process.

Internal environmental audits

Internal environmental audits help ensure:

- The systematic and periodic evaluation of our environmental performance
- Compliance with the relevant environmental regulations

All activities of the company therefore undergo a full audit at a defined interval of at most three years. We also summarize the results of the environmental audit program in a document that helps the Management Board evaluate the suitability, reasonableness and effectiveness of the environmental management system.

These audits are supplemented by periodic, department-specific internal environmental and occupational health and safety audits. The audit participants include trained auditors, the relevant managerial employees, the company physician and the Works Council. We then document, follow-up on and resolve any identified deviations in a timely manner, thereby ensuring that the current environmental management system aligns with our corporate environmental and occupational health and safety policy.



PROTECT NATURE
PRESERVE HEALTH
CREATE AWARENESS

Guidelines for Occupational Health and Safety and Environmental Protection

- 1** HEIDENHAIN shall protect and preserve the environment as essential for the existence of current and future generations.
- 2** HEIDENHAIN shall comply with all applicable labor and environmental law.
- 3** HEIDENHAIN shall comply with the environmental provisions and standards that affect its operations, act in an environmentally conscious manner at all its sites and handle natural resources responsibly.
- 4** HEIDENHAIN shall, in the spirit of continuous improvement, strive to develop and use new products and production technologies to optimize the consumption of raw materials, to mitigate negative environmental impacts and to reduce employee exposure to hazards and physical stressors.
- 5** HEIDENHAIN shall ensure that its safety systems and organizational measures are always in the current state of the art.
- 6** HEIDENHAIN shall inspect, monitor and evaluate the effects of its corporate activities on the safety and health of its employees and on the environment so as to eliminate hazards and limit risk.
- 7** HEIDENHAIN shall expect its managerial and non-managerial employees to actively contribute to environmental protection and occupational health and safety.
- 8** HEIDENHAIN shall train and inform its employees in order to promote safety and sensitivity to environmental matters both inside and outside the company.
- 9** HEIDENHAIN shall endeavor to ensure the seamless flow of information to public authorities through a cooperative relationship.
- 10** HEIDENHAIN shall inform its business partners and the public regarding the safety and environmental impact of the company and its products.

Occupational health and safety and environmental protection are a core part of our corporate policy

The company's occupational health and safety and environmental protection guidelines are the basis for ensuring employee health and safety and for protecting the environment. The environmental officer, who is appointed by the Management Board, is responsible for initiating, implementing and continuing to develop our environmental and occupational health and safety policies. He is also responsible for ensuring that they are complied with throughout the company.

Environmental protection and occupational health and safety are equivalent in importance to other corporate objectives. We provide the resources needed to ensure safe and healthy work conditions and to minimize negative environmental effects. All our employees are covered by this management system for occupational health and safety.

Evaluating working conditions

We systematically evaluate the working conditions of all employees on a regular basis in accordance with the German Occupational Health and Safety Act and with regard to hazards and physical stressors. Through internal audits, we also periodically review our compliance with all occupational health and safety requirements, such as our operational and equipment safety, and initiate measures for improvement.

Employee training and professional development

We train our employees with the aim of preventing work accidents caused by human error. Employees receive periodic instruction from their supervisors about hazards as they arise and about how to avert them. In-house training courses on occupational health and safety are also offered to employees based on their particular occupational hazards. Our low occupational accident rate compared with that of the overall industry attests to the effectiveness of these measures.

Internal communication

The safety and environmental committee convenes periodically to promote internal communication between safety specialists, the company physician, the Works Council and representatives of the various technical divisions. This committee discusses topics regarding environmental protection and occupational health and safety and jointly defines necessary measures.





ENVIRONMENTAL IMPACTS

Continuously reducing
our effects on the
environment

ENVIRONMENTAL IMPACTS AND MEASURES: WASTE

Although waste is unavoidable, we aim to minimize its production and maximize its recovery

Waste recovery through high-value recycling

HEIDENHAIN produces the main following types of waste:

- Metal from metalworking
- Glass from graduation production
- Wastepaper from offices
- Cardboard from packaging
- Electronics waste, especially from electronics manufacturing
- Household-like commercial waste
- Hazardous waste, especially solvent-water mixtures and cooling lubricants

Through regional waste disposal firms and a hazardous-waste disposal company, GSB Sonderabfall-Entsorgung Bayern GmbH, we collect, separate, recycle and remove waste in accordance with the requirements of the German Waste Management and Product Recycling Act, the German Commercial Waste Ordinance and applicable hazardous materials regulations. We also aim for superior recycling quality, as in the case of tin from our PCB manufacturing waste. Since 2023, our tin electronics waste has been sent to a special recycling company that recovers pure tin. Due to the success of this

project, we will be expanding it to include gold and silver PCB manufacturing waste that would otherwise go to general e-waste recycling.

Waste disposal

Through rigorous waste separation, we were able to recycle 2,655 t of waste, or 95% of our total waste, in 2023. Two processing plants in our manufacturing departments separate metal chips from the emulsions they are trapped in. Reducing the moisture content of the chips to less than 1% enables effective and cost-efficient recycling.

On enclosed machine tools, we increasingly use centrifugal extraction units, where we separate the picked-up cooling lubricant from the oil and emulsion mist for reuse within the system. Non-reusable cooling lubricant is stored as waste in centralized tanks near the cooling-lubricant treatment equipment. This prevents the unnecessary movement of hazardous substances within the company.

In addition, we use polymer nets instead of trash bags in all business units with suitable waste. This policy saves around 120,000 trash bags annually.

FACTS

15%

Less waste

95%

Recycling rate

120,000

Fewer trash bags used

Compared with 2022

Hazardous materials

The following hazardous materials arise from the company’s manufacturing processes:

- A solvent-water mixture for the surface cleaning of semi-finished and finished products
- Waste from coating processes, adhesive residue from assembly processes and soiled cellulose cloths from cleaning activities
- Various waste products containing acids and bases from graduation production

The hazardous materials are filled or packed into approved transport containers and then declared and loaded in compliance with applicable regulations. The employees involved in the transport process monitor the packing and loading process based on a checklist.

All employees involved in the transport of hazardous materials are trained and regularly instructed based on their specific role. An external hazardous materials officer monitors compliance with the hazardous materials regulations.



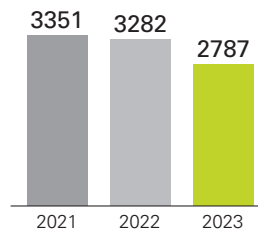
Waste statistics

Waste and recyclables

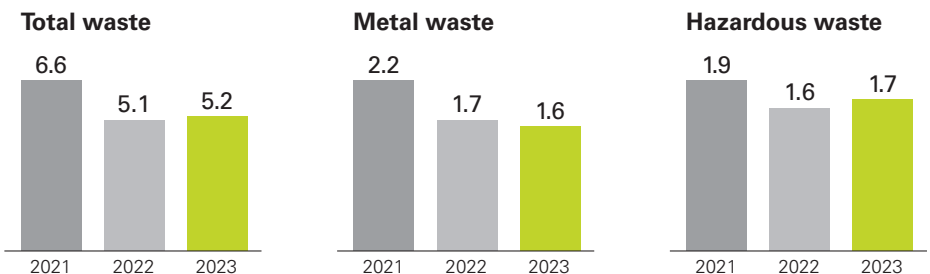
in t

	2021	2022	2023
Electronics	97	100	107
Glass	63	52	44
Industrial waste	284	243	243
Wood	148	154	139
Metal	1142	1075	868
Paper	246	255	232
Hazardous waste	985	1016	915
Other waste	386	387	239

Total
in t



Per TEUR of gross value added
in kg





Stephanie Gründl
Housekeeping Manager

Through rapid transformation by our housekeeping team, we achieved clear wins for the environment, such as transitioning to probiotic detergents and cleaning agents, and switching from trash bags to washable nets. Wherever trash bags are unavoidable, we use only bags made from recycled materials.

ENVIRONMENTAL IMPACTS AND MEASURES: WATER AND SOIL

Reducing consumption as much as possible and eliminating waste

FACTS

120 m³
Water saved during industrial filter disinfection

5,500 m³
Water savings soon to be realized

Compared with 2022

Projects to save water

As the basis of life, water is a valuable resource that must be protected. We use water in our manufacturing processes but aim to significantly reduce our consumption. In 2023, we implemented a small project that saves 120 m³ of water per year during the disinfection of equipment filters. We have also installed the necessary equipment to recover water and energy while rinsing filters for the ultra-filtration equipment. This equipment will become operational in 2024. Because rinsing is performed around the clock, this new technology will save 80,000 kWh of energy per year. Up to 75% of the hot rinse water (at approx. 50° to 60° Celsius) will be recirculated, thereby saving up to 5,500 m³ of water per year.

Water and wastewater

In 2023, we consumed around 143,000 m³ of freshwater, mainly through rinsing processes during graduation production and through air conditioning systems in our production and assembly

departments. All our fresh water is sourced from the public mains of the Traunreut waterworks. In 2023, we generated around 98,000 m³ of production and sanitary wastewater. The discrepancy between fresh water and wastewater is due to evaporation in cooling systems and humidifiers. Before being discharged into the public sewage system, a portion of our wastewater is pretreated with the following equipment:

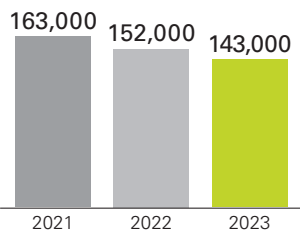
- Grease interceptors separate oil and grease from the wastewater and rinse water produced by our in-house cafeteria
- Light liquid separators treat wastewater containing petroleum-based oils from the company's in-house car wash stations
- Neutralization systems for wastewater from graduation production, which treat and monitor the pH of mildly contaminated rinse water

Our separator systems are operated in accordance with applicable legal requirements.

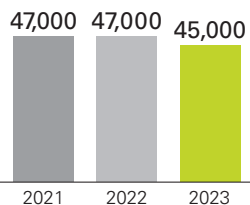
Water consumption and wastewater

in m³

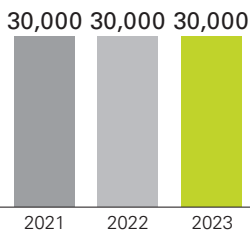
Total



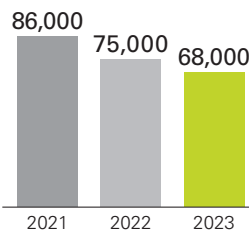
Evaporation from cooling towers and air humidifiers



Sanitary wastewater



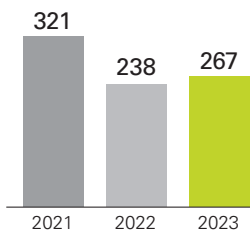
Production wastewater



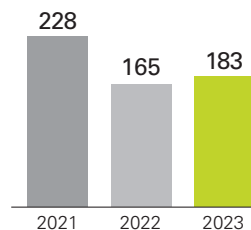
Per TEUR of gross value added

in dm³

Water consumption



Total wastewater





Wastewater contaminant levels

An accredited measuring body annually inspects our wastewater from graduation production. The contaminant levels are considerably lower than the government-required wastewater limits, indicating good biological characteristics:

- The organic, nitrogen and phosphorous contaminant levels are significantly lower than those found in household raw effluent.
- Other water contaminants such as heavy metals were identified in very small amounts.

The machining of glass and glass-ceramics produces wastewater. Releasing this wastewater into the public sewage system requires approval in accordance with the German Water Resources Act. The minimum requirements for releasing this wastewater are based on Appendix 41 of the German Wastewater Ordinance and are defined in our approval notice.

Within the scope of our in-house monitoring in accordance with the German Water Resources Act, we also perform periodic inspections of our corporate sewage system and resolve any deficiencies.

Runoff water

For many years, all our new buildings have been designed to divert runoff back into the natural water cycle through soakaway pits.

Soil protection

In the interest of protecting soil and water from hazardous pollution, areas once suspected of contamination were examined in the past for hazardous substances in accordance with the requirements of the German Soil Protection Act. As a result, the company grounds are currently free of suspected contamination areas from the past.

Legal and government agency wastewater limits and measurement results

	Unit	Limit value	Measurement results
Graduation production			
Hydrocarbons	mg/l	20	< 6
Zinc	mg/l	5	< 0.05
Chromium	mg/l	1	< 0.01
Nickel	mg/l	1	< 0.01
AOX	mg/l	1	< 0.1
Glass machining			
Copper	mg/l	0.3	< 0.15
Lead	mg/l	0.3	< 0.015
Arsenic	mg/l	0.3	< 0.15*
Wastewater quantity	m³/d	80 / 99	< 1 / < 90

These measurements come from the reports of an accredited measuring body. For our two glass-machining collection sites, the stated value is the maximum measured value.

* Through our self-monitoring process, faulty samples caused the appearance of non-representative values for arsenic in 2023. These values are not included in the table, because there was no further threshold exceedance after correction of the error.



Cleaning and rinsing processes are essential for ensuring the quality of our graduations during production. We are proud to have found a solution that saves both the resource water itself and energy when preparing the required ultrapure water, without compromising on quality.

Steffen Unger

Project and Planning Engineer at
the Graduation Production Lab



ENVIRONMENTAL IMPACTS AND MEASURES: ENERGY

We source electricity and heat primarily from renewable sources while continuously lowering our consumption

Renewable energy

Renewable sources make up 100% of our electrical power. For heating, we use district heating primarily from renewable sources. Our total energy consumption in 2023 was 62.2 GWh. Of this consumption, around 52.2 GWh were covered by renewable energy. The proportion of renewable energy was therefore approximately 84% across all sources used.

New buildings

When planning a new building, we make sure to implement:

- Energy-efficient operation
- External heat loss prevention

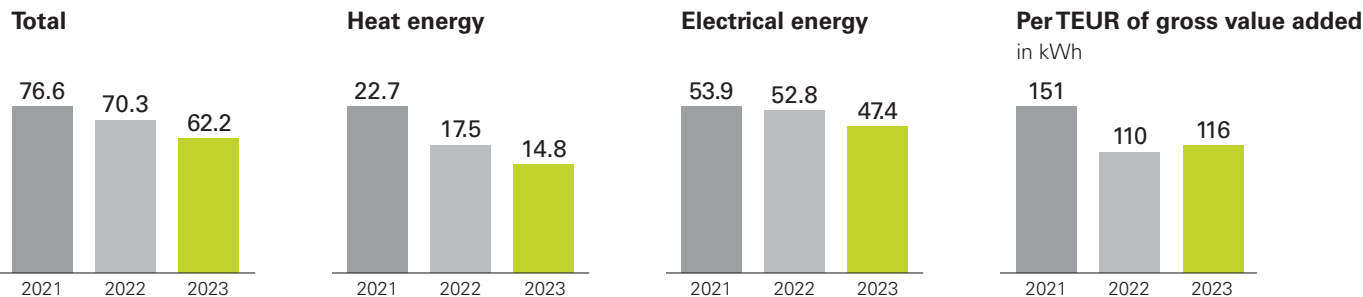
- Energy-efficient building services for heating, ventilation, cooling and lighting
 - State-of-the-art eco-friendly technologies, such as heat recovery technology in air systems
- We also ensure that all such measures meet the applicable legal energy-saving requirements for buildings.

Energy rehabilitation for existing buildings

We improve the energy efficiency of existing buildings by renovating them and their building services. The objective is to ensure the economical and, by extension, eco-friendly operation of existing buildings.

Energy consumption

in GWh



FACTS*

100%
Green electricity

Full transition
To district heating under normal conditions

10%
Less electricity consumed

15%
Less heat energy used

*For more details about our energy efficiency projects, see page 11.

Compared with 2022





Felix Welkhammer
Head of Construction Services

From photovoltaic panels to geothermal heat, sustainability was planned into our new R&D center literally from top to bottom.

ENVIRONMENTAL IMPACTS AND MEASURES: PRODUCTION MATERIALS

Through the careful use of materials and the monitoring of their flow, we are able to optimize the raw material requirements in our production departments

Our manufacturing operations exhibit unusually high vertical integration. The following processes are performed in-house:

- Metalworking
- Glass machining
- Graduation production
- Electronics manufacturing
- Final assembly

The main materials used in our production processes are as follows:

Steel and aluminum

- Linear encoder extrusions
- Flanges for angle and rotary encoders
- ▶ In 2023, we were able to reduce our year-on-year material procurement of aluminum by 36% to 1.6 kg per thousand EUR of gross value added. Our procurement of steel also fell by 27% to 0.8 kg per thousand EUR.

Flat glass

- Carrier for our precision graduations
- ▶ In 2023, our year-on-year procurement of flat glass remained at 0.5 kg per thousand EUR gross value added.

Solvents

- Cleaning the surfaces of finished and semi-finished goods

Cooling lubricant

- Machining of metallic materials
- Glass machining during graduation production

Acids and bases

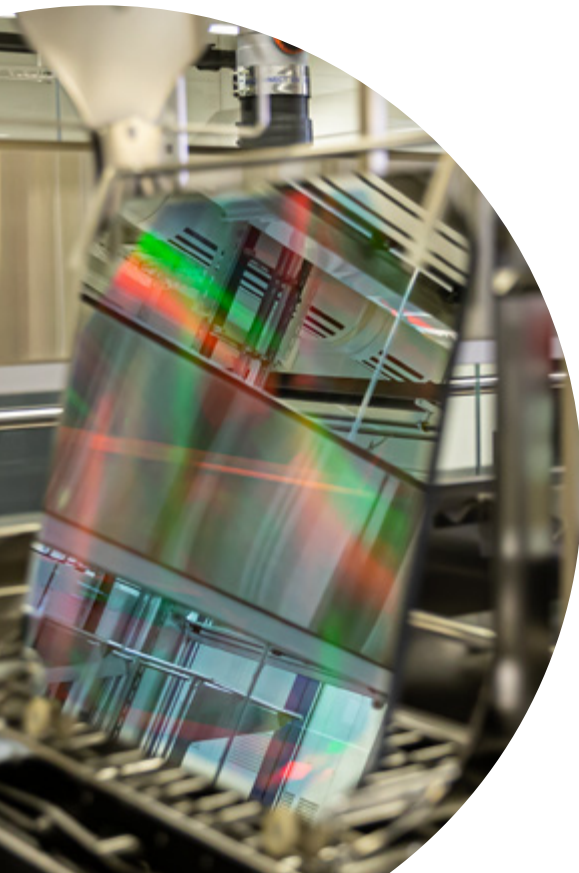
- Galvanic and chemical processes for treating the surfaces of encoder graduations
- ▶ These substances are handled predominantly in closed systems where the ambient air is monitored.

Chlorofluorocarbons

- Refrigerants in closed cooling cycles
- ▶ Tiny amounts of these substances escape via leakage during the operation of air conditioning systems, and this loss is replaced. We are striving to transition all our air-conditioning systems to eco-friendly refrigerants and to reduce refrigerant loss.

Cardboard and wood

- Recycling-friendly packaging materials
- ▶ To increase our share of recyclable packaging materials, our packaging design team is increasingly introducing molded packaging blocks made from molded pulp rather than plastic to create a sustainable packaging cycle.





Johannes Gallinger
Technical Procurement

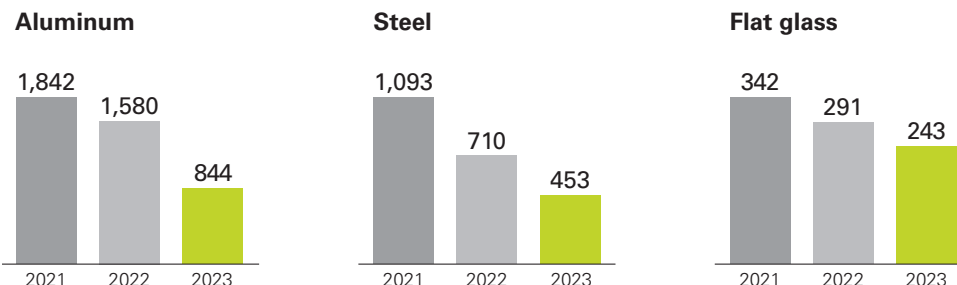
In 2021 and 2022, we significantly increased our inventory due to the supply-chain shortage. This situation improved in 2023, which is why our procurement and inventories dropped.

Material efficiency

For determining our material efficiency, we did not consider our material consumption but rather the procured amount of three materials that, in terms of mass, make up the bulk of our products: aluminum, steel and flat glass. Efficient materials usage during production significantly contributes to the conservation of natural resources and to the economic efficiency of production processes. We have recorded the main flow of raw materials and other production materials. This tracking allows us to identify reasonable savings potential.

Raw materials

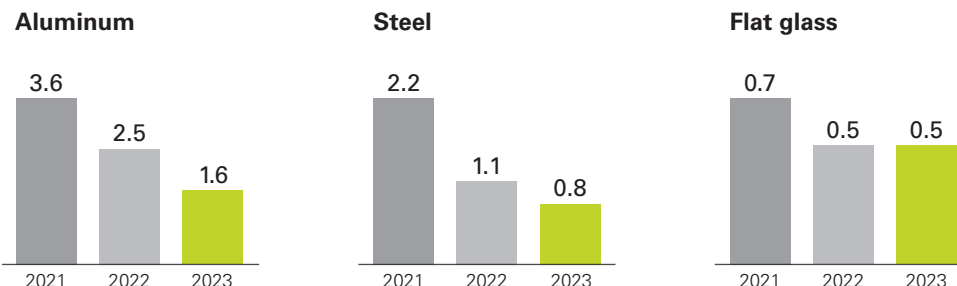
in t



Raw materials

Per TEUR of gross value added

in kg



ENVIRONMENTAL IMPACTS AND MEASURES: EMISSIONS

Reducing our emissions of greenhouse gas and volatile organic solvents is a continuous environmental objective

Greenhouse gas emissions

To reduce greenhouse gas emissions, we continue to carry out highly successful building and equipment optimizations. In 2023, we were thereby able to reduce our year-on-year CO₂-equivalent emissions by 72% to 800 t, down from 2,900 t in 2022. This comparison takes into account anthropogenic greenhouse gases from the following emissions sources:

Scope 1 = Direct emissions of climate-damaging gases by the company itself

Because our site's heating primarily comes from renewably sourced district heating, greenhouse gas emissions as defined by Scope 1 play only a marginal role. Our gas-fired combined heat and power plant, along with other heating equipment, is now only a fallback for emergencies and peak demand during the winter.

Scope 1 greenhouse gases are also emitted by in-house factory traffic. We are gradually transitioning our in-house vehicle fleet to electric vehicles. Five of our combustion-engine vehicles have already been replaced by electric vehicles.

Scope 2 = Indirect emissions of climate-damaging gases by energy suppliers

Regarding the greenhouse gas emissions for purchased energy, we have been climate-neutral since 2021 after transitioning to climate-friendly energy sources, namely green electricity and district heating.

Scope 3 = Upstream and downstream activities

We have begun recording Scope 3 greenhouse gas emissions. Based on this data, we are planning measures for improving our greenhouse gas emissions for this scope as well.

Surface cleaning with organic solvents

We have a long-term objective of reducing our volatile organic compounds (VOC) emissions. These emissions primarily arise from the surface cleaning of finished and semi-finished goods at various machines and workstations.

FACTS

72%

Less CO₂-equivalent emissions than in 2022

Climate-neutral

In Scope 2 since 2021

Along with water, various solvents are used as cleaning agents, especially alcohols and acetone. But we are striving to identify less environmentally harmful replacement substances. These efforts, however, must contend with the extremely high quality requirements for individual cleaning processes. We reduced our year-on-year VOC emissions by 17%, from 19 t to 15.8 t.

Other environmentally relevant emissions

Odor, dust and noise emissions arise only in low quantities.

Systems requiring approval

For the operation of the combined heat and power plant and our central heating system, we must comply with the requirements for the relevant approval notice and the 44th Ordinance of the German Federal Immission Control Act.

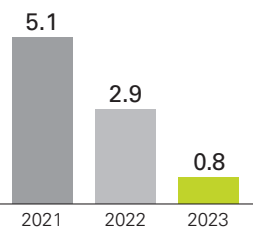
Most of our VOC emissions occur during graduation production, which is subject to the special requirements of the 31st Ordinance of the German Federal Immission Control Act. Both ordinances require the recurring measurement of emissions at different exhaust-air systems by an accredited measuring body. All results are below the legally required emissions limits.

Evaporation cooling systems are required especially for air conditioning systems in buildings. Their operation requires compliance with the 42nd Ordinance of the German Federal Immission Control Act. The required hygiene inspections of the raw water from these systems are performed on a regular basis in order to prevent the hazardous discharge of legionella bacteria into the outside air via aerosols.

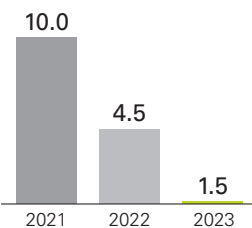


Emissions

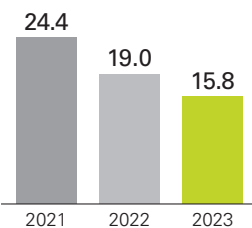
CO₂ equivalents
in 1,000 t



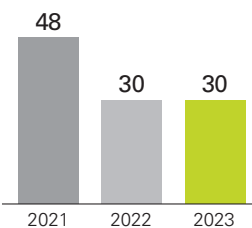
CO₂ equivalents per TEUR
gross value added
in kg



Volatile organic compounds (VOC)
in t



VOC emissions per TEUR
gross value added
in g



In 2022 and 2023, we fully transitioned our heating to climate-neutral district heating. This step was responsible for a significant reduction in CO₂ equivalents.



Legal and regulatory emission limits and measurement results

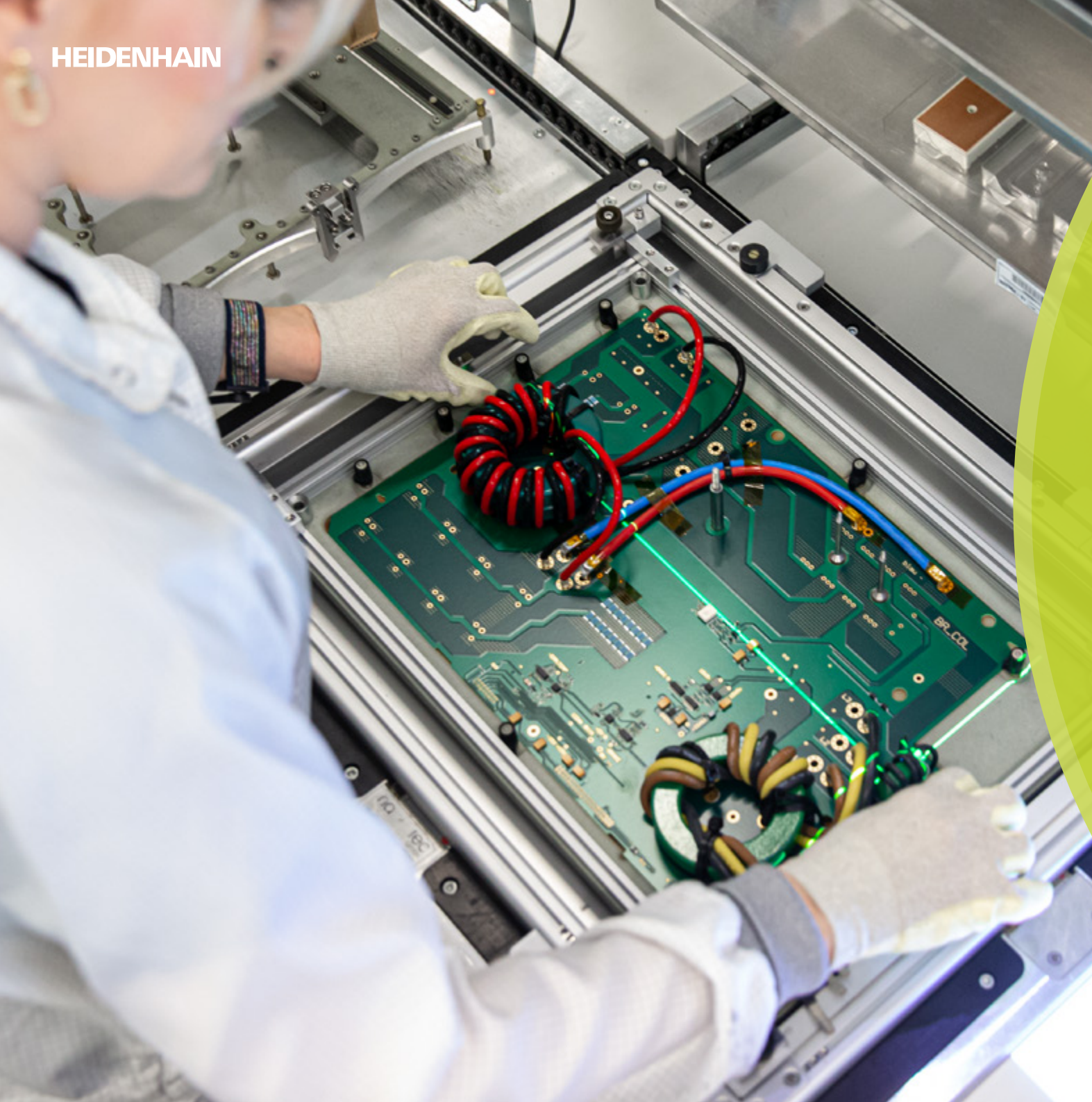
	Unit	Limit	Measurement
Combined heat and power plant			
Carbon monoxide	mg/m ³ NC	300	< 20
Nitrogen oxides	mg/m ³ NC	250	< 240
Formaldehyde	mg/m ³ NC	20	< 5
Sulfur oxides	mg/m ³ NC	10	< 1
Boiler plant			
Nitrogen oxides	mg/m ³ NC	150	< 56
Emissions loss	% NC	9	< 7
Graduation production			
Total carbon A40 exhaust air system	mg/m ³ NC	75	35
Total carbon E90 exhaust air system	mg/m ³ NC	75	15
Total carbon E92 exhaust air system	mg/m ³ NC	75	47

The results (in mg/m³ NC = mg/m³ in normal condition) are taken from the measurement reports of the accredited measuring body. For the combined heat and power plant, the measured maximum value of the four modules is stated. For the boiler plant, the measured maximum value of both boilers is stated. The officially required measurement interval is three years. The most recent measurement date for the combined heat and power plant was in 2022. The most recent measurement date for surface cleaning in the graduation production department was also in 2022.



Heinrich Friedl
Environmental Services

Even after adjusting for the effects of the drop in production, we were still able to reduce our CO₂ emissions.



BEYOND THE ENVIRONMENT

Responsibility toward employees, their safety and the supply chain

OUR RESPONSIBILITY TOWARD EMPLOYEES

Our employees exemplify expertise, passion and creativity. To help them optimally contribute to the company and reach their full potential, we nurture and support young talent and longstanding professionals alike, providing attractive benefits and promoting ecological awareness.

Above-market compensation

We value the high performance of our employees and compensate it accordingly. At HEIDENHAIN, all our employees are paid at least in accordance with the collective bargaining agreement of the IG Metall trade union. This is supplemented by various extra benefits, such as the following:

- Monthly profit sharing, which allows our employees to benefit directly from the company's success and their key role in achieving it
- Voluntary corporate bonus for workers on rotating shifts
- A significantly above-market corporate pension
- A 10-year work anniversary bonus

Vocational training and continuing education

Education and expertise are essential in a technology company like HEIDENHAIN. For over 70 years, we have been offering a successful vocational apprenticeship program that now encompasses eleven different career fields. We also support undergraduate students with internships and scholarships and offer dual study programs in eight majors. Our vocational apprentices are often top-of-their-class in a Germany-wide comparison. In 2023, this applied to apprentices in our microtechnology and industrial optics technician programs. In addition to a first-rate apprenticeship in a modern training center with state-of-the-art equipment, our apprentices enjoy a variety of benefits, ranging from health seminars and addiction-prevention training to driver safety instruction and in-house hiring opportunities.



FACTS

EUR 13.8 million

Invested in education

2,928

Employee participants in continuing education

191

Vocational apprentices

104

Students in dual study programs

239

Continuing education courses

100%

Of our employees receive an annual performance evaluation

We also continually train our longstanding employees. In 2023, the number of employees participating in continuing education courses numbered 2,928 (for in-house and external courses). Our specialist career path is an opportunity for employees who wish to deepen their skills without assuming a supervisory role. And our “Skills and Knowledge” program financially supports career-advancement training for employees who wish to become certified production supervisors, technicians, industrial managers and more.

Work flexibility: at home, in the office and in production

To make it easier for employees to balance work, family and private commitments, HEIDENHAIN has significantly increased the flexibility of its timekeeping policy. Employees with flextime are free to organize their own breaks and work times within a 6:00 a.m. to 8:00 p.m. window.

Many of our employees also work from home part of the time if their duties allow. This not only provides flexibility but also helps the environment. Due to our rural location, 60% of HEIDENHAIN employees would normally drive 11 km to 40 km to work each day. With over 1,000 employees working from home part of the time, the emissions reduction from less driving is considerable.

Flexible production shifts

Our production departments are moving away from rigidly defined work times toward giving employees a greater say. This is proving to be beneficial but requires adjustment periods and clear communication within teams. Just one hour at the beginning of the shift is fixed. Beyond that, teams are free to coordinate their breaks and work times among themselves. And since 2023, our metalworking department has been running a pilot project that allows employees to arrange all their work times themselves in a flexible shift-work model.

Promoting environmental awareness

The actions of every employee affect our corporate ecological footprint and help to minimize it. In exchange, we provide multiple benefits that reduce the ecological footprint of our employees: Since 2023, twenty parking spaces with charging stations have been available to employees who wish to charge their vehicles during work. Twenty-four charging stations for e-bikes have been available since 2023 as well. For employees who bike to work, we also offer showers and changing rooms. To promote employee and environmental health, we actively encourage employees to leave their car at home and bike to work instead.



It is firmly anchored in our founding principles that employees should share in the success of the company and receive as much work flexibility as possible. This is still true today! Our employees enjoy attractive, above-market benefits and flexible time models.

Andreas Piehler
Head of Labor Law & Social Affairs



MEASURES FOR OCCUPATIONAL HEALTH AND FIRE SAFETY

Fully equipped and ready to respond

Protecting employees from hazards and health risks in their everyday work is of prime importance at HEIDENHAIN. Our Traunreut and Hochreit sites counted 33 reportable work or commuting accidents in 2023, down by 36% from the previous year. There were also four fires in 2023, but none involved injuries. In the event of a fire, the Plant Security team is qualified to take rapid preliminary measures before the city fire department arrives.

Fire safety improvements in 2023:

- Purchase of a small, electric-powered vehicle equipped with barrier supplies, wet vacuums and small fire extinguishers
- Optimization of firefighting gear for 25 Plant Security employees
- Basic fire safety training for all 30 Plant Security employees



Ingo Klepke
Fire safety officer at HEIDENHAIN
and voluntary district fire chief of the
Traunstein District Fire Office

FACTS

Approx. **13,000**
fire and smoke detectors

More than **220** fire safety helpers

30 Plant Security employees for 24/7 vigilance

Plant security and fire safety go hand in hand. We've significantly improved our on-site response times in recent years thanks to a strong emphasis on fire safety and our investment in fire-fighting equipment and technology.



OUR SUPPLY CHAIN IN FOCUS

Local, near and collegial

HEIDENHAIN has always worked closely with regional suppliers. Of our 4,800 suppliers of services and production materials, 4,200 are based in Germany. A detailed risk analysis in 2023 found that none of them pose a risk in terms of the environment, human rights or employment standards.

The production materials needed at our product manufacturing plants in Traunreut and Hochreit come from roughly 800 suppliers. Of these, around 10% are located less than 50 km away from our production sites. Their close proximity allows us to handle some of the transport ourselves, allowing us to

optimize routes and reduce emissions. What's more, 70% of our suppliers' goods are transported in reusable packaging, which reduces waste.

Short distances and dependable partners also play an important role in meals provided to our employees. Of our 24 cafeteria suppliers, 14 are located less than 50 km away. Eggs and some of our meat, for example, are sourced from select organic farms. Our coffee comes from regional roasters. It's our way of ensuring fresh, high-quality and sustainably sourced food and beverages for our employees.

FACTS

70%

Rate of reusable packaging for supplied materials

10%

Proportion of production-material suppliers less than 50 km away

Compared with 2022



Michael Reichl
Director of Logistics

Implementing the German Supply Chain Act confirmed that our suppliers have high standards. We will continue to keep environmental protection, human rights and employment standards in focus throughout our supply chain. In fact, the new legal standards are an affirmation that we have already been selecting and assessing our suppliers using the right criteria.

ENVIRONMENTAL OBJECTIVES

Setting the right
objectives, getting the
right results



EMPLOYEES PROCESSES PRODUCTS

From noise barriers to company-owned wind turbines, we set objectives both large and small

Objectives are an essential part of our environmental and sustainability policy. All of them, whether small-scale or ambitious, help us protect our employees and continually reduce our environmental impacts.

Our annual environmental protection and occupational health and safety program, which is approved by the Management Board, is developed based on objectives defined through a continuous improvement process covering all aspects of corporate environmental protection and occupational health and safety. Aimed not only at meeting applicable legal requirements, many of our objectives actually exceed them.

Objective	Measures	Deadline
Energy consumption, emissions and greenhouse gases		
Reducing emissions	<p>Vapors arising from our use of cleaning solvents during graduation production are removed via exhaust ventilation. To reduce the proportion of solvents in the removed air, we will trap them by installing an activated-carbon filter. We will also install a VOC absorption system that will incinerate any residual substances in a controlled manner.</p>	2024
	<p>To further reduce our CO₂ emissions, we will connect more office, production and warehouse buildings at our Hochreit site to the district heating network and will dismantle the currently used gas-fired boiler. This step will save nearly 120 tons of CO₂ each year.</p>	
Reducing energy consumption	<p>Our environmental objective for the new R&D building is the German EG 40 building standard. The building is to be carbon-neutral thanks to complete thermal insulation and the use of renewable geothermal and photovoltaic energy sources. We will be applying for certification by the DGNB (German Sustainable Building Council).</p>	2026
	<p>Adhesives used during the assembly of our rotary and angle encoders are cured in special ovens. The resulting air is removed via an exhaust ventilation system. To ensure that this system is used only when needed, we will be equipping it with automated butterfly valves.</p>	2024
	<p>Lighting also has a significant impact on our power consumption. Renovations to our parking garages and metalworking buildings will save up to 330,000 kWh of electricity.</p>	
	<p>Compressed air is used in many production steps and is another key driver of energy consumption. To achieve savings, we will purchase new air compressors, optimize air lines and reduce the network pressure, thereby saving 95,000 kWh of electricity. We will also reduce the amount of compressed air used, thus lowering the electricity consumption by 5% per service hour.</p>	
<p>As a further energy-saving measure, we will switch to LED technology for the UV lamps used in curing the special adhesives during rotary and angle encoder production.</p>		

Objective	Measures	Deadline
Energy consumption, emissions and greenhouse gases		
Shifting to other energy sources	To meet our energy needs, we will increasingly rely on various ecologically sustainable energy sources:	2024
	<ul style="list-style-type: none"> ■ Geothermal energy: During the production of extrusions for our linear encoders, oils and greases are removed in a cleaning system at an operating temperature of 50 °C to 60 °C. In the future, the cleaning media will be heated to the required temperature using geothermal heat, and a new system will be put into operation. The power consumption of this system will thus be reduced by around 70%. 	
	<ul style="list-style-type: none"> ■ Solar energy: We will install additional photovoltaic panels on the roofs of our two parking garages. This project is currently in the planning phase. 	2025
	<ul style="list-style-type: none"> ■ Wind power: We are currently seeking approval to build two wind turbines for our own corporate use. The estimated annual yield will cover around one-third of our electricity needs. How quickly the project can be implemented depends on the length of the approval process and on the availability plus delivery times of the wind turbines themselves. 	2026
Resource consumption, chemicals and waste products		
Reducing hazardous substances	Cooling lubricants are essential to our metalworking processes for cooling stock, lubricating equipment and transporting chips along with other waste products. By the end of the year, we will have switched to an eco-friendly, formaldehyde-free cooling lubricant in all equipment.	2024
Improving recycling	Tin and solder paste play an essential role in producing electronic assemblies. Inspired by an internal employee suggestion, we will start recycling tin and solder paste through a special service provider starting in 2024. This step has two benefits: the quality of recycling will greatly improve, and we will receive CO ₂ certificates for the recovered materials.	2024
Product usage		
More eco-friendly packaging	Fine-tuned for high performance and a long service life in complex systems, our high-tech products often require special care when being transported to customers. One of our common packaging materials is convoluted foam. In particular, we have been using approx. 10 t of polyurethane foam per year. But this material is difficult to recycle. In the future, we aim to replace it with easily recyclable materials.	2024
Analyzing product carbon footprints	To increase the visibility of our carbon emissions, we will calculate the product carbon footprint for select products in accordance with ISO 14067.	2024

Objective	Measures	Deadline
Water		
Wastewater treatment	Our glass machining operations include polishing, which leaves behind particles in the process water. To further improve our wastewater treatment, we will put a mixing and equalization tank into operation that allows the polishing sludge to settle to the bottom. The resulting clean water can then be released into the sewer system.	2024
Conserving water	During graduation production, the final cleaning stage requires ultrapure water, which we produce using special equipment. But operating this equipment entails a certain amount of water loss. Through additional valve technology, we aim to reduce this loss by 50%.	2024
Biodiversity		
Creating wildflower lawns	Green wildscapes promote biodiversity. We aim to enlarge these spaces to more than 20% of our total unused grounds. To achieve this goal, regularly mowed lawns will be converted into wildflower lawns.	2024
Occupational health and safety		
Optimizing ergonomics	We still see potential for improving workplace ergonomics, especially for our production employees. This includes optimizing the height of work surfaces by altering shelf trolleys or by using adjustable worktables. Purchasing ergonomic seats, eyepieces and macrosopes will further improve work conditions.	2024
Reducing physical stress in production departments	Through automated chains of production equipment, we will reduce lifting and carrying tasks for our production employees. And during cable-connector testing, we will deploy lever and gripping mechanisms that allow employees to connect and disconnect multiple cables at the same time, thereby significantly reducing strain on their joints.	2024
Noise protection	Because noise can negatively affect personal well-being and health, we will be taking noise-reduction measures, particularly in our manufacturing areas. These measures include: <ul style="list-style-type: none"> ■ Movable noise barriers in planning offices near production areas ■ Relocation of fume extraction units from workstations to a crawl space under the floor ■ Switching to special, quieter compressed-air nozzles for removing excess cooling lubricant, lowering the air pressure in the lines and training employees in the proper use of compressed air ■ New silent rooms for focused working 	2024

TRACKING AND REACHING OBJECTIVES

Results from the environmental objectives set in 2023

The environmental and occupational health and safety measures from previous years have had an effect. Most of our past objectives have been reached. We succeeded in reducing our environmental impacts while improving the health and safety of our employees. In our tireless effort to become better, we continue to work hard on the objectives we have set. These objectives undergo an annual review in conjunction with our Management Board and are redefined as needed.

The qualitative and quantitative reductions in our environmental impacts are based on environmental data from yearly reports.

Objective	Outcome of implemented measures
Energy consumption, emissions and greenhouse gases	
Increased share of renewable energy sources	<p>Along with power usage, the natural gas consumption at our headquarters in Traunreut and at our German manufacturing companies is now climate-neutral. Through changes to our supplier contracts, we have been sourcing only carbon-offset natural gas since 2023. This voluntary offset is attained through certified emission-reduction credits that use climate projects to compensate for our emissions.</p> <p>Through the installation of photovoltaic panels on the roofs of two corporate buildings at the Hochreit site, more than 820 MWh of electricity will be generated per year starting at the beginning of 2024.</p>
More energy-efficient building services technology	To increase the energy efficiency of our building services, we optimized the compressed air network, thereby allowing us to save around 170 MWh of electricity per year. And by applying process optimization to our compressed air system in the metalworking department, we can reduce our electricity consumption by a further 600 MWh per year.
Promoting e-vehicle adoption	<p>All factory traffic is gradually being switched to electric vehicles. Five vehicles with conventional combustion engines have already been replaced by e-vehicles. And there will be more to come.</p> <p>To promote the adoption of e-vehicles by employees, we have set up 20 charging stations for electric cars and 24 charging stations for electric bikes.</p>
Resource consumption, chemicals and waste products	
Reducing waste	Our waste-paper recycling rate has significantly increased due to case-by-case optimization of our office waste separation process.



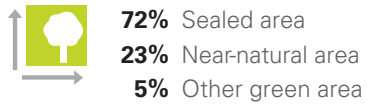
CORE INDICATORS AND CERTIFICATIONS

Essential information
at a glance

CORE INDICATORS AS PER EMAS*

Land use

(size of property, sealed area and near-natural area)



Electricity

100% green electricity from renewable sources



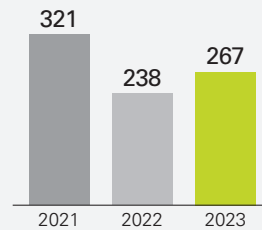
Total energy consumption in 2023: 62.2 GWh

Of which 52.2 GWh were from renewable sources

Water

Water consumption

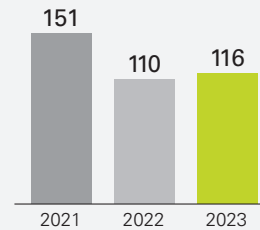
Per TEUR of gross value added in dm³



Energy

Energy consumption

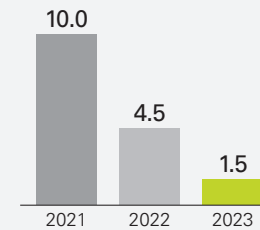
Per TEUR of gross value added in kWh



Emissions

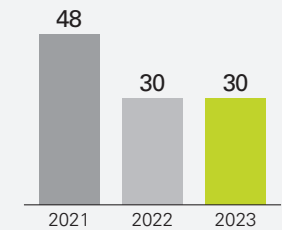
CO₂ equivalents

Per TEUR of gross value added in kg



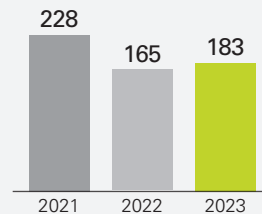
VOC emissions

Per TEUR of gross value added in g



Wastewater quantity

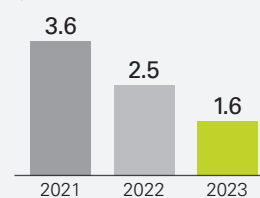
Per TEUR of gross value added in dm³



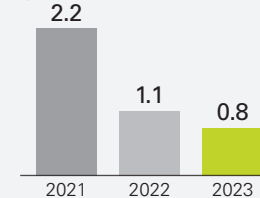
Raw materials

Mass-flow of key materials used

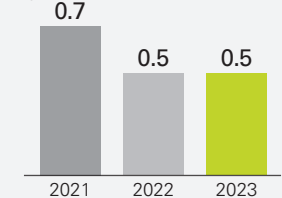
Aluminum
Per TEUR of gross value added in kg



Steel
Per TEUR of gross value added in kg



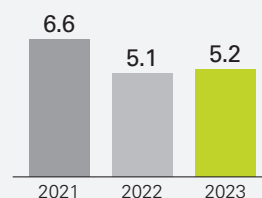
Flat glass
Per TEUR of gross value added in kg



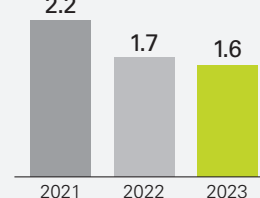
Waste

Waste amount by type

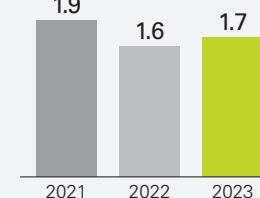
Total waste
Per TEUR of gross value added in kg



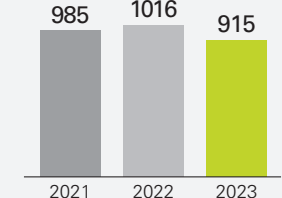
Metal waste
Per TEUR of gross value added in kg



Hazardous waste
Per TEUR of gross value added in kg



Hazardous waste
in t



*Due to the reduced utilization of production capacity in 2023, gross value added fell more sharply than consumption (e.g., energy and water). For this reason, some of the values are worse than those of the previous year.

ENVIRONMENTAL PERFORMANCE OVERVIEW

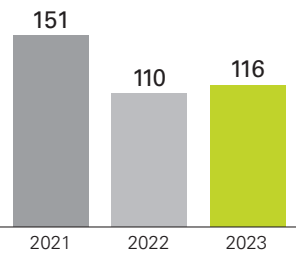
Thanks to the efforts of our employees in Traunreut and Hochreit, our environmental results for 2023 showed improvement. Our input-output statement summarizes the environmentally relevant material and energy flows already described on the previous pages and is the basis for assessing the environmental impacts of our economic activities.



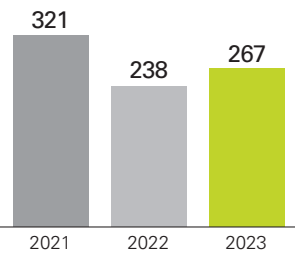
Input-output statement (per TEUR of gross value added*)

Input

Energy consumption in kWh

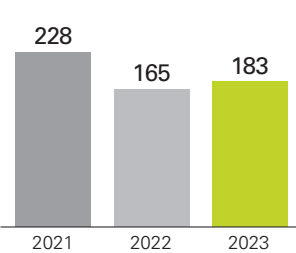


Water consumption in dm³

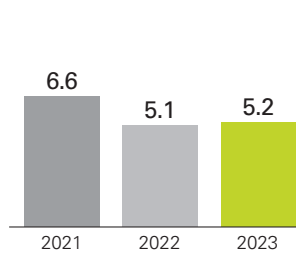


Output

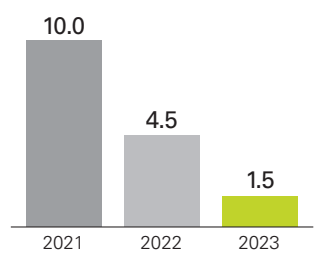
Wastewater in dm³



Waste in kg



CO₂ equivalents in kg



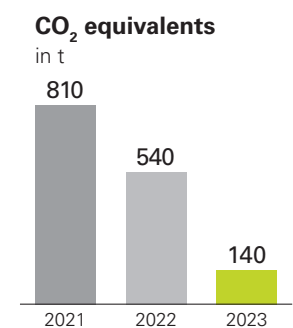
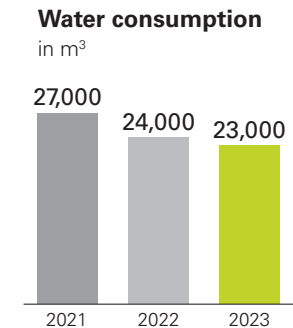
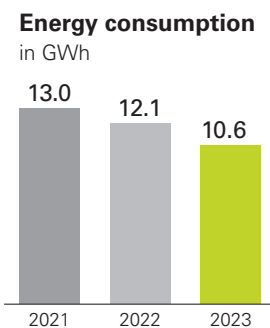
*Due to the reduced utilization of production capacity in 2023, gross value added fell more sharply than consumption (e.g., energy and water). For this reason, some of the values are worse than those of the previous year.



A CLOSER LOOK AT OUR HOCHREIT SITE

Our Hochreit site covers an area of 164,000 sqm. Its metalworking and graduation production facilities provide around 9,000 sqm of production space. The site is also home to our state-of-the-art logistics center, covering roughly 7,100 sqm. Just like at our headquarters in Traunreut, we are environmentally conscientious about the Hochreit site's open spaces. The employee parking lot, for example, uses water-permeable gravel instead of paving, allowing rainwater to drain directly into the ground. Meanwhile, orchard meadows and other near-natural spaces surround the buildings.


We have been able to continuously reduce the energy and resource consumption at our Hochreit site in recent years.



GRI content index

DR. JOHANNES HEIDENHAIN GmbH has reported the information stated in this GRI index for the period of January 1, 2023, to December 31, 2023, with reference to the GRI standards. This reporting used the "GRI 1: Foundation 2021" standard.

GRI standard	Topic	Pages	Sustainable Development Goals
GRI 2: General Disclosures 2021	2-1 Organizational details	5 – 6	
	2-3 Reporting period, frequency and contact point	56 – 58	
	2-5 External assurance	57	
	2-30 Collective bargaining agreements	39	
	2-6 Activities, value chain and other business relationships	5 – 9, 44	
	2-22 Declaration on sustainable development strategy	2	
	2-23 Policy commitments	20 – 22	
	GRI 301: Materials 2016	301-1 Materials used by weight or volume	33 – 34
GRI 302: Energy 2016	302-1 Energy consumption within the organization	31, 55	
	302-3 Energy intensity	31, 55	
	302-4 Reduction of energy consumption	28, 49, 52	
	302-5 Reductions in energy requirements of products and services	15 – 17	
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	28	
	303-2 Management of water discharge-related impacts	29	
	303-3 Water withdrawal	29	
	303-4 Water discharge	29	
	303-5 Water consumption	29	

GRI standard	Topic	Pages	Sustainable Development Goals
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	35, 36	
	305-2 Energy indirect (Scope 2) GHG emissions	35	
	305-4 GHG emissions intensity	36, 55	
	305-5 Reduction of GHG emissions	35, 49	
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	37	
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	26	
	306-2 Management of significant waste-related impacts	25, 50	
	306-3 Waste generated	26, 55	
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	23	
	403-2 Hazard identification, risk assessment, and incident investigation	23	
	403-5 Worker training on occupational health and safety	23	
	403-8 Workers covered by an occupational health and safety management system	23	
	403-9 Work-related injuries	42	
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	40	
	404-3 Percentage of employees receiving regular performance and career development reviews	40	

STATEMENT BY THE ENVIRONMENTAL AUDITOR

The signing party, Dipl.-Ing. Wolfgang Brandl, EMAS environmental auditor from **TÜV SÜD Landesgesellschaft Österreich GmbH**, with registration number AT-V-0003, accredited for group 26.5 (NACE code), hereby confirms that he has evaluated whether the corporate site stated in the Environmental Declaration of the organization

DR. JOHANNES HEIDENHAIN GmbH
Dr.-Johannes-Heidenhain-Str. 5
83301 Traunreut, Germany,

including the Hochreit facility (Fraunhoferstr. 1) with registration number D-155-00010, fulfills all of the requirements of Regulation (EC) No 1221/2009 of the European Parliament, and of the Council, of 25 November 2009, regarding the voluntary participation by organizations in an EC system for eco-management and auditing (EMAS), updated by Regulations (EU) 2017/1505 and (EU) 2018/2026.

April 11, 2024, Munich, Germany

Wolfgang Brandl
 Environmental Auditor

With the signing of this Statement, it is hereby confirmed that

- the expert assessment and validation were conducted in full accordance with the requirements of Regulation (EC) No 1221/2009, updated by Regulations (EU) 2017/1505 and (EU) 2018/2026,
- the result of the expert assessment and validation confirms that there is no evidence of any non-compliance with the applicable environmental regulations,
- and that the data and information contained in the updated Environmental Declaration for the company location provide a reliable, plausible and truthful portrayal of all activities at the location in the area stated within the Declaration.

This Statement is not equivalent to an EMAS registration. EMAS registration may be conducted only by a competent authority in accordance with Regulation (EC) No 1221/2009, updated by Regulation (EU) 2017/1505. This Statement must not be used as the sole basis for informing the public.

The submission of an updated Environmental Declaration is planned for 2025.



DR. JOHANNES HEIDENHAIN GmbH has been validated in accordance with the European Eco-Management and Audit Scheme (EMAS) since August 21, 1996.



DR. JOHANNES HEIDENHAIN GmbH has been certified in accordance with the international environmental management standard DIN EN ISO 14001 since July 31, 1998, and with the quality management standard DIN EN ISO 9001 since 1993.

HEIDENHAIN

DR. JOHANNES HEIDENHAIN GmbH
Dr.-Johannes-Heidenhain-Straße 5
83301 Traunreut, Germany
Phone: +49 8669 31-0
Fax: +49 8669 32-5061
info@heidenhain.de
www.heidenhain.com

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Credits

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DR. JOHANNES HEIDENHAIN GmbH
Dr.-Johannes-Heidenhain-Str. 5
83301 Traunreut, Germany
www.heidenhain.com

Person responsible

Claudia Fernus, Corporate Communications,
DR. JOHANNES HEIDENHAIN GmbH
E-mail: presse@heidenhain.de

Concept, editing and translation

Stephanie Engel, Ulrich Poestgens,
Marketing Communications,
DR. JOHANNES HEIDENHAIN GmbH

Contact person

for questions about the report
Karl Landinger, Environmental Officer