

Thinking ahead

Sustainability report 2023

Preface

Dear readers,

On behalf of the Grenzebach Group, I am pleased to present our sustainability report. This report is more than a collection of facts; it is our promise for the future and to future generations, driven by our strategy and our deeply rooted values.

At Grenzebach, innovation and sustainability come together. We think ahead, not because it is expected, but because it is in our DNA. Quality, responsibility, appreciation, sustainability, and reliability are the pillars on which our solutions, our work, and our cooperation are based. These values guide us as we shape the future together.

We believe that sustainability is not just a buzzword, but a part of our reality. We are convinced that economic success and sustainability can and must go hand in hand. That is why we have made it our goal to continuously improve our business practices, making a positive contribution to society and the environment as well as ensuring that our activities and solutions leave a small footprint.

In this report, we would like to show you how we actively integrate sustainability into all areas of our company. We will transparently present our progress, challenges and successes to give you a comprehensive insight into our commitment to sustainability.

We understand that sustainability is a cyclical process that requires continuous effort. Despite this, we are full of optimism and commitment to making our contribution to a sustainable future.

I would like to thank all our employees for doing their best every day to achieve our sustainability goals. Their dedication, endorsement, and passion are the key to our success.

I would like to conclude by encouraging you, dear readers, to accompany us on our journey, to give us feedback and work with us towards a more sustainable tomorrow for current and future generations.

Thank you for your interest in the Grenzebach Group and our commitment to sustainability. Let's all work together to show what creating a future worth living means.



Dr. Steven Althaus
CEO Grenzebach Group



6 Executive Summary



8 Grenzebach Group



20 Scope & stakeholders



26 Strategy & governance



34 Key aspects



50 Goals, processes & forecast





Content

6	Executive Summary	32	Key aspects
8	Grenzebach Group	32	Corporate management
8	Company	35	Innovations
10	Employees	38	Environment
12	Technologies	43	People
14	Finances	46	Supply chain
16	Strategy	48	Goals, processes & forecast
18	Management	52	Annex
20	Scope & stakeholders	52	Management review according to ISO
20	Meaning of sustainability	59	Summary
22	Dialog & partnerships		
24	Key sustainability issues		
26	Strategy & governance		
26	Sustainability strategy		
28	Systems & processes		

* In the text – for reasons of simpler language and without any intention of discrimination – only the form of the generic masculine is used. In principle, all genders (m/f/x) are thus included.

EXECUTIVE SUMMARY

The Grenzebach Group is an international, family-controlled group of companies that has been offering customized automation solutions for the glass and building materials industry as well as other industries for over 60 years. With a global presence and around 1,600 employees, Grenzebach focuses on innovation, flexibility, and sustainability. The company follows a clear strategy to seize opportunities in times of change and enable long-term success through agile processes and close collaboration with customers, partners, and employees.

Grenzebach's dedication to sustainability is reflected in the continuous improvement of its products and services and the implementation of environmentally friendly technologies. The Group is committed to significantly reducing CO₂ emissions, using resources efficiently, and promoting the circular economy. Innovative projects such as the phosphorus recycling process

or the Ultra High-Efficiency Dryer demonstrate Grenzebach's pioneering spirit in sustainable solutions.

Grenzebach creates trust through transparent communication with stakeholders and promotes a culture of shared success. The Group is committed to fair working conditions, occupational safety, and diversity in the workplace. In addition, The Group sees itself as a strategic partner to its stakeholders and focuses on long-term relationships based on close cooperation and dialog.

Therefore, the Grenzebach Group established the NEXT strategy. The NEXT strategy for the future is designed to identify opportunities in the global market while proactively managing risks. Grenzebach intends to achieve ambitious targets by 2050 like continued reduction of CO₂ emissions, increased en-

ergy efficiency in production and its solutions, and strengthen its clear commitment to environmental responsibility.

With its innovative spirit and deep understanding of market needs, the Grenzebach Group is a reliable partner for its customers on the road to a sustainable future.



be
sustainable
be Grenzebach

NEXT GRENZEBACH

From Hamlar into the world

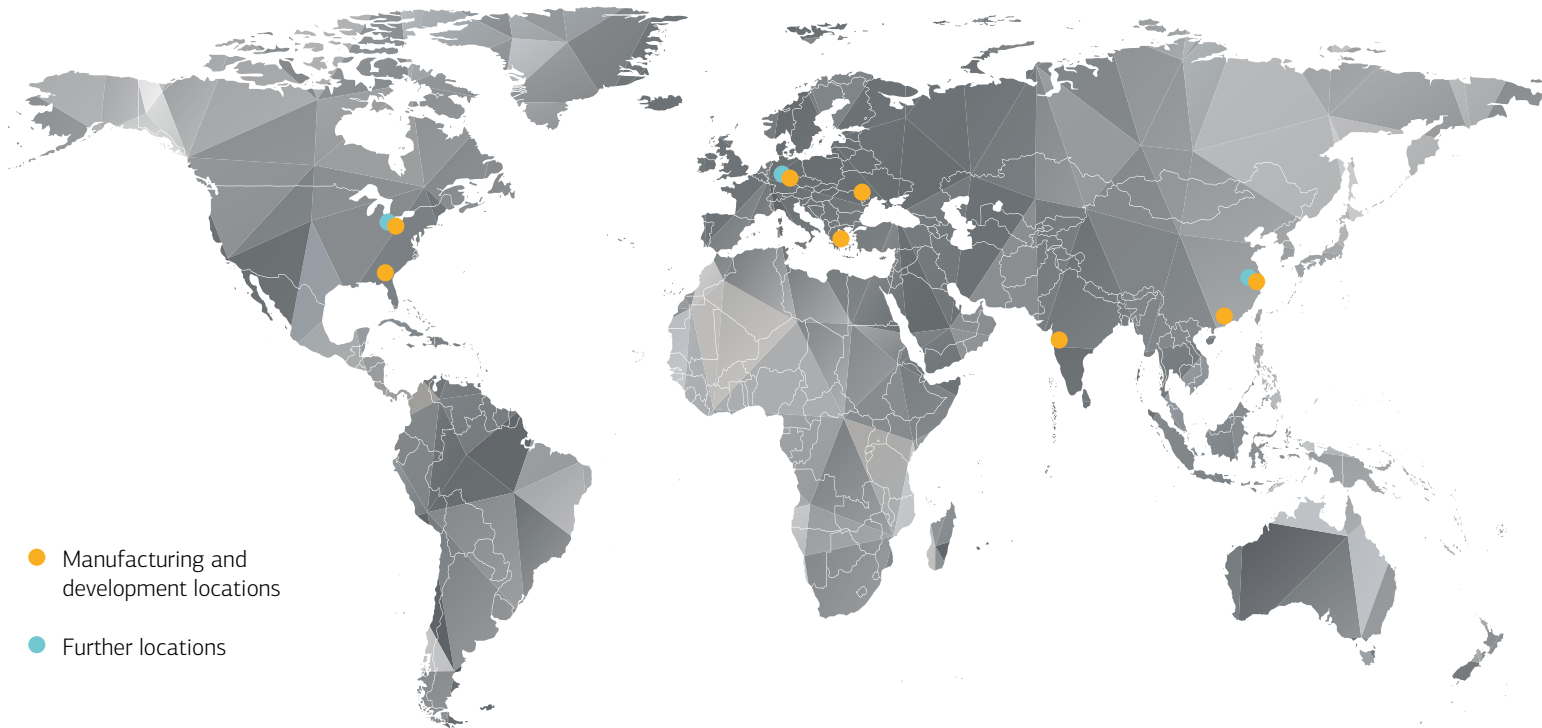
The Grenzebach Group develops tailor-made automation solutions for the global glass and building materials industry. In addition, we are constantly tapping into new application areas, such as intralogistics solutions, different recycling processes, friction stir welding, the automation of additive manufacturing, and digital networking. Grenzebach has been family-owned since it was founded in 1960. This continues to shape the strategy and cooperation within the Group to this day.

By the end of 2023, the Grenzebach Group employed around 1,600 people at 15 locations in eight countries. The headquarters of the internationally active group of companies is Grenzebach Maschinenbau GmbH, based in Asbach-Bäumenheim, Hamlar, in the Donau-Ries district of Bavaria.



"THE GROUNDWORK FOR THE GRENZEBACH GROUP WAS LAID OVER 60 YEARS AGO IN HAMLAR, BAVARIA. TODAY, WE DO BUSINESS WORLDWIDE WITH PASSION AND A PIONEERING SPIRIT. FROM EUROPE TO AMERICA TO ASIA - HAVING A GLOBAL PRESENCE IS THE ESSENCE OF OUR STRENGTH, ALWAYS CLOSE TO OUR CUSTOMERS AND STILL A MEDIUM-SIZED COMPANY AT HEART."

Egbert Wenninger
CCO Grenzebach Group



● Manufacturing and development locations

● Further locations

WITH A **90 %** SHARE OF ORDERS THAT ARE EXPORTED GRENZEBACH IS A GLOBAL PLAYER IN ITS CORE MARKETS.



GRENZEBACH'S GLOBAL NETWORK

Strong together

The main manufacturing and development sites of the Group are located in China (Jiashan, Shunde), Germany (Hammlar, Bad Hersfeld), Greece (Athens), India (Pune), Romania (Iași), and the USA (Newnan, GA). Two subsidiaries, inos Automationssoftware GmbH, based in Stuttgart, Germany, and Millennium Control Systems LLC, based in Eastlake, Ohio, complete the Group's network.



Values that define us

Grenzbach has been conquering its core markets with passion, openness, and a pioneering spirit since the company was founded. You cannot help but feel it: The employees of the Grenzbach Group act with dedication and are a vibrant, constantly evolving community that follows our core values. Today, with over 1,600 employees, the reliability, stability, enthusiasm, and mutual respect still characterize Grenzbach's internal and external collaboration.

THE BEGRENZBACH VALUES ARE THE BASIS FOR THIS TRUSTING AND APPRECIATIVE COOPERATION AND ARE PART OF THE GRENZBACH DNA, WHICH IS SUPPORTED BY ALL EMPLOYEES.

be QUALITY-CONSCIOUS

We think ahead and continuously optimize the efficiency and effectiveness of our products and processes.

be RESPONSIBLE

We always act responsibly towards our employees, colleagues, customers, and our environment.

be SUSTAINABLE

We are careful to make sustainable use of the required resources.

be APPRECIATIVE

Our employees are our most valuable asset. We build on long-term customer relationships.

be RELIABLE

We deliver what we promise – internally and to our customers.

WE ARE GRENZEBACH

People you can rely on

Grenzebach's strength is the people behind the group. Working with the people at Grenzebach means meeting individuals who contribute their skills and personalities to projects and their daily work. For this reason, the Grenzebach Group is heartfelt about creating a place for these people where they can develop, grow, and feel secure.



"People are the focus, not only in my degree course but also at Grenzebach. I was impressed by the informal and open working atmosphere right from the start. I currently support the Training and Health and Wellbeing teams. This is a lot of fun because I can contribute creatively to the projects and manage them independently."

Tom Rathgeb
Working student at HR, studies Business Psychology



"Working at Grenzebach has been a fantastic experience, with plenty of opportunities for growth and development. From day one, I've felt supported and encouraged to take on new challenges and pursue my interests. The culture here is one of collaboration and innovation, and everyone is committed to helping each other succeed. Overall, it's a great place to work and build a career."

Hesham Sheta
IT Systems Administrator



"Here at Grenzebach, I'm not only part of a department or a location. I am part of a great vision to which each and everyone plays their part. I can feel this across all levels and in the many benefits such as the flexible working hours model or our training programs offered by employees for employees. If you are looking for freedom to realize your dreams in combination with a practiced corporate philosophy, you will find it here!"

Xiu Chen
Strategic Buyer Purchasing/Operations

NEXT TECHNOLOGIES

From vision to reality

Since its founding, Grenzebach has been dedicated to customized automation solutions. Grenzebach sets standards worldwide in plant engineering for the glass and building materials industry. Future-oriented change is made possible by solutions in intralogistics, process engineering, additive manufacturing, casting, and friction stir welding. Grenzebach's in-depth understanding of customer requirements and expectations, as well as market trends, makes the Group a strategic journey partner in the field of industrial automation.

The Group is a global player rooted in a family-run company that embodies security, flexibility, and a spirit of innovation. We support customers worldwide in this role throughout the entire value chain and product life cycle.



SPECIAL TECHNOLOGIES

GLASS PRODUCTION TECHNOLOGY

SERVICE

BUILDING MATERIALS PRODUCTION TECHNOLOGY

DIGITAL SOLUTIONS



Glass production technology

With in-depth process knowledge and decades of experience, Grenzebach has been creating added value for the international glass industry since 1974. Whether you are interested in individual equipment parts or whole turnkey solutions, Grenzebach is the perfect partner on your journey for consulting, engineering, and project management.

Building materials production technology

From process technology and automation solutions to complete production plants - Grenzebach offers customized solutions for the production of building materials in gypsum, insulation materials, wood, process technology, and recycling.

Intralogistics

Grenzebach automates logistics processes in numerous industries using hardware and software solutions. Customers benefit from solutions that are individually tailored to their needs.

Special Technologies

The Special Technologies business unit combines three of the Grenzebach Group's special technologies under one roof: the production of cast parts, friction stir welding, and the automation of additive manufacturing.

Service

Grenzebach is a reliable partner throughout the entire life cycle of a plant – from development and planning to realization and use – and lives by the motto: We live Service. Around the clock. Around the world.

Digital solutions

With SERICY, Grenzebach offers a digital software ecosystem that enables the digitalization of production and the supply chain using artificial intelligence (AI), for example, in a very short space of time. This includes production control, monitoring, product tracking, and KPI visualization.

Vision systems

inos Automation provides intelligent vision solutions for a smart factory, such as modular, flexible, and easy-to-integrate robot control, sensors, and measurement technology.

Control systems

Millennium Control Systems is an acknowledged automation expert in numerous industries and provides support in the field of control elements and energy systems, from the concept to the implementation of new devices and the improvement of existing processes.

NEXT FINANCES

Strong foundation for sustainable decisions

A strong financial foundation is important for the Grenzebach Group because it

- » promotes stability and growth,
- » offers crisis resilience,
- » enables investment and innovation, and
- » creates trust among investors and partners.

Therefore, the Grenzebach Group has defined the goal of securing its financial health and ensuring long-term solid growth through sound financial decisions and sensible investments in sustainable infrastructure developments and research and development.

A forward-looking approach to research and development is crucial for the Grenzebach Group to maintain its innovative capacity and market leadership.

Transformation and research also enable us to meet customer needs better, increase efficiency, and prepare for future trends. The Group saw potential in the reporting year, particularly in the areas of energy efficiency in production processes, the circular economy, and renewable energies.

458

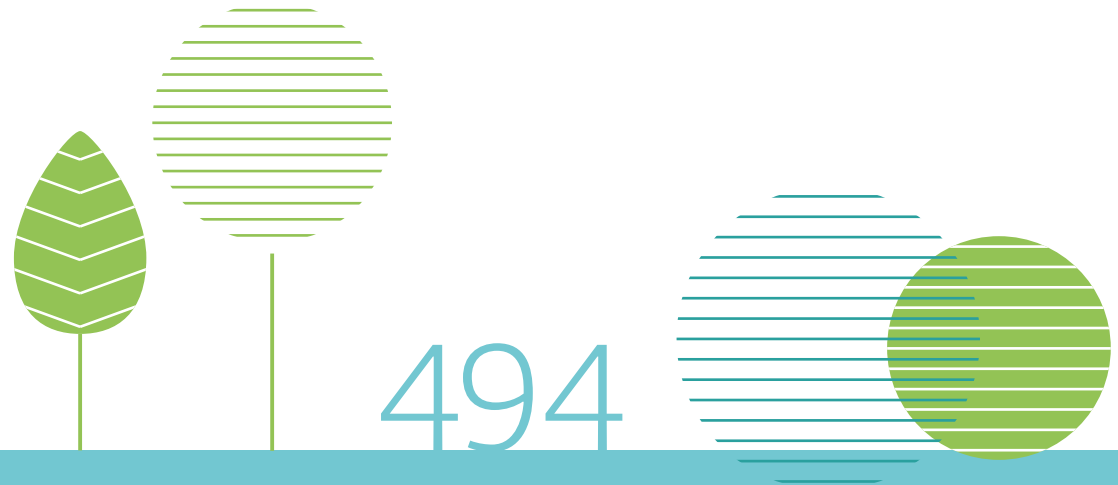
MILLION EUROS
IN REVENUE

38

MILLION EUROS EBIT

494

MILLION EUROS IN
INCOMING ORDERS



"OUR COMPANY DEPENDS ON OUR EMPLOYEES' INTUITION TO RECOGNIZE DEVELOPMENTS IN GOOD TIME AND SET THE RIGHT COURSE."

Rudolf Grenzebach
Founder of the Grenzebach Group



NEXT STRATEGY

Next stop: the future

With NEXT, the Grenzebach Group has developed a global concept that combines the strategies and plans of all locations, business units, and business fields for the coming years. NEXT is Grenzebach's roadmap for long-term success and optimal resource use. This strategy will help to set the company's direction, minimize risks, and seize opportunities, which ultimately contributes to sustainable growth and a safe future. The strategy is based on the vision of being a trustworthy and strategic partner and creating a future worth living for all generations.

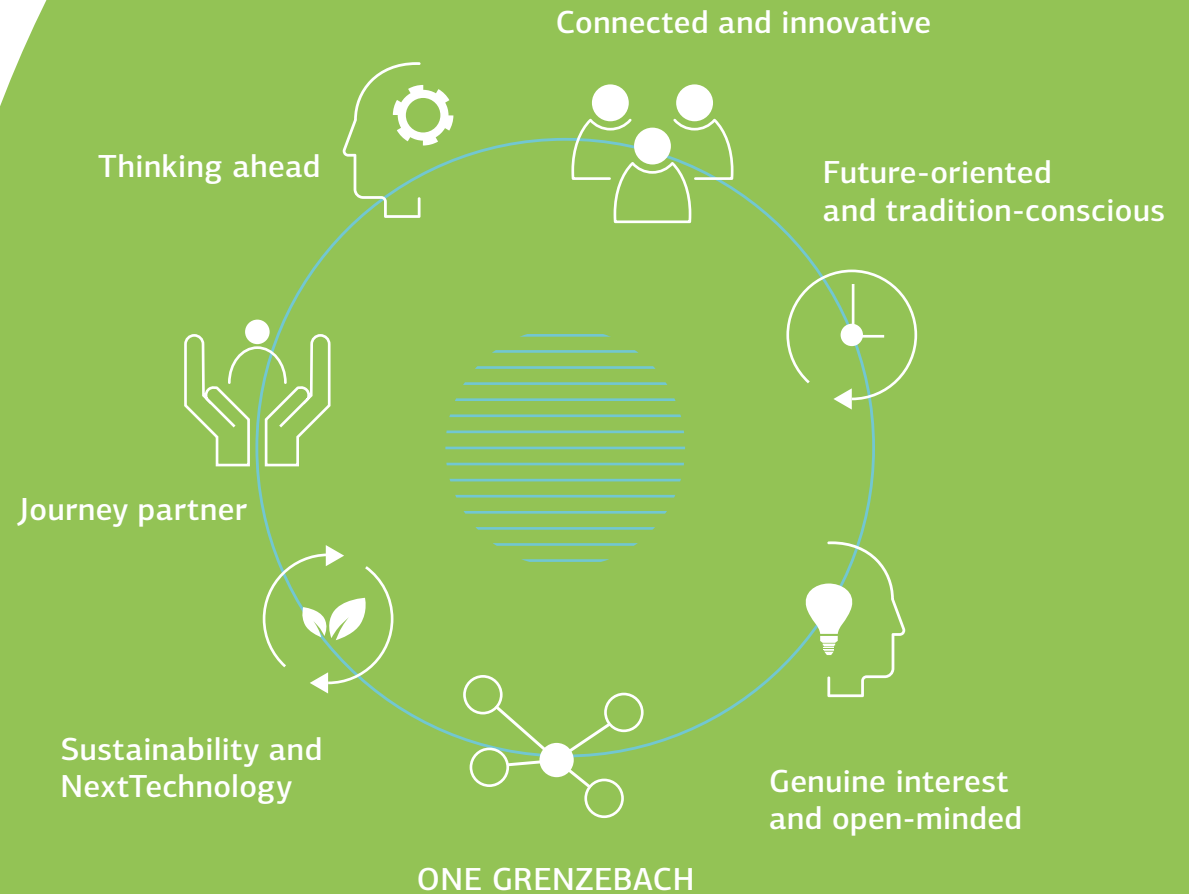
NEXT GRENZEBACH

Rethinking productivity

Protectionism, nationalization, the emergence of new ecosystems, and increased political regulation are influencing world events. The past few years and forecasts show that only if you see change as an opportunity, recognize trends early on, remain curious, and reconcile global and local conditions can you be successful in the long term. With NEXT Grenzebach, we create space for these opportunities.

Our drivers – moving forward together

Our drivers are the heart of our NEXT strategy. Our entrepreneurial spirit, quick decisions, innovative spirit, and close cooperation with our partners and customers make us strong. We are a family-controlled company and reliable journey partner for our customers, and we focus on agility and freedom of action in our decisions.



"THE NEXT STRATEGY IS OUR COMPASS FOR THE FUTURE. THIS WILL GUIDE US IN HOW GROW AS A TEAM, THINK AHEAD, AND CELEBRATE JOINT SUCCESSES. IT IS ABOUT PUSHING BOUNDARIES AND ALWAYS THINKING AHEAD. WITH NEXT, WE ARE FOCUSING ON THE FUTURE TO TAKE ADVANTAGE OF TOMORROW'S OPPORTUNITIES TODAY."

Dr. Steven Althaus
CEO Grenzebach Group



Our goals – clear and motivating

We have clear goals: We strive for peak performance and maximum customer satisfaction and want to distinguish ourselves as an attractive employer. We use innovation and a strong community to strengthen and build our market position. Every input counts in order to reach our goals. Therefore, we are working on this with openness, intuition, and commitment.

Our key topics – with an open mind

There are also clearly formulated key topics that our interest groups can use as a guide.

NEXT LOCATIONS AND NEXT BUSINESS UNITS

Strong in our customers' regions

We are in strategic proximity to our customers thanks to our global business unit structure and worldwide locations. Our NEXT Locations and NEXT Business Units strategies allow us as a globally active group of companies to respond in the best possible way to the markets and customers in our branch offices' regions – so that they can make the most of the Grenzebach Group's synergy effects.

NEXT MANAGEMENT

Management with responsibility

Grenzebach Maschinenbau GmbH is responsible for the Grenzebach Group. The management of the Grenzebach Group consists of four members with different areas of responsibility: Dr. Steven Althaus as CEO, Steffen Kaiser as CFO, Moritz Ückert as COO, and Egbert Wenninger as CCO. The sole shareholder of the Grenzebach Maschinenbau GmbH is Codymag GmbH, which manages all of the Grenzebach family's activities and business interests.

GROUP-WIDE CENTRALIZED FUNCTIONS

As the headquarters of the Grenzebach Group, Grenzebach Maschinenbau GmbH defines the strategic direction of the Group and is responsible for group-wide acquisition activities. Their tasks include the target-oriented management of the member companies and the definition of joint strategies. Grenzebach Maschinenbau GmbH, as the parent company, sets standards and provides infrastructure and guidelines to ensure transparency, corporate management, and compliance with legal regulations. With its expertise and central functions

bundled together, Maschinenbau GmbH is a versatile point of contact for various issues within the Group. Maschinenbau GmbH is also responsible for providing support through group-wide services.

Maschinenbau GmbH covers five corporate functions, including the Technical Board, Legal & Compliance, Global Operations, Finance & Business Support, and Central Functions, to optimally manage and support the Grenzebach Group's business.



DR. STEVEN ALTHAUS



STEFFEN KAISER

The Grenzebach Group regulates the processes, behavior, goals, and roles of managers and employees in all its companies with its Guiding Principles. The procedures for all significant business transactions are also defined in the respective companies' rules of procedure.



MORITZ ÜCKERT



EGBERT WENNINGER

NEXT SUSTAINABILITY

Commitment and belief

Grenzebach believes that sustainable business practices and social responsibility are essential elements for a just world worth living in. This is why the Group has decided to follow relevant sustainability standards, including the United Nations Sustainable Development Goals (SDGs), to strengthen its performance in terms of sustainability and responsible business conduct.



„STANDARDS SUCH AS THE UN GLOBAL COMPACT ARE NOT JUST A FRAMEWORK FOR US, BUT GUIDELINES THAT REFLECT OUR VALUES AND BELIEFS REGARDING HUMAN RIGHTS, LABOR STANDARDS, ENVIRONMENTAL PROTECTION AND ANTI-CORRUPTION.“

Ralf Jäger
SVP Operation & Sustainability Grenzebach Group

„WE ARE PROUD TO BE A PART OF A GLOBAL MOVEMENT FOR A SUSTAINABLE FUTURE, WHERE ECONOMIC GROWTH GOES HAND IN HAND WITH SOCIAL JUSTICE AND ENVIRONMENTAL PROTECTION.“

Steffen Kaiser
CFO Grenzebach Group

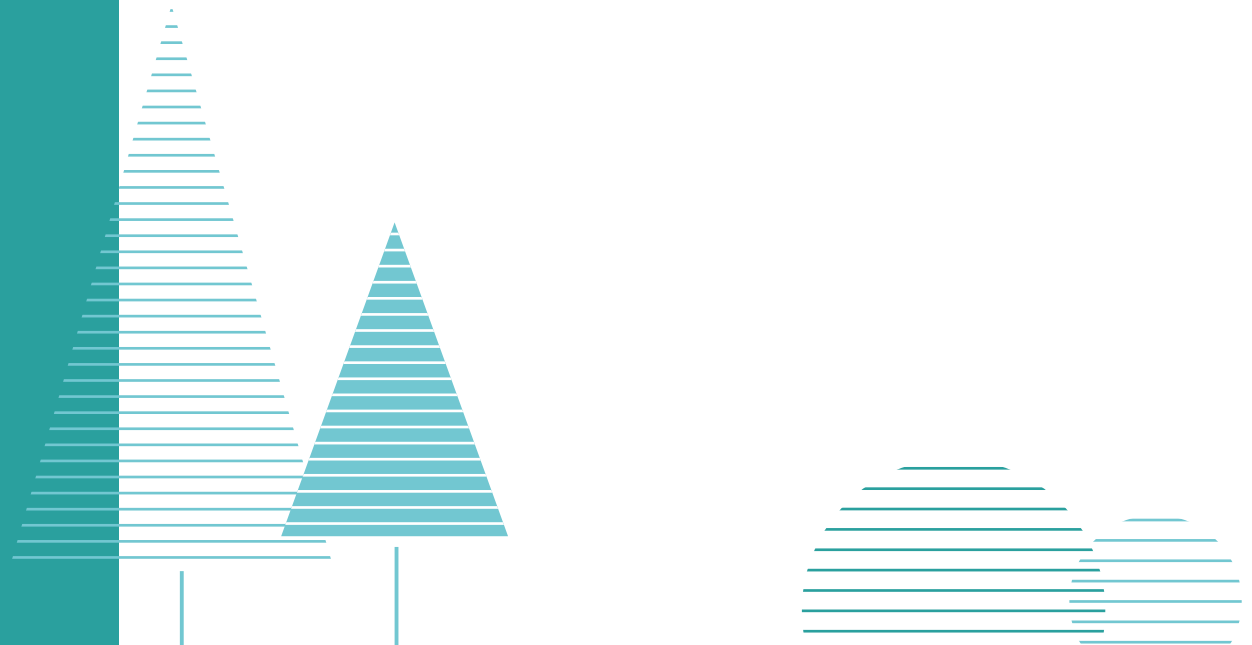


CONTINUOUS PROCESS

Out of commitment and conviction

Grenzebach contributes to a more sustainable and fairer world by respecting human rights, fostering fair working conditions, minimizing environmental impact, and actively fighting corruption.

Compliance with the standards is not a static promise but a continuous process. The Group reviews its performance regularly and reports on it transparently. Grenzebach strives to use this continuous self-assessment and improvement to identify best practices and potential for improvement and further optimize its impact on the world.



IN DIALOG WITH SOCIETY

Representing interests, meeting expectations

We can only create a sustainable future for current and future generations by working together. This is why Grenzebach is in regular contact with various social groups. Some of these have very different perspectives and expectations of the Group. The essential stakeholders of the Grenzebach Group are

EMPLOYEES

CUSTOMERS

BUSINESS PARTNERS

SUPPLIERS

INVESTORS


SHAREHOLDERS

MEDIA REPRESENTATIVES

THE PUBLIC

ENVIRONMENT

Our stakeholders' perspectives inspire us to develop new solutions, optimize our processes, challenge ourselves, and continuously improve our products and services.



“FOR THE GRENZEBACH GROUP, INTERCHANGE WITH ITS STAKEHOLDERS IS IMPORTANT BECAUSE THIS IS THE BASIS FOR INNOVATION, COLLABORATION, AND CONTINUOUS IMPROVEMENT. THEREFORE, THE GROUP MAINTAINS AN OPEN DIALOG ON A LEVEL PLAYING FIELD.”

Andrea Steigerwald,
Head of Corporate Marketing & Communications Grenzebach Group

The active interchange of ideas and feedback enables us to ensure that we meet the needs and expectations of our stakeholders. Grenzebach builds trust through dialog, strengthens relationships, and promotes a culture of shared success. The stakeholders' voices influence The Group's strategic decisions and help it to have a positive impact on its own corporate culture, the future, and its (in)direct environment.

EMPLOYEES ASK, WE ANSWER

In 2023 Grenzebach launched the "Ask our CEO" initiative, which aims to give our employees the opportunity to anonymously ask Dr. Steven Althaus questions.

Our employees submitted 59 questions within two weeks on various areas such as human resources, company locations, NEXT, internal guidelines, financial results, sustainability, and our business units and business fields. From October 2023 to April 2024, the questions were answered via video and text via our internal information channel.

This initiative demonstrates our commitment to an open communication culture, and we plan to continue this on a regular basis to enable a continuous interchange with our employees and address their concerns. We also encourage our employees to approach management anytime.

LOCAL AND INTERNATIONAL COOPERATION

Grenzebach is involved in numerous regional and international organizations and initiatives and maintains close partnerships with research institutions, both within and beyond customer projects. Our commitment is part of our strategic orientation, which aims at sustainable development, cooperative exchange, and innovation promotion.

For example, Grenzebach is a member of the German Machinery and Equipment Manufacturers Association (VDMA), the Georgia Association for Manufacturing (GAM), the Additive Manufacturer Green Trade Association (AMGTA), and many others.

Grenzebach is also active in various work groups. The company supported the development of the VDA 5050 interface, for example, which was developed in cooperation between the German Association of the Automotive Industry and the VDMA with the support of the Institute of Material Handling and Logistics at the Karlsruhe Institute of Technology (KIT IFL).

The Group also regularly collaborates with research institutes such as CUTEC at the Clausthal University of Technology, Fraunhofer UMSICHT, the University of Augsburg, and other institutions. For example, in projects with CUTEC and UMSICHT the aim is to develop efficient recycling processes – one for phosphorus and one for asphalt.

Grenzebach also rethinks training from the start: As an educational institution, the company maintains partnerships with many schools and universities in the regions of its locations. We honor outstanding academic achievements in STEM (Science, technology, engineering, and mathematics) by awarding various prizes. We organize regular excursions to Grenzebach and our customers to promote open exchange.



„WE FIRMLY BELIEVE THAT AN OPEN AND TRANSPARENT DIALOG IS THE KEY TO A SUSTAINABLE FUTURE, AND WE LOOK FORWARD TO WALKING THIS PATH WITH OUR STAKEHOLDERS.“

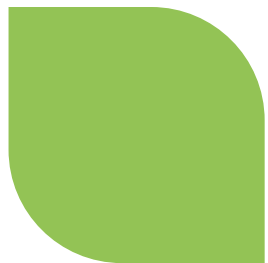
Robert Brier
CEO Grenzebach BSH GmbH

KEY TO SUCCESS

Impact on the economy, environment, and society

The Grenzebach Group provides solutions and services that contribute to economic growth, technological progress, and improved working conditions for its customers and suppliers. This is why the company considers itself a journey partner for its customers and a responsible employer for its employees and their families.

The Group takes its responsibility seriously and is also aware of any negative effects its actions may have on the economy, the environment, society, as well as the company and its employees.





KEY SUSTAINABILITY ISSUES

Grenzebach has, therefore, identified key sustainability issues that cover social, ecological, and economic aspects and are relevant to its industries, stakeholders, and the Group itself. In this process, the demands placed on the Group, both internally and externally, were considered.

From 2024 onwards, Grenzebach will regularly and systematically conduct a double materiality analysis to identify and clarify crucial sustainability issues. This will consider and incorporate the requirements of the ESRS standards. The key sustainability issues will include several key areas that can be assigned to the three pillars of sustainability and have different impact characteristics.

NEXT SUSTAINABILITY STRATEGY

Balancing happiness and responsibility

Innovation, sustainability, and dialog with its stakeholders have gone hand in hand for the Grenzebach Group for over 60 years. Thus, Grenzebach's economic success is in harmony with sustainability and corporate price, quality, and innovation targets.

We responsibly use our economic opportunities for action in accordance with the goals of our customers, society, and available resources. We achieve this environmental, market, and customer orientation through highly qualified and motivated employees and a deep understanding of the latest technologies.

A strategy today that looks forward to tomorrow

Many opportunities arise in times of fundamental change, but they also require excellent cooperation, the highest quality standards, and clear processes and strategies.

Grenzebach has set its course for the world of tomorrow in writing in the NEXT sustainability strategy.

Our vision – clear and encouraging

The Grenzebach Group is an international automation specialist. As a reliable journey partner for our customers, our solutions and services promote sustainable and resource-conserving innovations as well as environmentally friendly and responsible change – both internally and externally.

Our mission – thinking ahead

We use state-of-the-art technologies and artificial intelligence (AI) and continuously improve our processes, solutions and services to minimize the environmental impact of our customers and ourselves. We are committed to meeting the needs of our customers and their end consumers' needs and positively contributing to the global community, climate protection, and the environment through ethical behavior and sustainable business practices. We are shaping a sustainable world together, in which technological progress and ecological and social responsibility are in harmony.

Our path – unambiguous and binding

From promoting the circular economy to switching to renewable energy and reducing our CO2 emissions, our path to the future follows a clear strategy, robust processes, and binding targets that influence our own footprint as well as the footprint of our customers and other stakeholders.

STRATEGY

VISION

MISSION

WAY

„OUR SUSTAINABILITY STRATEGY PERFECTLY REFLECTS OUR ENTHUSIASM FOR INNOVATION AND THE FUTURE. IT IS NO COINCIDENCE THAT IT FITS SEAMLESSLY INTO THE OVERALL STRATEGY OF THE GRENZEBACH GROUP: WE THINK AHEAD AND ACT OUT OF PASSION AND DEEPEST CONVICTION.“

Dominik Schwarz
Manager Sustainability Grenzebach Group

INTEGRATED SUSTAINABILITY IN EVERYDAY LIFE

We care – 24/7/365

The Group is implementing group-wide measures to continuously improve its sustainability performance, for example in energy and environmental management, and to achieve the sustainability targets set out in its strategy. These measures mirror our understanding of values and are accompanied by a continuous improvement process.

Management systems with added value

All measures, processes, and strategies in sustainability management are indispensable elements of the Grenzebach Group's corporate strategy. We use ISO standards as a key tool in our efforts to achieve the highest sustainability standards and continuously optimize our processes. These standards are part of our sustainability strategy and enable us to ensure that our goals are uniform across all locations. Our integrated management system (IMS) consists of

- » Quality management system as per DIN EN ISO 9001
- » Environmental management system as per DIN EN ISO 14001
- » Energy management system as per DIN EN ISO 50001
- » Work protection management system as per DIN EN ISO 45001
- » Information security management system, based on ISO IEC 27001

In implementing these standards, we are creating an independent and transparent platform to certify and evaluate our progress. We invite all interested stakeholders to find further information on our ISO systems, measures, and their significance for our sustainability goals in the annex.

GRENZEBACH'S ENERGY AND ENVIRONMENTAL PROGRAM

In 2022, the Grenzebach Group initiated the group-wide Grenzebach Energy and Environmental Program (GEEP). The objective is to translate key sustainability issues, such as those from the ISO standards, into concrete measures, making them transparent, measurable, and comparable.

We implemented the program in 2023 at the following locations (primarily production locations)

- » Grenzebach Maschinenbau GmbH, Hamlar, Germany
- » Grenzebach BSH GmbH, Bad Hersfeld, Germany
- » Grenzebach Corporation, Newnan, Georgia, USA
- » Grenzebach Romania, Iași, Romania
- » Grenzebach Machinery, Jiashan, China
- » inos Automationssoftware GmbH, Stuttgart, Germany

Our energy and environmental program combines all improvement ideas and measures at one central location. This allows those responsible for our Global Quality Management to act in a more targeted manner and implement initiatives more quickly.

Individual measures are evaluated based on internal and external targets defined by the European Financial Reporting Advisory Group (EFRAG) for the Corporate Sustainability Reporting Directive (CSRD). The most effective measures are determined in combination with our internal evaluation system, the Grenzebach Sustainability Index (GSI).

The GSI categories are subdivided into

- » Ecological cluster: carbon neutrality, circular economy, and biodiversity; resilience/self-sufficiency of the organization
- » Economic cluster: transparency/awareness, cost savings

Cost savings are included in the assessment but play a secondary role for us in terms of our sustainability goals. Ecological aspects are our priority. However, some environmental measures also bring economic benefits in the long term.

After evaluating the approaches, Global Quality Management analyzes the selected measures regarding their feasibility and the resources required. In 2023, the evaluation and decision-making process resulted in 62 (2022: 42) measures for the Grenzebach Group. 57 % (2022: 32 %) were successfully implemented in the reporting year.



„SUSTAINABILITY IS A CORE VALUE THAT EVERY EMPLOYEE
FOLLOWS IN THEIR DAY-TO-DAY WORK.“

Frank Wenger
Global Quality Manager Grenzebach Group



We say YES – responsibility and sustainability take many forms

The Grenzebach Group also uses internal binding declarations to ensure that The Group and its employees and suppliers act responsibly and ethically and follow the rules they have set themselves. The declarations are based on fundamental ethical values and are intended to protect the understanding of our beGrenzebach values as well as economic values. As a result, the Group creates commitment and security – for its customers, employees, and itself.

Code of Conduct

The Code of Conduct includes binding values, beliefs, guidelines, and measures that serve as pointers and are actively practiced in our group of companies. Our set principles and values are binding for our employees across all sites and business units worldwide. The Grenzebach Group expects suppliers and business partners to respect the corporate philosophy, comply with the standards and guidelines of the Code, demonstrate zero tolerance for violations, and work to ensure compliance by their business partners as well as along the supply chain.

Declaration of Principles

The Grenzebach Group declares itself to be committed to ecologically and socially responsible corporate management by this declaration of principles. The values, views, guidelines, and measures set out therein are actively practiced within the Group and are binding to all employees and business units worldwide. The Group is guided by internationally applicable regulations and the principles of the UN Global Compact (focus on SDG 4, 8, 12, and 13). Grenzebach expects the same conduct from all suppliers, whether indirectly or directly. Grenzebach communicates expectations for human rights and environmentally compatible behavior through contracts, training, and audits. The Grenzebach Group exercises due diligence.



Teamwork

Thinking and acting sustainably applies to all levels. The Grenzebach Group has defined specific organizational tasks and responsibilities to comply with the measures and achieve the sustainability goals.



ALL ASPECTS OF RESPONSIBILITY

Ecological. Social. Economical.

Sustainability is a running process with many aspects, from the foresightful use of resources to the use of environmentally friendly materials and products to fostering a safe and healthy workplace.

In practice this means that Grenzebach

- » efficiently uses resources,
- » uses energy sensibly,
- » reduces the impact on the environment around the globe,
- » actively protects the environment and climate, as well as labor,
- » and also pays attention to sustainable supply chains.

The Grenzebach Group focuses especially on the following areas of action

Sustainable management

- » Corruption prevention and avoidance
- » Creating consistent transparency
- » Reinforcing operational & strategic management

Products

- » Offering innovative and high-quality products and services
- » Improving the resource efficiency of products
- » Promoting partnerships with customers

Environment

- » Expanding efficient use of resources
- » Reducing energy consumption
- » Minimizing environmental impact

Employees

- » Promoting occupational safety
- » Strengthening product and service responsibility
- » Facilitate the basis for professional and personal success

Supply chain

- » Expanding reporting systems for compliance with laws and environmental and social standards
- » Lowering material consumption
- » Expanding knowledge

„GRENZEBACH IS ACTIVELY SHAPING A SUSTAINABLE FUTURE FOR PRESENT AND FUTURE GENERATIONS THROUGH INNOVATIVE TECHNOLOGIES AND SOLUTIONS. WE EQUIP OUR CUSTOMERS WITH THE TOOLS TO INCREASE THEIR PRODUCTIVITY AND EFFICIENCY WHILE REDUCING THEIR ENVIRONMENTAL IMPACT, LOWERING CARBON EMISSIONS, AND SUPPORTING A SUSTAINABLE CIRCULAR ECONOMY.“

Anna Kyriakidou
CEO Grenzebach Hellas



SUSTAINABLE CORPORATE MANAGEMENT BUILDS TRUST

Clear. Straightforward. On an level playing field.

Grenzebach is committed to sustainable corporate management focusing on transparency, responsibility, and long-term value creation. An effective risk management system is as much a part of our corporate management as the desire to achieve high employee satisfaction. Taking responsibility for the impact of our activities on the environment, society, and the economy creates trust, which is an essential factor in the company's success and a key building block for relationships with all stakeholders.

We do not tolerate any form of corruption

The Grenzebach Group stands for responsibility and integrity. Our employees and authorized representatives send clear signals against corruption to prevent any semblance of it. Whether they work in the industrial or commercial sector, our employees undergo regular online and/or classroom training on anti-corruption to develop a common understanding of our principles. We attach great importance to ensuring that all activities comply with German and international anti-corruption laws as well as our corporate guidelines.

We also reject any form of cooperation that could encourage corruption. Gifts, invitations, or hospitality may not exceed specified limits and must be appropriate. Strict rules on benefits are essential: they must not influence any business decisions, especially in relation to public officials. We have global anti-corruption regulations that are enforced at all our international subsidiaries.

It is crucial to separate private and business interests. Upon joining the Grenzebach Group, every employee agrees to The Group's general compliance principles. Transactions and processes are documented openly and transparently to enable traceability.

We are creating consistent transparency

The Grenzebach Group is firmly committed to the principles of fair competition, market economy, and responsible employee management. The way we deal with employees, business partners, and third parties is characterized by neutrality and respect. Because we believe in the power of

open dialog, we promote a respectful relationship with our customers, employees, suppliers, and competitors. This also includes regularly checking the integrity of new commission recipients to foster that the respective company and authorized recipients are not blacklisted.

Year	Compliance inquiries	Individual tests Persons	Companies	Results	Project protection agreements
2023	11	20	17	0	8
2022	19	30	24	1	14
2021	11	22	17	0	8
2020	26	69	75	0	11

Should a company not pass our inspection, we will not enter into a contract with the company in question, and no business relationship will be established.

In 2023, we also carried out our annual supplier audits. Regular reviews of supplier performance help us to maximize the efficiency of the supply chain, minimize risks and provide the quality of the end products. From January to December, we evaluated twelve suppliers (2022: 10). The average performance of the parties audited was 3.08 points (2022: 3.2). Despite the switch to a significantly more comprehensive questionnaire regarding ESG-relevant topics, the results are stable.

Reliability, transparent documentation and communication in customer and employee relationships not only strengthen our mutual trust, but also integrity in the market. This is why we focus on transparent pricing and clear contractual conditions so our customers know exactly what they are paying for.

Our interactions with our stakeholders follow the Grenzebach Group's Code of Conduct and are always fair and transparent. Any information we communicate is complete, factually correct, and clearly understandable. We do not make inappropriate value judgments and strive for honest, truthful statements. We believe that this is the only way to create a healthy foundation for trust and transparent cooperation.

We are reinforcing our operational and strategic management

It is vital for the competitiveness and sustainability of our globally active group of companies to strengthen our operational and strategic management. Strong management enables cohesion, agility, and consistency in the strategic direction of all locations, which promotes the trust of all stakeholders. The close integration of operational and strategic processes also enables synergy effects and optimized workflows to be exploited, resulting in cost savings and efficiency gains.

We believe that robust management enables greater flexibility and adaptability by enabling rapid responses to market changes and local needs. This means risks are better distributed and managed, while innovations can be rolled out quickly globally. Therefore, we actively promote a dialog between the international and local teams, encouraging an open exchange of ideas and perspectives that enriches decision-making at all levels.

Our global teams, such as Management, Leadership, Sales, Service, and the Technical Board, meet regularly to discuss current topics, challenges, and forecasts. This year's global sales and management meeting at the company headquarters in Hammlar, Germany, focused on topics such as locations, self-reflection and sustainability.

Such equal participation ensures that all voices are heard and helps to create an environment of trust and cooperation.

Four years ago, the OneGrenzebach project was launched to interlink operational and strategic processes further and facilitate collaboration. OneGrenzebach is thereby the strategy to equip Grenzebach locations worldwide with standardized and uniform business processes and IT systems in order to make our global cooperation even simpler, more efficient, and sustainable. The project came to a successful end in 2023 after a four-year term and seven project phases.

The new applications offer comprehensive integrated processes, provide high-quality data – which can be used as a management and control tool – and offer a future-proof process landscape.



6

SUB-PROJECTS

such as oneERP, onePLM, and more

14

NEW APPLICATIONS

such as SAP, Windchill, and more

>1.500

TRAININGS IN 2023

for key user and employees

The project did not end with the go-live. We will constantly review and implement the requirements for optimization. The first focus will be on further development in the area of controlling.

INNOVATION AS PRACTICED ECONOMIC SUSTAINABILITY

Durable. Safe. Reliable.

Customers achieve their goals in the long term with Grenzebach's high-performance technologies and are optimally prepared for future developments. Our innovative solutions help our customers' production run reliably, so that they can concentrate on the important things: their customer's wishes and market development.

We offer innovative and high-quality solutions and services.

The Grenzebach Group is known for innovation and the highest quality standards in all our solutions and services. We use state-of-the-art technologies, such as additive manufacturing processes paired with intelligent automation, to develop products that are not only efficient but also future-proof. One of our latest developments in the field of additive manufacturing is an outstanding example in which we are increasing the number of print jobs by up to 83 % in single-shift operation through automated loading, unloading, and cooling with the Exchange P 500/2 and 500/4 solutions for EOS 3D printers, while at the same time significantly reducing operating costs.

We also continuously invest in the further training of our employees to ensure that they have the latest knowledge and skills required to develop high-quality solutions.

We partner with research institutes and universities to pursue innovative approaches and quickly integrate new ideas into our services. This keeps us at the cutting edge of technology and enables us to always offer our customers the best solutions. We successfully implemented the first automated 3D printing production line for plastic parts on a large scale at the BMW Group as part of the POLYLINE research project between Grenzebach, EOS, and Dyemansion. This pioneering project not only demonstrates our commitment to innovative manufacturing technologies but also our responsibility in the area of sustainable production. By implementing this automated solution, we optimize intralogistics and process engineering, increasing efficiency and reducing material usage. As a specialist in the automation of industrial processes, we contributed our expertise in the intelligent and safe networking of manufacturing processes to the project. This includes the Exchange P500/4 solution, which is placed directly in the printer, automatically replaces the exchange frame, and cools the build jobs in the buffer stations. And the robotic cell with KLT handling and bin-picking robots for further processing and sorting of

components. In addition, the joint development of automated hardware and software interfaces suitable for industrial use in all process steps was a central component of the Grenzebach work package. This combination of innovation, quality, and customer proximity illustrate our commitment to act as a trusted journey partner in the industry.

Our solutions also enable more sustainable production processes and support manufacturing products contributing to a more sustainable world. One example of this is Grenzebach's friction stir welding. During friction stir welding, metals are stirred at their seam with a rotating tool, but unlike arc and laser beam welding processes, are not melted. The joint is heated but joined in a solid state, which makes friction stir welding the ideal welding process for joining aluminum alloys, mixed joints, and technically pure metals. The process is neither noisy nor dirty; on the contrary, it protects the environment and employees. Friction stir welding is emission-free and quieter than conventional welding processes. By stirring joined materials at the seams, exposure to dust, gases, fumes, and radiation is eliminated. In addition, no auxiliary materials such as shielding gas, powder, or welding wire are required. This means there is no need to purchase and store these operating supplies, saving the customer money. Friction stir welding also improves customer productivity by reducing the need for seam preparation and postprocessing. This results in a high, reproducible seam quality. When combined with artificial intelligence (AI), welding technology delivers all the benefits: AI supports the automated combination and evaluation of data. It reduces maintenance costs and downtimes, and scrap rates are almost zero. This is possible thanks to the machine's ability to monitor a wide range of parameters in real-time at every step of the process. Based on this data, it can determine the probability of a defect. This would allow expensive parts, such as the friction tools, to be run to their load limit and replaced before production is affected. Once set up, the system will train itself and improve with each production run.

We are continuously improving the resource efficiency of our solutions.

The Grenzebach Group is committed to continuously improving the resource efficiency of its solutions. Dryer technologies, for example, play a quality-defining role in the gypsum board or wallboard production process. The dryer is precisely designed to enable gentle and accurate dehydration of the plates. However, by design, drying is a very energy-intensive process step. Against the background of increased raw material and fuel prices, as well as the demand from customers, their end consumers, and governments to take environmental aspects into account during production, the issues of climate protection and resource efficiency have moved even more into the focus of Grenzebach's development departments. Companies are being challenged to find a healthy balance between "increasing productivity" and "acting as sustainably as possible" simultaneously. The developers have accomplished this balancing act with the Ultra-High-Efficiency dryer (UHE dryer). The new dryer cuts energy consumption by up to 30 % compared with the previous version, as the UHE dryer makes profitable use of waste heat from other processes. Also, it recovers between 45 and 50 % water evaporated and can run on renewable energy at any time, as it is also compatible with low calorific heat sources. The dryer was first designed in 2021. In November 2022, the dryer was unveiled at the world's leading trade show for the gypsum industry, Global Gypsum. It even won the prestigious Global Gypsum Innovation Award of the Year in 2023.

We also actively promote the exchange of knowledge and best practices within our company. Since 2021 employees have had the opportunity to complete mandatory annual training via an e-learning system in areas such as occupational safety, energy and the environment, compliance, the Act on Corporate Due Diligence Obligations in Supply Chains, and information and data security. Employees also have access to numerous voluntary training opportunities free of charge in the half-yearly training catalog as well as multiple individual measures (e.g., external seminars, e-learning, in-house training, training by and for employees, personal and team coaching) and development programs (e.g., onboarding program for new managers). The local QM-representatives regularly inspect the properties for safety, order, and cleanliness and record the results of these inspections and the resulting measures for continuous improvement in QUENTIC. The employees at the Grenzebach locations are involved in continuous improvement process. QUENTIC is a modular, cloud-based software that we use to document, evaluate, and control our processes in occupational safety, environmental protection, quality, and sustainability management, as well as in the areas of environment, social affairs, and governance.

We are promoting partnership and cooperation with our customers.

The Grenzebach Group considers working in partnership with our customers to be a key to mutual success.

We emphasize working closely with our customers to understand their specific needs and offer customized solutions. An impressive example is a collaborative customer project in which we realized one of the world's most extensive and modern production facilities for flexible wood fiber insulation boards within around twelve months. This state-of-the-art production line features the highest production capacity currently available on the market, with a possible output of up to 10 tons per hour. The close exchange with the customer has enabled us to create outstanding synergies for the company. Softwood chips, which the customer obtains from its sawmill as a by-product of wood processing, are the main raw material for producing wood fiber insulation materials. Not only does this promote the conservation of resources, it also contributes to the sustainability of the entire production process. The quick completion of this system was only possible thanks to the trusting dialog and close coordination between our teams, which underlines our philosophy of customer-oriented cooperation.

In addition, we rely on close cooperation throughout the entire course of the project - from the initial concept to implementation and follow-up support. We fully integrated an intralogistics project for an office furniture manufacturer from the conceptual design to the implementation phase to precisely record its specific requirements and jointly develop the perfect solution. Our customer was looking for an individual, flexible, customizable system that they could in large part control themselves. Grenzebach trained the customer's employees comprehensively to adapt the intralogistics system themselves and add automated guided vehicles (AGVs). The system is designed to expand with future requirements without immediately reaching its limits. The AGVs currently move around 160 km per week, transporting around 1,000 goods carriers.

We also invest in regular web seminars and information material for our customers to inform them about the latest technologies and solutions and to promote exchange.

Securing ongoing production

Scalable solutions

Production capacity increase

Maintain high product quality

On-time delivery



8

WEB SEMINARS

2022/2023

2

WHITE PAPERS

2022/2023

Collaborative partnership is not just a business practice for us, but a philosophy that helps us to build long-term and successful relationships with our customers.

FOR THE ENVIRONMENT AND NATURE ON PRINCIPLE

Honest. Extensive. Proactive.

Inventiveness and the responsible use of environmentally friendly resources define Grenzebach's entrepreneurial activities. For years, we have been setting standards with economical and ecological production and automation solutions. We also are mindful of our footprint.

We rely on the efficient use of resources and a sustainable circular economy.

Protecting the environment and reducing environmental risks are essential topics for us. Treating the environment and natural resources with respect makes a sustainable contribution to the success of The Group and society. We develop processes, services, and solutions to help us act in a conservational and ecological way. We comply with national and international laws and standards for environmental and climate protection and have set ourselves the goal of further reducing the impact on our environment in all companies and business units by implementing innovative solutions and continuously improving environmental protection.

The Grenzebach Group pursues far-reaching goals to reduce carbon emissions, save resources, and promote a circular economy as part of our sustainability strategy. We aim to reduce carbon emissions by 55 % by 2030. This goal is backed up by software-supported monitoring and the prioritization of important fields of action. This will be supported using sustainable materials and the transition to renewable energies in our organization and in the supply chain (Scope 3).

Supporting our in-house GEEP initiative, TANSO has been our CO₂ management software since 2023. It supports transparently recording and systematically analyzing our emissions. This powerful solution allows us to calculate the current carbon footprint of our activities and to develop targeted measures to reduce and offset emissions. TANSO allows us to create detailed reports and monitor progress, enabling us to make informed decisions that align with our sustainability goals. This software increases our efficiency and improves our communication strategies respecting stakeholders by documenting our responsible actions and our commitment to a carbon-neutral future.

At our location in Jiashan, China, a significant conversion was carried out to reduce carbon emissions. Alongside the building envelope and the entire ventilation system, the conversion

measures also affected the parking lot. The parking lot lights were equipped with solar panels. The LED pole lights with photovoltaics generate their own electricity via an integrated solar module and store it. If dusk falls after charging the battery, the lights turn on automatically and illuminate the parking lot. Also, installing motion detectors has significantly reduced overnight lighting; this means that the lights are only activated when needed. Grenzebach also ensured that the installation had little impact on flora and fauna. The LED pole lights generate environmentally and insect-friendly light that does not affect animals and humans. Furthermore, solar panels with a 600 kVA capacity were installed on the hall roofs in 2018, and an additional capacity of 400 kVA were added in 2023.

In 2005, the first rooftop photovoltaic (PV) system was installed in Hamlar, Germany. In the following years, PV systems were installed with an annual yield of more than 620 megawatt hours (As of March 31, 2024). This can supply around 155 single-family homes per year with electricity. In addition, the Grenzebach Hamlar location saves 270 t of CO₂ each year*. In January 2023, 728 new PV modules were added to the existing Grenzebach production hall in Iași, Romania under the direction of site management. The plant has an output of 400 kW and generated around 345.91 MWh in 2023. Further PV installations will follow with the scheduled new construction measures.

We also actively promote a sustainable circular economy, with the aim of significantly increasing the circularity of our solutions by 2030. In order to achieve this goal, we are concentrating on developing and introducing products that are easier to recycle.

We place particular importance on sustainable designs. For instance, by using screws instead of welded joints and implementing modular construction methods to increase reusability. An additional example is the Grenzebach return and recycling concept in the intralogistics sector, which came into force in 2023. It enables legally compliant and sustainable disposal as well as high-quality recycling. This offered service allows Grenzebach to guide customers as a pioneer in the "disposal of automated guided vehicles" throughout the entire product life cycle and after the service life of their intralogistics system. Grenzebach organizes the return, disposal, disassembly, recycling, and, when necessary, proven destruction of the customers' vehicle systems. The return of the vehicles is nationwide. The disposal is documented. Of course, customers will receive a certificate for the disposal. More than 90 % of the AGV can be recycled, and safe battery recycling also takes place. Safety-relevant components do not reach third parties and are destroyed in a secure, documented manner.

We also develop machines and systems with a long service life to ensure that they work efficiently and are more sustainably throughout their entire life cycles. These measures result in a significant reduction in CO₂ emissions in Scope 3 and enable our customers to make cost savings so that they can reinvest in further innovation and sustainability projects.

*CO₂e value according to Strommix Germany, UBA 2021

The circular economy also plays a part in the development of new solutions. Grenzebach supports cities and municipalities in recovering the essential raw material phosphorus from sewage sludge with the Grenzebach phosphorus recycling process in accordance with the statutory regulation of Germany. The aim is to establish a sustainable circular economy for the region that preserves the residents' quality of life and contributes significantly to the overarching European law on critical raw materials. Being one of the few processes that recycle phosphorus directly from sewage sludge, it exceeds the recycling rates specified by government regulations.

The Grenzebach phosphorus recycling process is decentralized and can be implemented directly at the wastewater treatment plant. Municipalities are thereby provided with a regional solution independent of third parties. The process starts with dewatering and drying the sewage sludge. The drying process is mainly energy-efficient because it is carried out using the waste heat from the recycling process. During this process, the sewage sludge loses around three-quarters of its weight without emitting hazardous substances. The core of the recycling process is the reduction and oxidation control of the sewage sludge dry matter. The remaining dry matter is almost entirely recycled into phosphoric acid and minerals in this process – without producing

any further landfill material. The completely usable end products support the refinancing of the investment. Phosphoric acid has a vast sales market. The same applies to minerals in the construction industry.

The plant concept is adaptable to different recycling capacities and therefore also suitable for municipalities with less than 3 tons of sewage sludge per hour. In such installations, the plant requires no more space than a handball court. By eliminating chemicals from the recycling process, there are no additional costs or materials to dispose of. Thanks to the direct recovery, transporting millions of tons of sewage sludge to the mono-incineration plants is unnecessary.

Together with the municipal experts and supporting planning offices, Grenzebach creates community-specific concepts. The group also offers municipalities everything from a single source, from the plant's planning to its commissioning. Specialists support the municipalities throughout the life cycle and advise them on selling the recovered raw materials. In addition, Grenzebach provides support in the tendering process and offers customized tender texts.



We increase our energy efficiency and that of our customers.

Our goal is to significantly increase energy efficiency within the Grenzebach Group. This will be achieved through comprehensive consumption analyses in all areas of the company, which will provide us with valuable insights into optimization potential. We also invest in modern, highly energy-efficient construction measures, machines, and spare parts that minimize our energy requirements.

The facade of the administration building was insulated to improve the energy efficiency of the company's structures in Jiashan so that energy would no longer escape unnecessarily. The ventilation system was also renewed. This system is significantly more energy-efficient than its predecessor and provides a pleasant climate by regularly exchanging room air. All offices were also equipped with new programmable air conditioning systems of the latest generation that start-up only when needed. Similar measures were implemented at the Newnan location. In 2020, the office buildings were comprehensively refurbished for energy efficiency. Facades were insulated, and heating, air-conditioning, and sprinkler systems were converted to more efficient systems. The Newnan location installed motion sensors for lighting in offices to reduce power consumption when employees leave the room for a certain amount of time. Compared to the previous year, more than 20 % of electricity and water consumption was saved in 2021 due to the remodeling measures; a huge saving considering that in the previous year (2020) only a few employees worked in the office areas due to the pandemic. In 2021, the number of employees in the office had already increased again. This positive development was also reflected in subsequent years.

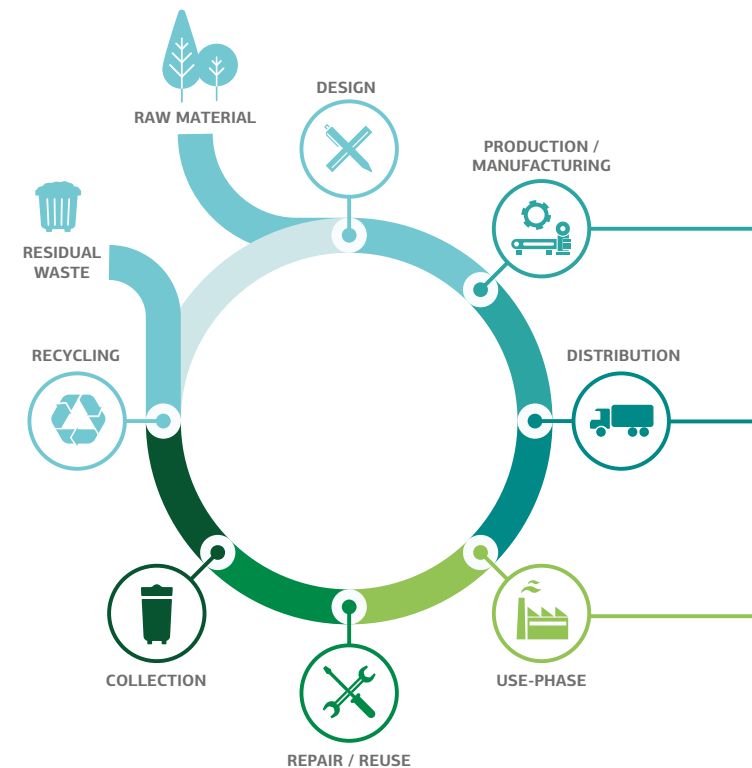
Developing our own renewable energy generation, for example, through photovoltaic systems or combined heat and power plants, is a further step towards self-sufficiency and sustainability.

We plan to be carbon neutral (Scope 1 & 2) at the Hamlar, Germany location by 2025. To reach this goal, the location is replacing its current natural gas heating system with a combined heat and power plant that runs on biogas. Biogas for the network is supplied regionally. The first talks took place in 2023. Grenzebach offers residents the opportunity to connect their households to the heating network and thus gain access to these renewable, attractive energy sources.

We are also working to improve the energy efficiency of our products. Our goal is to significantly increase energy efficiency by 2030 by pursuing innovative approaches such as "Design to Efficiency". We ensure that our products are designed to conserve resources from the development phase. Investments in modern, energy-efficient components reduce energy losses and increase our solutions' competitiveness.

One important aspect, for example, is reusing process heat, such as in our Business Unit Glass, to maximize efficiency. The innovative annealing lehr not only enables precise adjustment of the cooling capacity to the specific requirements of the production process but also integrates measures for partial heat recovery. The controllable cooling sections with optimized coolers significantly reduce energy consumption, which is not only cost-efficient but also helps to reduce emissions. Thanks to its innovative design, the roller cooling oven maximizes the efficiency of cooling processes and minimizes heat loss through optimized insulation. The modular design also reduces the amount of material used and optimizes packing density during shipping, further reducing the system's resource requirements during both production and transport. These technologies not only have the potential to reduce operating costs but also promote sustainability in glass production by reducing the production's environmental footprint. The possibility of making the cooling capacity more flexible depending on requirements also

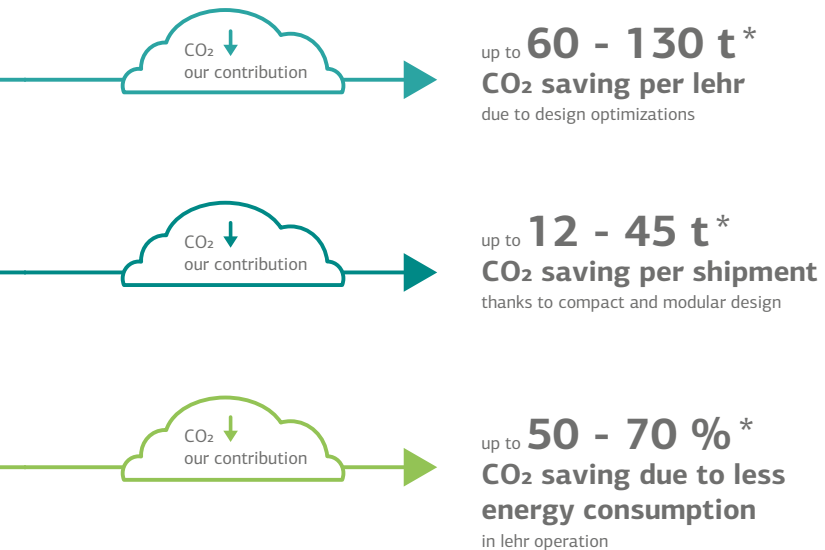
opens up new perspectives for our customers to achieve the ideal glass tempering across different production scenarios. This technology, combined with improved process control and the ability to simulate, not only offers further opportunities to enhance product quality, but also, together with our customers, enables us meet the growing demands for energy efficiency and environmental awareness in the industry. This is how we actively contribute to promoting sustainable practices in glass production and supporting saving resources in the production process.



The basic energy supply is another important aspect of increasing energy efficiency, saving costs, and leaving a positive impression that may open up new sales markets for our customers. The electric melting furnace developed in 2023 for mineral wool production and other sectors, such as the steel industry, is particularly noteworthy. High temperatures are required for the production of mineral wool. The electric melting furnace can be operated entirely with renewable electricity. By swapping furnaces, companies can promote the following UN sustainability goals

- 6 Resource-saving water management in production
- 7 Improving energy efficiency in the company's own buildings
- 8 Modern working conditions and no fatal accidents or fewer accidents with downtime
- 12 Waste-free production through recycling of production-related waste (target: no waste)
- 13 Reducing carbon emissions (target: no carbon)

Electrifying the melting furnace also makes replacing or purchasing of the furnace subsidizable for companies, as the use of fossil fuels can be avoided entirely (see public funding programs).



*Depending on lehr configuration

We minimize our, our customers', and our suppliers' impact on the environment.

Throughout our entire value chain, we assess and implement improvements to the sustainability of our supply chains to make each individual product and the group itself more climate-friendly. From our manufacturing and resource procurement, including the prevention and use of conflict materials, transport routes, and waste disposal to renewable power supply, building technology, and even more areas, the Grenzebach Group has already taken efficient and environmentally friendly measures.

In the course of this, we initially drew up an individual climate strategy for the Grenzebach Group in September 2021. As a first step, the carbon footprint for the German production and development locations in Bad Hersfeld and Hamlar were determined according to GHG to reveal this strategy's potential.

Hamlar location

Year	Scope 1 (t CO2e)	Scope 2 (t CO2e)	Scope 3 (t CO2e)	Total (t CO2e)
2020	965.46	577.32	18,092.85	19,635.63
2021	1,106.09	0.00	24,987.26	26,093.35

In 2021, we were able to fully offset Scope 2 by increasing PV capacity and switching to eco-power. This not only leads to a better carbon footprint for Grenzebach but also to a better carbon footprint for the Group's customers. After all, the Grenzebach Group also wants to contribute to a sustainable supply chain for its customers.

Bad Hersfeld location

Year	Scope 1 (t CO2e)	Scope 2 (t CO2e)	Scope 3 (t CO2e)	Total (t CO2e)
2020	215.98	217.85	24,550.99	24,984.81
2021	187.42	0.00	12,993.74	13,181.16

The total emissions were almost halved in 2021 because, compared to 2020, the emissions in Scope 3 could be recorded and classified more precisely.

Following creating a carbon footprint for each location, we decided to switch to a group-wide perspective using the software solution from the provider TANSO to obtain a more comprehensive and consistent picture of our environmental impact. These changes will enable us to better understand and manage our business activities' global impact. We are currently in the migration phase of this system, which is why no individual footprints have been created for 2022 and 2023. We believe this new approach will help us minimize our carbon emissions more efficiently and inform our customers and partners more transparently about our progress.

Grenzebach is also gradually expanding its electric charging infrastructure at locations around the world. This initiative was kicked off in March 2021 by the launch of the expansion at the Grenzebach Group's headquarters in Hamlar, Germany. Having started with two e-charging stations, sixteen charging points are now in use at the Hamlar site and eighteen charging points in Bad Hersfeld. The Jiashan and Newnan sites also have e-chargers, with an upward trend. Iași will also add e-charging stations once the production expansions are completed. In addition to the vehicle fleet of the Grenzebach Group, employees and customers can also use the e-charging stations for their private electric vehicles.



MINDFULNESS FOR PEOPLE AND REGION

Sustainable. Attentive. Responsible.

Each of us has the chance – and the responsibility – to contribute to society. This is especially true for companies like Grenzebach. The Group is happy to fulfill this duty. Grenzebach has supported its employees as well as social projects and institutions for years. The focus is on the regions surrounding the locations.



We promote the occupational safety of our employees.

We would like to offer our employees a place where they feel comfortable, safe, and valued. We place great value on sustainable occupational health and safety and enable fair working conditions and pay. Compensation and (social) benefits are created to meet or exceed the legal standards.

The safety and well-being of our employees is our top priority. Robots take over some dangerous, heavy, and ergonomically stressful tasks, reducing the physical strain on our employees and minimizing the risk of accidents. Automated guided vehicles provide more ergonomic workplaces by efficiently handling laborious routes and transporting heavy goods. Since 2019, we have also electrically isolated the control elements of our automated guided vehicles from the battery voltage and made them 360° personnel-safe using lidar laser scanners to provide the highest occupational health and safety and fire protection standards. We are constantly striving to further develop innovative fields and thus create new fields of employment that increase safety and promote our employees' commitment and satisfaction.

Grenzbach promotes and expects ergonomic workplaces and secure work areas at all of our locations. These enable flawless operation and the trust of our employees and customers.

QUENTIC was our choice for environmental, health, and safety management; enabling us to efficiently control and monitor all relevant processes and consumption values. This platform offers comprehensive functions for documenting and analyzing risks as well as for conducting audits and training. Thanks to QUENTIC, we can enable that our working conditions always meet the highest safety standards and comply with legal requirements. The software also promotes a culture of continuous improvement by enabling us to identify potential risks at an early stage and take preventative measures. This way, we actively contribute to preventing accidents, protecting the health of our employees, and minimizing environmental impact - all in line with our sustainability and social responsibility goals.



We strengthen product and service responsibility.

Strengthening our employees' product and service responsibility is an essential part of our sustainable corporate strategy. We believe that each and every individual is responsible not only for their tasks but also for the quality and sustainability of our products and services. We offer comprehensive training and further education programs to promote this, thus enabling our employees to develop the best solutions for our customers while meeting ecological, economic, and social standards.

We encourage our teams to contribute innovative ideas and integrate sustainable practices into their day-to-day work by promoting a greater awareness of quality and responsibility. As a result, we are not only strengthening our commitment to the success of our products and services but also actively contributing to the responsible use of resources and a positive customer experience.

We are promoting the basis for professional and personal success.

At the Grenzebach Group, a central concern of our corporate culture is creating a basis for professional and personal success. We promote sustainable health management, occupational safety, and a pleasant, inclusive work environment that values the diversity of our employees. Each person plays a crucial role in the success of our company, which is why individual, personal, and professional development is so important to us.

Equality is the main focus here: We treat all employees objectively and according to their abilities, regardless of gender, age, origin, skin color, religion, culture, or other characteristics. We do not tolerate any form of discrimination but instead rely on respectful and open interaction.

We create the optimum conditions for the satisfaction and efficiency of all employees - and thus for the joint success of The Group - through continuous training measures and the promotion of a positive working atmosphere.



MONITORING SUPPLY CHAINS – ENSURING SUCCESS

Decisive. Transparent. Binding.

Throughout our entire value chain we assess and implement improvements to the sustainability of our supply chains to make each product and the group itself more climate-friendly. From our manufacturing, resource procurement, including the prevention and use of conflict materials, transport routes, and disposal to renewable power supplies, building technology, and even more areas, the Grenzebach Group has already taken efficient and environmentally friendly measures.

We are already thinking about the future today: The guidelines have been implemented and continuously improved to be even more sustainable. We take care not to deliberately endanger the environment or human rights with our supply chains and take that responsibility. Therefore, we support resilient and sustainable supply chains and ask our suppliers to assume this responsibility.

With our risk management, we assess human rights and environmental risks in our processes. Preventive measures are determined and implemented. The risk analyses are regularly checked during the fiscal year and evaluated by the management at the end of the fiscal year.

We are expanding reporting systems to comply with laws and environmental and social standards.

We have set the goal for all suppliers to meet defined sustainability criteria by 2024. This is why promoting sustainability initiatives in the supply chain is central for the Grenzebach Group. To achieve this goal, we implement sustainable supplier management based on training and raising awareness among our partners about Grenzebach's values and future expectations regarding sustainability, such as CO2 reduction and the German Supply Chain Act (LkSG).

We actively include our suppliers in Grenzebach's product strategy to enable continuous knowledge transfer and the establishment of sustainable partnerships – an approach that leads to so-called supply chain excellence. By defining uniform standards and databases, we create transparency and promote high-quality, sustainability-oriented suppliers. This not only adds value for Grenzebach in the form of access to well-trained suppliers and innovative ideas for product development but also leads to more transparency, validated data, and incentives for further sustainability initiatives for our customers. Together with our supplier, we lay the foundation for an entire supply chain which is responsible and actively committed to ecological and social concerns.

Since 2023, we have been using the Osapiens platform for our supplier monitoring to systematically evaluate our suppliers and engage with them as part of our ongoing efforts to enable sustainable supply chains. This digital solution enables us to comprehensively analyze relevant



sustainability criteria and identify potential negative features at any time. We proactively contact the suppliers concerned in the event of any irregularities or anomalies. Through this dialog-based approach, we promote transparency and support our partners in implementing the necessary improvement measures. This is how we work together to contribute to a more sustainable supply chain and strengthen our commitment to ethical and environmentally friendly practices throughout the value chain.

We monitor and optimize our material consumption.

The Grenzebach Group is mindful of sustainable waste management and is consistently expanding it. The site-specific waste management systems are helping to save costs, avoid unnecessary waste and, as a basis for recycling, protect the environment.

We are also committed to reducing material consumption by implementing a sustainable product life cycle approach and carrying out targeted material analyses.

At the manufacturing sites laşi, Newnan, Jiashan, Bad-Hersfeld, and Hamlar, all waste streams are sorted, recorded and returned to the cycle via the disposal company. We can increase efficiency, reduce unnecessary disposal trips and save CO2 by constantly optimizing this process.

Alternative substances are used wherever possible to reduce the amount of hazardous substances used. Reducing and substituting hazardous substances is actively practiced at all production sites of the Grenzebach Group. In the framework of the occupational safety management, there is a defined process for the qualification and release of hazardous substances. Only approved substances that are managed by Global Quality in the hazardous substance register of the QUENTIC IMS software used may be procured. In manufacturing oils and greases are needed to protect metal parts from corrosion. Since 2022, the Grenzebach Group has been using a sustainable, food-safe universal oil in some cases. The natural ingredients are of medicinal quality, which eliminates any risk of being harmful to the health of employees. Since the product used consists of purely plant-based products, the agent is completely biodegradable. This universal oil removes powder and lead residues from metal parts and provides lasting protection against rust. In turn, this increases the service life of the equipment used at Grenzebach.

The Hamlar paint shop has been using the "LOFT DESTIMA" process water treatment system for years to reuse the process water. This process water treatment plant works on the principle of evaporation. The process water is initially collected in two tanks. When the water reaches a defined level, the evaporation process starts. Evaporation concentrates the residue of the rinsing water, which is then automatically emptied into a concentrate tank. Then, the condensed water is returned to the process; the concentrate is collected and recycled by a certified disposal company. The system also uses the advantages of heat recovery. This is used to operate the natural circulation of the system. Heat recovery also has a positive effect on the energy

consumption of the process water treatment plant and, ultimately, on the overall consumption of the site.

Employees at the Hamlar location were encouraged to separate plastic waste more consciously as part of a recycling project in April 2024. While the direct impact of this action on carbon emissions is minimal, the simple and quick implementation of the project will help to promote an environmentally conscious mindset among employees, laying the foundation for larger sustainability projects in the future.

We are continuously expanding our knowledge of legal security.

Continuously expanding our knowledge is key to ensuring legal security and compliance in all our business areas. We proactively invest in the training and development of our employees to foster that they are up to date with the latest legal requirements and regulations. We keep our knowledge up to date through regular workshops, internal training, and exchanges with external experts and create a comprehensive understanding of the legal framework that affects our activities. Not only does this strengthen the reliability of our processes, but also the trust of our stakeholders in our company. Our commitment to legal security is an integral part of our corporate philosophy and key to our long-term sustainability strategy.

Thinking about tomorrow

To achieve the sustainability goals, Grenzebach has developed many concrete plans and projects – and has already implemented many. This includes investing in renewable energy, implementing innovative technologies to save resources, and collaborating with research institutions to create positive change on a global level. Grenzebach has been a journey partner right from the start.

Anyone who has ever driven up the Riedberger Pass in Germany, crossed the Golden Gate Bridge in America, or the Duge Bridge in China has gained a deeper understanding of the word "journey partner". Sophisticated designs, well thought-out execution, excellent engineering skills, and at the same time, always keeping the benefit for users in mind: The builders of these roads and bridges have courageously and energetically paved the way for others to move forward in inhospitable terrain, gain new heights, and reach their destinations directly.

This "thinking about tomorrow" and having an eye for external conditions has also been internalized and perfected by the Grenzebach Group. Building on the founder's knowledge and values, as well as trusting in the skills, inventiveness, and innovative spirits of all employees, the Grenzebach Group has built its own sustainable path. This way, the company has also paved the way for customers and partners to become more sustainable and prosperous, always with the "long-term" approach.

GOALS

COURAGE

PERSEVERANCE

LONGEVITY

MEANINGFULNESS



„JOURNEY PARTNERS ARE NOT SPRINTERS BUT LONG-DISTANCE RUNNERS.“

Moritz Ückert
COO Grenzebach Group

A long-distance runner has to think ahead and needs endurance, mental strength, sound resource management, and the proper running technique in order to be successful in the end. The Grenzebach Group is also proceeding carefully, thinking ahead and planning ahead in order to meet its sustainability goals. Grenzebach sets milestones for itself and continuously monitors progress.



And after all careful considerations and plans, it's finally time to get started. Thinking must be followed by action. The stakeholders at Grenzebach can rely on this. Words are followed by deeds – the Grenzebach Group has a clear vision of the future, moves forward courageously, and remains flexible.

„WE KNOW: IF YOU ARE NOT INNOVATIVE AND CREATIVE, AND IF YOU DON'T MOVE FORWARD, THEN YOU ARE MOVING BACKWARD. THAT'S WHY WE ARE LEADING THE WAY AND THINKING AHEAD – WITH AN OPEN MIND, FOR OUR EMPLOYEES, OUR CUSTOMERS, AND ALL OTHER STAKEHOLDERS.“

John Fluker
CEO Grenzebach Corporation



Our credo for the future

The forecast for our sustainability goals 2050 shows a clear commitment to ecological responsibility within the Grenzebach Group. In 2025, we will complete a comprehensive carbon footprint for our company and develop and implement a comprehensive sustainability management system. We will also launch a pilot project for using renewable energies in our manufacturing to lay the foundation for reducing carbon emissions by 55 % by 2030. In addition to introducing recycling programs in all production facilities, the first supplier contracts will already consider sustainability criteria.

By 2040, we want to reduce material consumption and fully implement a zero-waste program in our production, in parallel with an expansion of the return and recycling program for old equipment, such as in the intralogistics sector. Our goal for 2050 is to increase energy efficiency in production and to foster that all suppliers meet the defined sustainability criteria. The recycling rate will be consequently increased by then while we continuously promote the optimization of our circular economy. These strategic goals highlight our commitment to sustainable development and our ambition to take responsibility as a pioneer in the industry and positively impact our environment and society.



CO2 summary

2025

Sustainability management system

Reduction of CO2 emissions by 55

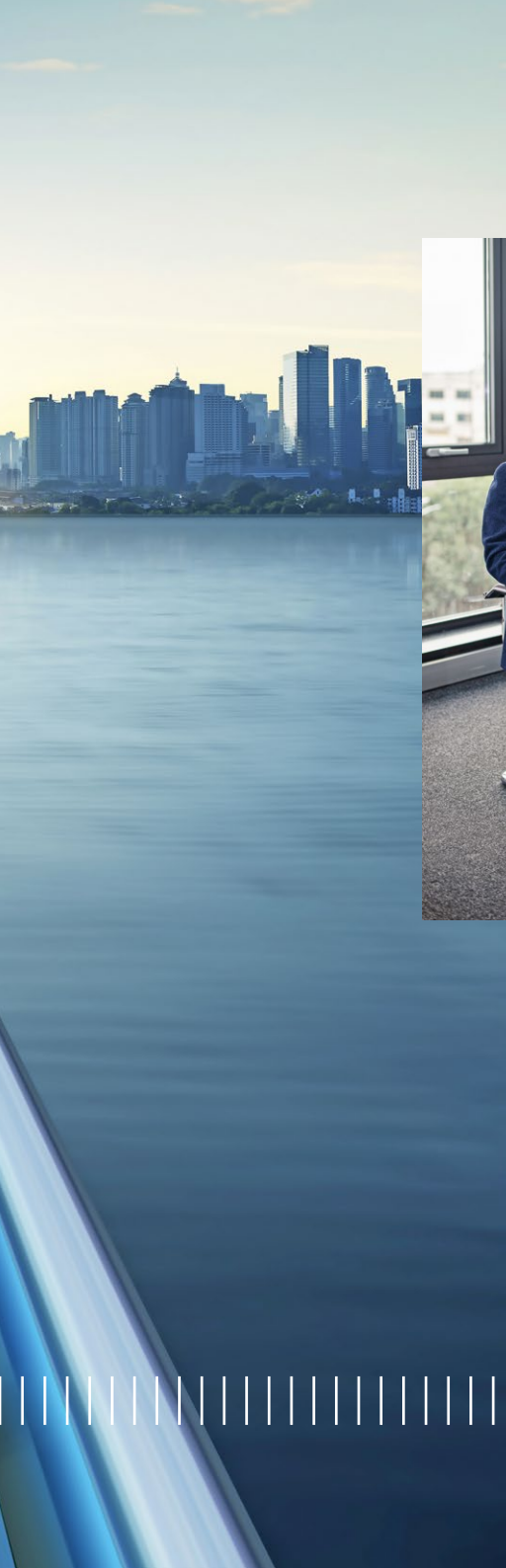
2030

Return and recycling program

Zero waste program

Recycling programs

2040



„WE ARE DETERMINED TO CONTRIBUTE TO A MORE SUSTAINABLE WORLD AND LOOK FORWARD TO TAKING OUR CUSTOMERS, PARTNERS, SUPPLIERS, AND EMPLOYEES WITH US ON THIS JOURNEY.“

James Shang
CEO Grenzebach Machinery Jiashan

Energy efficiency

Recycling economy

CO2 neutrality

2050



MANAGEMENT REVIEW ACCORDING TO ISO

The management review is an integral part of the certification. It records the regular, formal review by controllers to assess the effectiveness of our IMS and enable that it continues to be fitting, appropriate, and effective.

In 2023, this evaluation will be published for the first time in the Grenzebach Group's sustainability report, making the results of the management review available to all relevant stakeholders.

As part of the management review, following locations of the Grenzebach Group are audited and abbreviated as follows: GBSH = Grenzebach BSH GmbH, GH = Grenzebach Maschinenbau GmbH, GIS = inos Automationssoftware GmbH, GN = Grenzebach Corporation Inc., GROM = Grenzebach Romania S.R.L.

Relevant topics as per ISO

The ISO standards for management systems contain various assessment aspects. We have selected those that we consider essential, and that will help us achieve our sustainability goals.

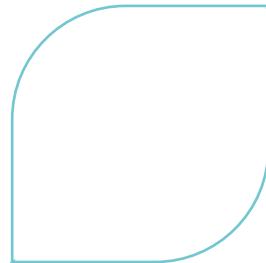
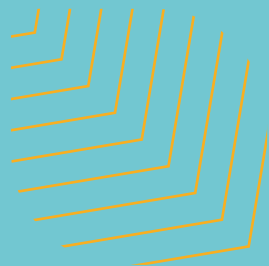
Based on this selection, the Grenzebach Group identified the following relevant issues for 2023

- » Performance of our processes
- » Performance of our external service providers (results from supplier improvement initiatives)
- » Implementation of improvement potential
- » Error costs
- » Energy (electricity and gas consumption)
- » Occupational safety (accidents)

IMS group goals

QUALITY MANAGEMENT (ISO 9001)

- » Process fulfillment rate for re-certification from 2023 to the end of the next certification period in 2025 averages $\geq 85\%$
- » Decrease in percentage of error costs to less than 1.3 % of operating performance



SUSTAINABILITY

- » Increasing the measurability of carbon emissions across at least three production locations by 2025 Planning decarbonization software TANSO
- » Preparation of ESG stakeholder report for the Grenzebach Group by 12/2024

ENERGY (ISO 50001)

- » Reducing the consumption of one of the top 3 Significant Energy Users (SEU) by 3 % Jump-off Point (JOP) in 2022 → location-based
- » Increasing the measurability of monthly consumption of all SEUs in relation to total consumption JOP 2022 through monthly tracking with EFFICIO (Software for Energy and Environmental Management) → location-based

ENVIRONMENT (ISO 14001)

- » Improving a significant environmental aspect by 1 % vs. JOP 2022 → location-based
- » At least one Grenzebach system audit of one or more environmentally relevant service providers

OCCUPATIONAL SAFETY (ISO 45001)

- » Occupational safety of external companies: reducing the mean value of the detected deviations to less than one incident per use of the external companies
- » At least 80 % of the occupational safety incidents recorded in the system QUENTIC must undergo a root cause analysis, and at least one remedial action of these analyzed events must be defined

Measures

Based on the 2022 management review, concrete measures for continuous improvement for the following year are derived

1. Implementing the new ESG assessment form for suppliers
2. Implementing Grenzebach supply chain due diligence (GSDD) activities in response to the LkSG
3. Renewing quality and process audit forms
4. Improving data collection to satisfy stakeholders
5. Conducting follow-up meetings for corrective actions
6. Careful follow-up of corrective actions from the GEEP initiative
7. Completion of the management review 2023 in the course of 2024
8. Developing KPIs for completing audits and corrective actions

In the reporting year, three of these identified areas for improvement were successfully implemented, two are still being implemented, and three are still open.

Achievement of measures and goals

Regarding the IMS group goals, we present concrete measures and the achievement of selected goals below.

QUALITY MANAGEMENT (ISO 9001)

INCREASING PROCESS FULFILLMENT FROM 80 % TO ≥ 85 %

The degree of process fulfillment indicates the extent to which a certain process or capacity is used within the Grenzebach Group, helping us to evaluate the efficiency and effectiveness of our processes.

Year	Locations					Goal
	GBSH	GH	GIS	GN	GROM	
2019	+7	+2	+6.6	+7.9	-	80
2020	+3.4	-20.4	-8.2	+6.8	-	85
2021	+4.7	+0.5	-3.0	+5.9	-	85
2022	+5	-2.0	+2	+3.2	-19.4	85
TI(o)	→	↓	↑	→	-	
2023	+4.6	-7.8	-	+5	-	85
TI(n)	→	↓	-	→	-	

Explanation: The values indicate the percentage deviation from the target value. When the deviation is positive, the figures are displayed in green; when the deviation is negative, in red, and neutral when there is no deviation. The arrows show the trend of the average performance in relation to the target valid for the audit cycle. TI means target indicator (o = old, n = new). If most arrows indicate a positive trend, the target value is corrected upwards. If the target level is not reached, the target will not be revised downwards, but the process performance will continue to be improved until the target is achieved.

2023 showed a stable trend, so the target value was achieved at the GBSH and GN locations. The GH location has a higher deviation in 2023. No data was available for the GIS and GROM locations at the time of evaluation and editorial deadline.

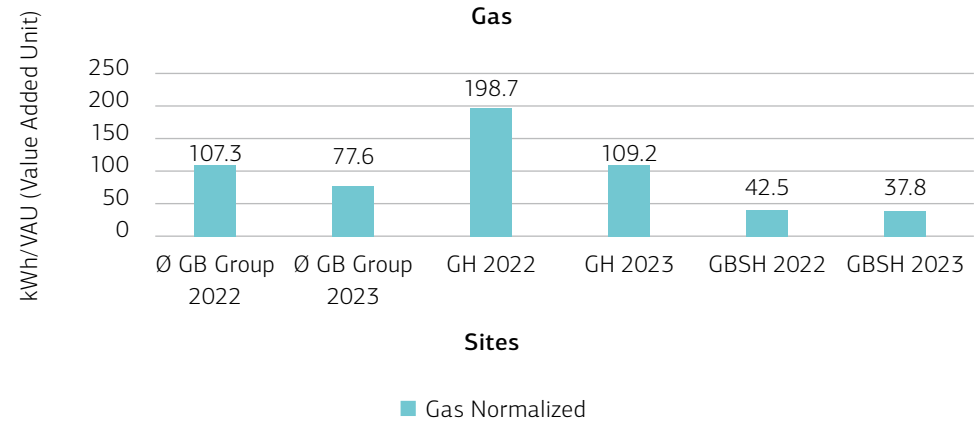
DECREASE IN PERCENTAGE OF ERROR COSTS TO < 1.3 %

Error costs are incurred by errors in a production process or service. The Grenzebach Group sorts these into internal/external error costs as well as prevention and evaluation costs. Error costs may have a significant impact on the profitability of our Group, which is why we try to minimize them through effective quality management practices continuously. To make these measurable, we put the error costs in relation to the operating performance. This results in a target value of 1.3 % for 2023 (2022: 0.7 %). In 2023, operating output was EUR 424 million (2022: EUR 343 million). Error costs amounted to EUR 6.4 million (2022: EUR 2.4 million), resulting in a ratio of 1.51 % (2022: 1.11 %). We plan to further reduce overall error costs through our Operational Excellence Initiative.

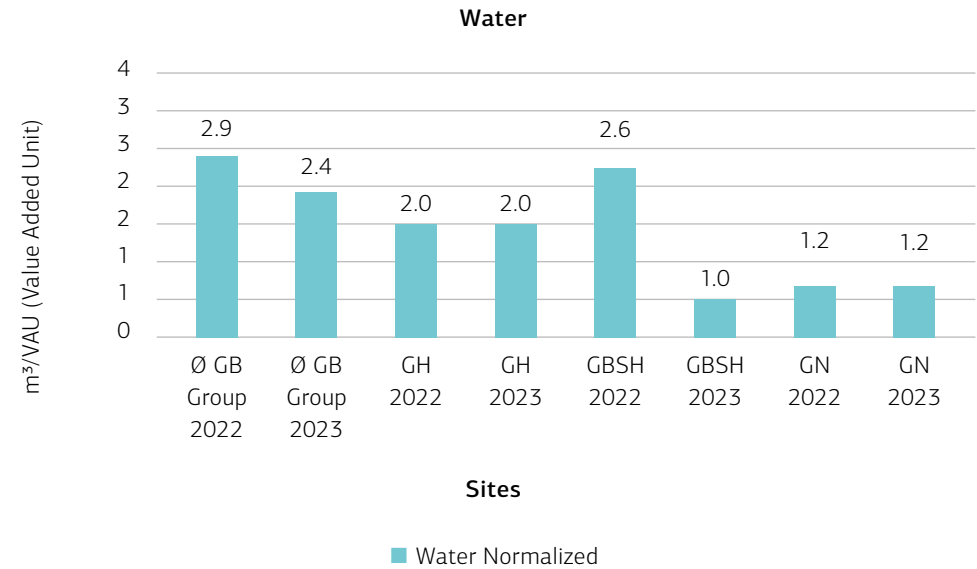
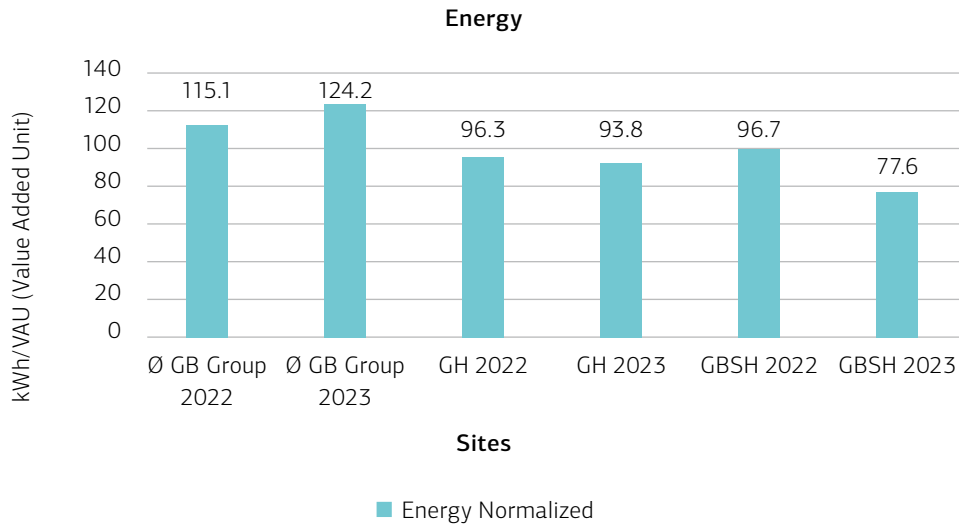
ENERGY (ISO 50001)

REDUCING ENERGY CONSUMPTION OF ONE OF THE TOP 3 SEÚS BY 3 %

One of the top energy consumers at the Hamlar location is the paint shop. The coating process was changed at the end of 2022, which resulted in a reduction in the drying temperature from 65 °C to 40 °C. The dryer is fueled with gas. This change had a significant impact on gas consumption. It was reduced by over 80 % from 2022 to 2023.



Explanation: The figure shows the gas consumption in kWh, normalized by several parameters such as production hours or employee attendance (this normalization parameter is referred to as VAU [Value Added Unit]), of the Grenzebach Group in comparison to the GH and GBSH locations for the years 2022 and 2023. The standardized gas consumption of the entire Group, including the GH and GBSH locations, has fallen compared to 2022 and 2023.



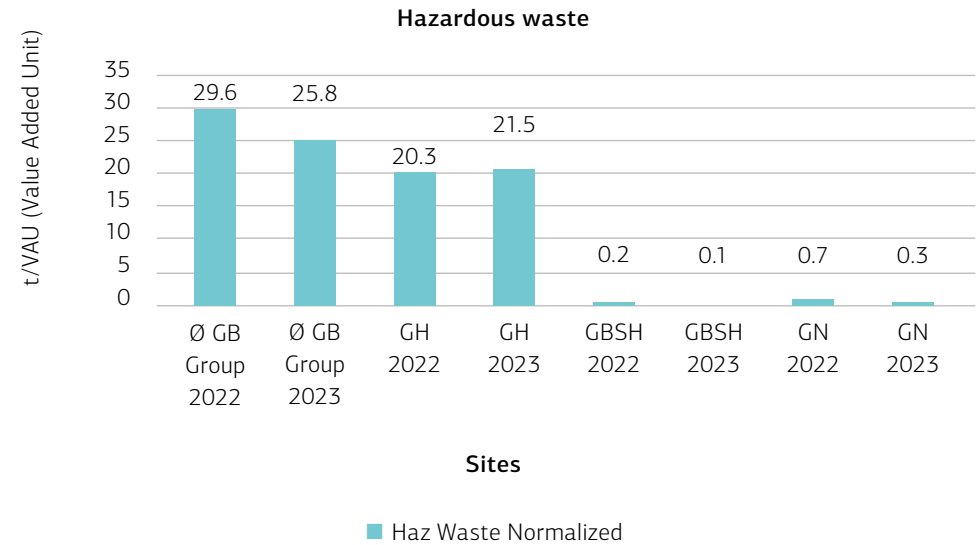
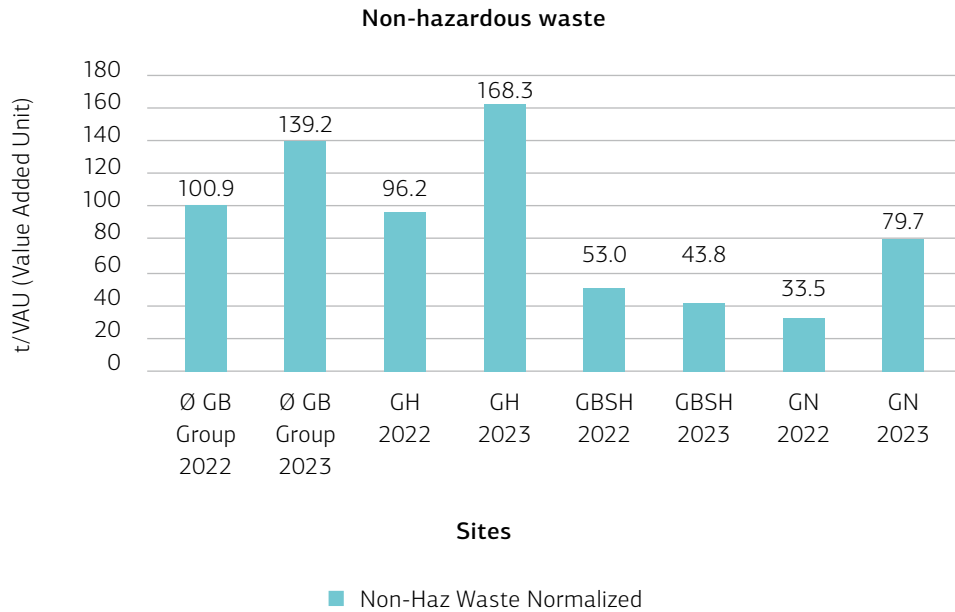
Explanation: The figure shows the energy consumption in kWh, normalized by several parameters such as production hours or employee attendance (this normalization parameter is referred to as VAU [Value Added Unit]), of the Grenzebach Group in comparison to the GH and GBSH locations for the years 2022 and 2023. Standardized energy consumption increased group-wide from 2022 to 2023, and at the GH and GBSH locations, standardized electricity consumption fell from 2022 to 2023.

Explanation: The figure shows the water consumption in m³, normalized by several parameters such as production hours or employee attendance (this normalization parameter is referred to as VAU [Value Added Unit]), of the Grenzebach Group in comparison to the GH, GBSH and GN locations for the years 2022 and 2023. The standardized water consumption of the entire Group, including the GBSH location, has fallen compared to 2022 and 2023. The water consumption of GH and GN has remained stable.

ENVIRONMENT (ISO 14001)

IMPROVING A SIGNIFICANT ENVIRONMENTAL ASPECT BY 1 % VS. JOP 2022 → LOCATION-BASED

Changes in the paint shop in Hamplar have also reduced the ratio of volatile organic compounds (VOCs) by around 2.25 %.



Explanation: The figure shows the amount of non-hazardous waste in tons (t), normalized by several parameters such as production hours or employee attendance (this normalization parameter is referred to as VAU [Value Added Unit]), of the Grenzebach Group in comparison to the GH, GBSH and GN locations for the years 2022 and 2023. The standardized non-hazardous waste of the entire Group, including the GH, GBSH and GN locations, has increased compared to 2022 and 2023.

Explanation: The figure shows the amount of hazardous waste in tons (t), normalized by several parameters such as production hours or employee attendance (this normalization parameter is referred to as VAU [Value Added Unit]), of the Grenzebach Group in comparison to the GH, GBSH and GN locations for the years 2022 and 2023. The standardized hazardous waste of the entire Group has decreased. At the GH and GBSH locations, the amount has increased, while in GN the amount of hazardous waste has remained stable.

OCCUPATIONAL SAFETY (ISO 45001)

AT LEAST 80 % OF THE OCCUPATIONAL SAFETY INCIDENTS RECORDED IN THE SYSTEM QUENTIC MUST UNDERGO A ROOT CAUSE ANALYSIS, AND AT LEAST ONE REMEDIAL ACTION OF THESE ANALYZED EVENTS MUST BE DEFINED

The Grenzebach Group records accident and illness rates. The survey generally helps to create a safer working environment and promote the health and well-being of employees. We can identify potential risks and take targeted measures to minimize them.

	GBSH (310)			GH (650)			GIS (30)			GROM (300)			GN (80)	
	Minor Injury	Major Injury	CAPA	Minor Injury	Major Injury	CAPA	Minor Injury	Major Injury	CAPA	Minor Injury	Major Injury	CAPA	Minor Injury	Major Injury
2019	12	2		52	13		1	0					2	0
2020	5	1		32	4		1	1					2	0
2021	8	2		57	6		1	0					2	1
2022	5	0	4	57	8	49	0	0	0	0	0	0	1	1
2023	5	3		-	-		0	0		2	-		-	-

Explanation: Average of recorded injuries with a root cause analysis and CAPA ≥80 % (location-based). The arrows show the performance trend compared to the previous year (JOP).

No data was collected for the GH and GN locations in 2023.

To conduct a root cause analysis, we also record other values, such as the days of absence or the use of our company doctors. Based on this, the Grenzebach Group is implementing remedial measures to increase occupational safety.

In 2023, for example, three occupational accidents occurred at the Bad Hersfeld location, and these needed to be reported. A root cause analysis was conducted for all accidents. A measure was determined for an accident, and a remedial measure was completed. In addition, five accidents at work occurred which were not needed to be reported, for each of which a root cause analysis was also conducted.

SPECIAL MEASURE

SUPPLIER AUDITS

The quality and reliability of our suppliers are crucial to the success of our products and services. This is why we conduct regular supplier audits to continuously measure supplier quality and monitor the performance of our external partners. Our approach is comprehensive: We verify the degree of achievement through precise incoming goods inspections and foster that all materials supplied meet our high standards.

If deviations or potential for improvement are identified, we take a proactive approach. This means that we not only analyze data, but also have conversations on-site to develop solutions together. Our audits are not just reactive, but also preventive: We rely on continuous monitoring of suppliers based on random checks or situational necessities. If a supplier stands out due to poor quality, we systematically document this in complaint reports and initiate targeted measures. These so-called quality management messages are tracked via SAP.

We additionally respect the requirements of the German Supply Chain Act when conducting our audits. An essential part of our audit system is checking environmental, social, and governance (ESG) aspects. This is done through targeted questionnaires and on-site visits, during which we evaluate both process and quality aspects. This way, we enable that our supply chain is not only efficient but also sustainable and responsible.

With this holistic approach, we underline our commitment to sustainability and quality, which are core components of our long-term corporate strategy.

Future measures

As part of our management discussions, we analyze the measures that have been introduced and how their effectiveness is being reviewed. Following this, we conduct audits to identify significant deviations or potential for operational improvement. The ideas we obtain from this will flow directly into future projects as part of our continuous improvement process.

Communication

We value a good information and communication policy equally. An open and transparent information flow thus creates the prerequisites for trust and high motivation.

Let us create sustainability together. You can find further information on our IMS and the measures taken on our website (www.grenzebach.com/nachhaltigkeit). If you have any additional questions, please get in touch with our Global Quality Team (info@grenzebach.com) led by Frank Wenger, Global Quality Manager Grenzebach Group.



KEY DATA FOR THE SUSTAINABILITY REPORT 2023

Format and cycle

The Grenzebach Group's sustainability report 2023 is published online. Its contents are available for download as a complete document in PDF format at www.grenzebach.com. The sustainability report is published in a fully revised version every year.

Sustainability check

We are currently not subject to auditing but voluntarily undergo external audits for standards such as ISO, TISAX, and, since 2023, the Ludwig Erhard Prize Initiative (ILEP) and other frameworks. In July 2024, ILEP granted the Grenzebach Group's sustainability efforts the "Recognised for Sustainability, Ranking EXCELLENCE" award. You can view our current certifications [here](#).

Report content

The 2023 sustainability report focuses on the key sustainability topics and the strategic direction.

The reporting period comprises the entire 2023 financial year (January 1 to December 31, 2023). The editorial deadline for the report was November 30, 2024. The content was compiled to the best of our knowledge and belief at the time of printing.

The publication's target groups are customers, suppliers and business partners, employees, scientific institutions, media representatives and other interested stakeholders.

ESG Report for auditors

In addition to this sustainability report for stakeholders, the Grenzebach Group prepares the official sustainability report in accordance with legal requirements. You can request this report from Q2/2026 at the following address (sustainability@grenzebach.com).

MASTHEAD AND CONTACT

Publisher

Grenzebach Gruppe
Grenzebach Maschinenbau GmbH
Albanusstraße 1
86663 Asbach-Bäumenheim, Hammlar
www.grenzebach.com

Contact

Ralf Jäger
SVP Operation & Sustainability Grenzebach Group

Dominik Schwarz
Manager Sustainability Grenzebach Group

Albanusstraße 1
86663 Asbach-Bäumenheim, Hammlar
Phone +49 906 982 2000
E-Mail sustainability@grenzebach.com.

Statements relating to the future

The sustainability report includes statements about expected future developments. These statements are based on current estimates and are naturally subject to risks and uncertainties. The actual results may differ from the statements made here.

Grenzebach Maschinenbau GmbH

Albanusstraße 1

86663 Asbach-Bäumenheim, Hamlar

Germany

Phone +49 906 982 2000

E-Mail info@grenzebach.com

