



SUSTAINABILITY REPORT FOR 2019/2020

Global responsibility – acting reliably and with foresight

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Strategy and governance

Ecologically and economically fit for the future





Ecologically and economically fit for the future

In the following interview the four members of the KHS Executive Management Board explain the many different ways in which sustainability characterizes their company – from KHS’ corporate strategy through its use of energy and resources and packaging portfolio for customers to its HR policy.

How great a part do sustainability and climate protection play in KHS’ corporate strategy?

Kai Acker: Although as an engineering company we’re only second in line in the debate on CO₂, so to speak, this issue is constantly growing in importance for us, too. That goes without saying. On the one hand, we help our customers to score with sustainable packaging for beverages. On the other, we explore all possible ways and means of cutting emissions and saving on resources in the course of our own value creation process.

Which flagship projects does KHS have to show in this context?

Kai Acker: Our direct contribution within the scope of operational environmental protection lies in the sum of lots of small steps rather than in spectacular showcase projects. For many years we’ve been

consistently reducing our consumption of energy and resources with the help of our modernization concepts and we recycle wherever possible. We’ll continue our efforts in this respect. As a global company we’ll also place these issues on a stronger international footing in the future, such as in Brazil and the USA.

Dr. Johannes T. Grobe: In India, for instance, we’re already running extensive sustainability programs. These include countless initiatives that specifically rely on green energy above and beyond the issues of recycling, conserving energy and the circular economy, and thus help to protect the climate.

Kai Acker: We make an indirect but greater contribution with the innovative [container and packaging solutions](#) we’ve developed and that customers produce on our machines. Take the [Nature MultiPack](#), for example, that doesn’t need any shrink film, or Plasmax, which is currently the only [recyclable barrier for plastic bottles](#) that enables PET to be recycled by type. The progress we’ve made in [lightweighting](#), namely reducing the weight of and amount of material used in a PET bottle, also speaks for itself. Just think how many tens of thousands of bottles our customers produce an hour. If you then consider that we reduce the weight of each bottle by two or three grams, for example, then you can quickly work out how much PET is saved here. The impact we have here is much bigger than, for example, the effect of installing LED lights in our production shops and offices.

» We explore all possible ways and means of cutting emissions and saving on resources in the course of our own value creation process. «



Kai Acker
CEO

» If we achieve our corporate goals using as few resources as possible, this is good both for the environment and for our stakeholders. «



Martin Resch
CFO Finance, Procurement
and IT

Which concrete goals has KHS set itself also beyond 2025?

Beate Schäfer: In the Salzgitter Group we're currently discussing the possible ways in which we could take part in the Science-Based Targets initiative¹. In the steel industry, in which our group is primarily active, measures and targets exist that are designed to help reduce greenhouse gas emissions. This topic and the transparency thereof are also of increasing relevance to KHS.

What does sustainable corporate management mean in relation to KHS and to what extent is this a success factor for your company?

Martin Resch: In my responsibility for the Finance, Purchasing, Logistics and IT divisions, for me in particular sustainable corporate management means permanently achieving our corporate goals using as few resources as possible. If we aim for this, this is good both for the environment and for our stakeholders. Let me give you two examples here.

Firstly, let's look at [KHS' international production sites](#). At our five factories outside Germany Production and Service are decentralized and maintain a close proximity to the customer. This means that we avoid unnecessary shipping and can organize procurement locally – without a system where half-finished products are sent backwards and forwards around the globe. This not only has an impact on our ecological system but also a long-term effect on our culture.

Secondly, the corona crisis has challenged us to reorganize the way we work on an international level. This has led to considerable savings in cost and resources that we want to consolidate. In 2020, for instance, we saw a drop in travel expenses of 40% compared to 2019. If we manage to save half of this in the long term once the pandemic has ended without weakening our contact to the customer, we'll noticeably help to reduce the impact on the environment and promote a sustainable style of corporate management.

How do KHS customers manage to combine convenience with protection of the product and the environment in their packaging?

Dr. Johannes T. Grobe: Let's first look at our customers' customers – or consumers. How is their buyer behavior developing? Packaging needs to satisfy several different demands all at once: it must be light, reclosable and unbreakable. The aspect of environmental friendliness is also becoming more and more of a concern. But is packaging really the only driver of climate change? We often forget that across the world about 30% of all food spoils and is thrown away. This amounts to 8% of our global greenhouse gas emissions. With its protective function packaging helps to keep food and beverages fresh, however, and thus also helps to reduce the carbon footprint. There are two sides to the coin.

¹ The Science-Based Targets initiative helps companies to define science-based emission reduction targets in line with the Paris Agreement of 2015.

What does this mean for the demands customers make of KHS?

Dr. Johannes T. Grobe: First of all, the demands made of our customers are becoming ever more complex because these aren't merely fueled by consumers as just mentioned but also by legislators and financial markets, for example. For us as KHS, the order of the day is thus to reduce, reuse and recycle throughout our value chain. We have to stay ecologically and economically fit for the future. With our Bottles & Shapes consultancy program for beverage containers, for instance, we help our customers to use less glass, PET and tinplate and at the same time extend the shelf life of their products and thus save resources. This is an important step towards cutting emissions in the long term.

How does KHS specifically support its customers' sustainability targets, both in the new machine business and After Sales?

Dr. Johannes T. Grobe: Our machines also greatly help to reduce the carbon footprint. Our new [InnoPET Blomax Series V stretch blow molder](#), for instance, cuts electricity consumption by up to 40% and makes more effective use of the material, enabling up to 10% PET to be saved. We've also developed a portfolio of systems and solutions for secondary packaging our customers can counter the plastics debate with: these include the Nature MultiPack previously mentioned by

Kai Acker and the option of [wrapping beverage cans in paper](#) or bundling them into [packs with a cardboard clip](#).

In After Sales, with our Bottles & Shapes program we effect a balance between market-oriented [container design](#), perfect line behavior and the efficient use of energy and materials. With upgrades designed to modernize single machines and even entire lines, together with our customers we implement programs that boost efficiency, achieving an average service life for our machines of 20 years. This also helps to reduce the carbon footprint.

How does the situation for a global company differ from region to region?

Dr. Johannes T. Grobe: Developments may move at a different pace but are now also increasingly reaching countries such as the USA, where until now PET was hardly an issue. Our customers define climate goals and try to also map these onto their value chains. It's therefore good that we established our position here early on, as Martin Resch said earlier, with short distances and a low use of resources through local presence on strategically important markets.

» For us as KHS, the order of the day is thus to reduce, reuse and recycle throughout our value chain. We have to stay ecologically and economically fit for the future. «



Dr. Johannes T. Grobe
CSO

» Sustainability means that qualifications in technical jobs will change in the future, like we're seeing in the course of digitalization. «



Beate Schäfer
CHRO

Where do you see KHS on a scale of reaction to own initiative?

Dr. Johannes T. Grobe: We've long acted on our own initiative when it comes to our machines: just think of Nature MultiPack or Plasmax technology with its recyclable barrier for PET containers. Sustainability has long been on the agenda in our production processes, too – in the sense of a series of small steps being taken. Regarding our global footprint, we started setting up production and service capacities worldwide some time ago, initially in order to get close to the market. This is now also of benefit from the point of view of sustainability. Even if this topic hasn't yet been written into contracts in our industry, our customers are increasingly asking about climate goals and corresponding initiatives and treating this as a condition for cooperation.

What role does sustainability play for personnel in machine construction and engineering and at KHS in particular?

Beate Schäfer: Sustainability is becoming more and more important. At a time when companies tout for potential candidates rather than the other way round, this can be what tips the scales – especially in mechanical engineering that has a rather old-fashioned and not very sustainable image among lots of young professionals. A lot's changing: digitalization means that in the future we'll need very different

qualifications from those required in the past. A company doesn't just consist of one generation, however: we have both digital natives² and baby boomers³ on board and all of them have something to contribute.

Basic and further training also make a large contribution to the sustainable profile of a company. How is KHS positioned here?

Beate Schäfer: We see our various training programs as being sustainable in the sense of social responsibility. On the one hand, our commitment is relevant to society; on the other, it gives us the opportunity to develop our next generation of workers very specifically, to get to know young people and make them loyal to our company very early on.

We also offer our employees an extremely user-friendly platform for further qualification in the form of KHS Campus that provides unburdened access to a wide range of further training courses at KHS.

To what extent does the aspect of sustainability call for special qualifications in technical jobs, for instance?

Beate Schäfer: Sustainability means that requirements will change in the future, like we're seeing in the course of digitalization. I believe this to be a totally normal process: we need to keep an eye on this trend in order to trigger the necessary development in this direction. Consider the fact that we have a lead time of three to four years with apprentices alone, for instance. This means that you have to anticipate now what's going to be needed in a few years. This is quite a challenge – but one we're well aware of.

² Digital natives = members of a generation who grew up in the digital world.

³ Baby boomers = members of a generation born at a time of rising birth rates after the Second World War.

Profile

Kai Acker

After working in the chemical industry, during which time he also spent a good two years in Indonesia, the trained energy electronics specialist and electrical engineer worked for Krones for five years. He was managing director of LEONI Special Cables GmbH from 2012. The 52-year-old has been CEO of KHS GmbH since October 2018.

Dr. Johannes T. Grobe

The computer scientist, who gained his PhD from RWTH Aachen University in 1998, worked for Bosch Rexroth for many years, including as managing director of its facility in India. He joined Dürr Systems as senior vice-president of Sales and Marketing for Paint and Final Assembly Systems in 2015. The 55-year-old assumed his post of CSO at KHS in April 2019.

Martin Resch

The business graduate worked for Klöckner-Werke from 2005 to 2011, from 2009 as general agent and head of Controlling, Finance and Accounting. He was managing director of Salzgitter Mannesmann between 2011 and 2015. The 54-year-old has been responsible for Finance, Purchasing, Logistics and IT as CFO/CTO of KHS since 2016.

Beate Schäfer

After working for Gildemeister and Adam Opel, the lawyer joined the Salzgitter Group in 2008 where she was head of HR Controlling and board member and CHRO for Salzgitter Flachstahl, among other roles. Schäfer has been responsible for Human Resources as KHS' CHRO since the beginning of 2021.



(from left to right) Dr. Johannes T. Grobe (Chief Sales Officer), Kai Acker (Chief Executive Officer), Beate Schäfer (Chief Human Resources Officer), Martin Resch (CFO Finance, Procurement and IT)



Global partner to the beverage industry

Reliable filling and packaging systems from a single source

The KHS Group is a market leader in filling and packaging systems for the beverage and liquid food industry. The German company was established in 1993 following a merger of Holstein & Kappert AG, founded in Dortmund in 1868, and Seitz-Werke GmbH, founded in Bad Kreuznach in 1887 (later SEN AG). The great strength of the KHS Group lies in its 150 years of expertise in all areas of beverage filling and packaging. In 2020 the company and its [5,085 employees achieved a turnover of €1.130 billion](#). The KHS Group is a wholly owned subsidiary of Salzgitter Klöckner-Werke GmbH, itself part of the Salzgitter Group.

The corona pandemic in 2020 in particular presented the group with a number of challenges: we were severely hindered in the implementation and on-site commissioning of projects with customers worldwide, especially during the first lockdown. We reacted quickly, purposefully and above all calmly, initially so as not to endanger the health of our teams out on assignment and that of our customers. Within the group we then very quickly set up a central crisis management team to keep all employees across all production sites informed and to protect them individually by introducing work-from-

home rules and other extended measures, for instance. Since then these have been constantly expanded, especially as regards [occupational health and safety](#), on the basis of a special hygiene concept devised for the KHS Group. Thanks to the shared commitment of all of our personnel we have managed to absorb any potential risks, enabling our company to close the year with a positive balance.

The KHS Group operates ten production sites situated across the globe. At its five plants in Germany KHS develops and manufactures the

full range of filling and packaging machines for processing plastic and glass containers, cans and kegs. It has specialized in the engineering of highly efficient technology yet also offers smaller filling plants and breweries machinery that processes their products.

The KHS Group is headquartered in Dortmund where its factory produces bottle washing machines, pasteurizers, labelers and conveying technology. Parts are also manufactured in Dortmund. The Bad Kreuznach plant pools KHS' expertise in process, filling and keggling techno-

logy. High-performance packaging machines are built in Kleve where the competence center also provides advice on all secondary packaging systems and solutions. Worms is home to our specialists for high-performance palletizers and packing and unpacking systems. Our site in Hamburg has many years of extensive expertise regarding all aspects of plastic containers for the beverage, liquid food and non-food industries and also supplies machines for the manufacture and coating of plastic containers as turnkey system solutions.

Our five [international sites](#) are located in the USA, Mexico, Brazil, India and China. They primarily produce for the local markets and help to implement line projects in their respective regions. A worldwide network of KHS offices in over 40 countries, supplemented by a range of digital services, ensures proximity to the customer. KHS clients thus not only have our global 24/7 Service HelpDesk at their disposal but also diverse remote services for effective off-site diagnosis, plus a digital customer portal in the form of [KHS Connect](#).



1.130

billion turnover



5,085

employees

ALL KEY FIGURES



Creating value

Fields of action at KHS for sustainable and profitable added value

For the KHS Group, corporate responsibility means harmonizing the impact of its business activities with the demands of society. In doing so, we observe legal requirements and incorporate social and ecological issues into the strategies and processes adopted by our company.

On our machines and system solutions our customers in the beverage industry process their products safely, reliably and with energy and resource efficiency for businesses and consumers alike. KHS also provides a range of packaging systems that meet high demands with respect to product design, economy and environmental friendliness and are subject to constant further optimization. With this we help our customers to generate value. This promise of performance is expressed in our claim to be a reliable partner to our customers – our mission statement – with which we provide dependable support throughout the entire productive life cycle of our clients' plant machinery by supplying frequent new value-creating systems and upgrades.

This company vision is openly practiced in its full social diversity by over 5,000 employees from more than 80 nations worldwide. Their commitment forms the basis for a trusting and long-term cooperation with all of KHS' business partners.

Anchoring and controlling corporate responsibility

In order to be able to consistently monitor our mission statement and the claims derived from this, clear roles and responsibilities have been assigned within the company. The KHS Executive Management Board holds general primary responsibility for sustainable and ethical business practice; it establishes principles that apply to the entire group and reaches decisions on policies and investments. The subject matter of these decisions is prepared by the responsible executive managers who also monitor the implementation thereof. Systems of management have therefore been set up at our central divisions and production sites that define processes and operative responsibilities. These also include an increasing number of certified management systems governing compliance, our suppliers, quality, innovation, energy and environmental protection, human resources and occupational health and safety. Furthermore, KHS has performed an EcoVadis audit at all of its production sites every



year since 2015; at the time of writing, it again has a successful silver rating valid until April 2022.

During the establishment of our systems of management local officers were named and charged with assisting with the local application of the various guidelines, defining targets and measures with colleagues and evaluating the achievements made. Through emerging formats for the exchange of ideas and internal reporting, KHS aims to encourage mutual learning processes through status quo assessments, milestones and lessons learned.

In order to record and communicate KHS' corporate responsibility and its contribution to sustainable development, our Corporate Communication Division acts as a central interface in dialog with our stakeholders. We identify the demands made of KHS by various groups through a number of different channels. These include in particular the perspectives held by our employees and their representative bodies, our executive managers, customers, job applicants, the media as stakeholders for the general public and other interest groups. Questions surrounding sustainable and responsible business practice are increasingly becoming a topic of discussion. This is especially evident in the queries posed by customers during talks and that we provide meticulous answers to through our sustainability report and participation in various rating schemes.

Corporate Communication is also responsible for the systematic establishment of KHS' CR reporting system. Here, the company's strategic positions are developed and approaches and achievements made recorded and described together with the executive managers and responsible user departments. In this respect the department closely aligns itself with the CR functions of our parent company Salzgitter AG.

Strategic positions and fields of action

As a successful international company, KHS is particularly responsible for aligning its activities with demands for sustainable development with an eye to its customers and the future. This gives rise to a number of central fields of action that demonstrate how we aim to meet this demand.

1. Customer satisfaction through top standards of quality

Our global demand for quality forms the basis of our success: KHS stands for the highest standards that are always geared

towards customer requirements. The high quality of our filling and packaging systems is the prerequisite for a long machine service life, smooth, efficient production processes, product protection and safety in the operation of our plant technology. In order to meet these demands, KHS engages in systematic quality management, defining and monitoring suitable requirements to this end for its suppliers.

2. Development of flexible and expandable system solutions for sustainable value creation

The requirements customers have of our lines and machines can change in time – not least as a result of market developments, new regulations, innovations, changing patterns of consumption and demands for sustainability. The use of different container designs, alternative secondary packaging or increases in capacity impose new conditions on our filling and packaging equipment. For this reason, it is one of our most important concerns to design our systems so that they can be flexibly amended and expanded as and when required. Providing options for modernization and system modularization are important principles in product development at our company.

3. Consultancy for perfect line design

We always aim to find a system solution for our customers that gives them perfect results

as regards output and cost and resource efficiency. Our portfolio is intended to help them leave as small an ecological footprint as possible. We have aligned our consultancy services based on this principle. We support our customers from the initial plans to on-site installation with our tailor-made concepts, long-term empirical values and customized solutions.

4. Development of safe, environmentally-friendly packaging systems

One of the areas our new and further developments focus on is PET container systems and secondary packaging. In the course of the debate on single-use plastic packaging and the pollution of our environment associated with this, specifications for this type of packaging and the materials it uses are changing. We therefore already now offer sophisticated systems for PET containers based on recycle and lightweighting in an attempt to promote packaging recyclability and in doing so continue to significantly cut carbon emissions. Demands regarding secondary packaging are following a similar course. Here, too, we offer a broad spectrum of [innovative concepts from secondary packaging made of paper to packs held together by nothing more than a few dots of adhesive](#). When developing our packaging systems, our aim is always to save on resources and use fewer primary raw materials – and instead more recycle. Keeping our

promise of protection and optimizing the environmental friendliness of our packaging are the concerns at the heart of each and every new and further development from KHS.

5. Worldwide service concept

We aim to provide our customers not only with high-quality products but also give them expert service on a local level. This means that they are permanently assigned to designated KHS representatives who with their expertise can help to ensure the proper and efficient operation of our clients' plant engineering. We ensure a full local supply to customers of spare parts and consumables, for instance, and can be reached immediately if needed, for our responsibility does not end with the delivery of our machines. On the contrary: this is where it really begins. We can be reached by our customers in many ways: from direct support through our 24/7 HelpDesk through our worldwide spare parts service or IT-assisted remote diagnosis in the event of system disruptions to personal assistance from one of our many service centers located around the world, we are at your service.

6. Responsibility for the people and environment at our factories

As a company that supplies efficient, future-proof lines and machines, we of course pay particular attention to the amount of energy and resources used in manufacture. Electricity, water, natural gas and fuel are required for production and intralogistics, our offices and vehicle fleet and for structural extensions of and modernizations to our production sites. We consider it one of our key tasks to continuously reduce the necessary consumption of the above. For this purpose, we install systems of environmental and energy management at our production sites, continuously improve our production processes with an eye to energy and resource efficiency and encourage the exchange of ideas. At our production sites outside Germany we produce for the local market. This decentral arrangement allows us to react locally to customer demand and accept our cultural and ethical responsibilities as a global company.

7. KHS as a future-oriented and attractive employer

We are aware that our company can only be as innovative, successful and fit for the future as our own employees are. Encouraging them and their development is thus one of our core concerns. This is why we attach the greatest importance to providing fair, attractive working conditions and an open environment defined by mutual respect and appreciation. The most important fields of action for our HR Management are therefore digitalization and process efficiency, creating a modern working environment, assuring skilled labor and personnel development plus the continuous expansion of our occupational health and safety management system.

The various fields of action within our company form the basis of our cooperation – and of our success. We have permanently anchored the underlying values thereof in our everyday work through our compliance guidelines. Moreover, we find it extremely important that our partners and suppliers also comply with established standards.



Compliance: sustainable voluntary commitment

Codes of conduct, reporting systems and data protection

One of the most important guiding principles of our company is that we live by our values and set an example in doing so. We accept responsibility towards our workforce, customers and suppliers and to society and the environment, which is why adhering to ethical and moral standards is much more than just a legal obligation for us. We are convinced that success can only be sustained on the basis of cordial, respectful and considerate cooperation.

This is why the Executive Management Board itself endeavors to set an example with its correct conduct and to demand it of and encourage it in others, too. The Board is responsible for sustainable voluntary commitment: this is the body that actively practices compliance and sets a good example together with the company's executive managers. Every executive manager is required to act as a role model.

This is why we have installed a system of compliance management that is applicable worldwide. At our central headquarters in Dortmund a compliance officer is responsible for supervising adherence

to the appropriate values and codes for the entire KHS Group. Annual surveys and risk analyses are carried out in areas that are particularly relevant to compliance: anti-corruption, antitrust law, prevention of money laundering and criminal acts in general and data protection. Each company outside Germany also has an appointed coordinator who is assigned to deal with such issues when and if required in cooperation with the compliance desk in Dortmund. The valid codices at KHS are:

KHS code of conduct

It was introduced in 2012 and is compatible with the code of conduct adopted by our parent company Salzgitter AG. Both are based on the United Nations Global Compact. The code centers on a shared system of values and principles designed to act as a guide to the manner in which all of our personnel must conduct themselves. It includes regulations on fair competition, the avoidance of corruption and conflicts of interests, transparent reporting, the duty to observe secrecy and various other points. All employees are instructed on the use of the guidelines by their executive managers or our Compliance Department and are encouraged to make queries at any time.

Code of conduct for on-site installation

By way of supplement to our general code of conduct, our code of conduct for on-site installation introduced in 2018 defines specific rules that must be observed when on assignment at customer sites.

A central independent entity for internal reporting has been created through our parent company Salzgitter AG to record as comprehensively as possible any violations of our code of conduct, legal requirements or company guidelines. Notifications can also be submitted to the external ombudsperson's office that are then forwarded to our compliance desk. At the moment we are about to launch our own worldwide notification system for internal and external stakeholders (as of March 2021).

In order to prohibit all forms of corruption and unfair competition, we have implemented a strict four-eyes principle: payments or contractual obligations cannot be triggered by one employee alone. We have people in relevant departments submit an annual compliance declaration and a voluntary commitment in relation to conflicts of interest. Various transactions at our subsidiaries outside Germany

must be approved by KHS GmbH as the parent company in order to avoid corruption.

Compliance with legal provisions in the contract review process is also monitored by specialist contract lawyers. In our technical fields of activity we ensure that legal requirements are complied with through regular and constant observation of the legal situation. Any changes to standards or specifications are then communicated throughout the entire company group. A wide range of basic and compulsory further training courses in the particularly vulnerable sections of our company make sure that our employees are always up to date with the latest information.

Another important concern for KHS is the protection of personal data. To this end, we have assigned a central data protection officer and set up an international data protection organization

in the sense of the GDPR. We also obligate our subsidiaries outside the EU to exercise a high level of data protection. We have introduced a worldwide reporting system to process any violations of data privacy.

UN Global Compact

The [United Nations Global Compact](#) is a worldwide initiative for responsible corporate management based on ten principles – from compliance with human rights to the fight against corruption. Companies can sign up to it on a voluntary basis in order to contribute to a sustainable world economy.



Value-based supplier management

Code of conduct for the supply chain

We are convinced that sustainable business practices yield high quality and product reliability. Our customers are also increasingly requesting proof of this. We can only satisfy this demand if our business partners and suppliers share our conviction. For us, one important prerequisite for a trusting partnership is thus a common understanding of sustainability. To this end, we have drawn up a code of conduct for suppliers that is binding for all of the national and international suppliers we work with. It has been devised based on the measures and regulations of the Salzgitter Group and applies to all levels of the company that maintain business contacts with our suppliers and service providers.

The demands and expectations defined in our supplier code of conduct cover the following areas:

Legality and integrity

This includes compliance with applicable laws, combating corruption and money laundering, antitrust law, export controls and maintaining secrecy and data privacy.

Human rights and working conditions

This encompasses freedom of association, working hours, wages, no child labor, no forced labor and no discrimination.

Occupational health and safety protection

This covers health and safety at work and the prevention of accidents.

Environmental protection

Our sustainability claim is also substantiated in our environmental regulations, sustainable use of energy and resources and climate protection.

The upstream processes and stages in value creation at our company are many and diverse: they range from raw materials such as steel plate and profiles through complex assemblies, electromechanical equipment, drive technology and installation services to entire machines. Accordingly, we have an extensive pool of suppliers who in turn also have their own subcontractors. This is a huge responsibility for us – and also means that we have a considerable sphere of influence that we wish to make positive use of.

Sustainability criteria for supplier assessment

We do not simply inform our partners that compliance with our supplier code of conduct is mandatory not just for them but also for their own sub-suppliers and subcontractors; we also audit our suppliers with the help of questionnaires and documents of proof, such as on certain management systems governing quality, occupational health and safety, environmental protection and energy – and then place them in three categories on the basis of this. These system audits determine whether the supplier is fundamentally suitable or not. There are also process audits and product audits designed to ensure product quality.

The information submitted for a system audit is verified by supporting documents and on tours of the supplier's site.

In order to fully meet our duties of care to respect human and environmental rights throughout the supply chain, we continue to develop suitable risk analyses and test procedures. Our benchmark here are the UN's guiding principles for business and human rights and their translation into the German Federal Government's national action plan. We welcome the legal standardization of requirements at national and European level and shall subject our approach to scrutiny and appropriate further development.

Award winner

In 2021 our efforts earned again KHS a **silver medal** from the **EcoVadis CSR rating** program. KHS has been receiving awards from EcoVadis at all sites worldwide since 2015.

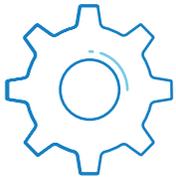
This independent rating tool assesses Corporate Social Responsibility (CSR) in the fields of environment, labor law and human rights, ethics and sustainable procurement.



Product responsibility

Focus on customer requirements





Focus on customer requirements

Our responsibility for sustainable machine and packaging systems

We have been a reliable partner to the beverage industry for over 150 years and supply pioneering filling and packaging systems. Besides being safe to operate with perfect process monitoring, first and foremost plant engineering must save on energy and resources and function reliably for many years. In order to exploit all potential for optimization here, KHS invests in innovations and is constantly further developing its product portfolio. Discernible trends here include modularization, individualization and digitalization of lines and machines. Our customers benefit from a multitude of improvements in this field that we also offer as [conversions](#) or expansion options for their existing production setups. These developments help our customers to quickly and easily adapt and scale their production lines to new [packaging formats](#) while using fewer and fewer materials, for instance.

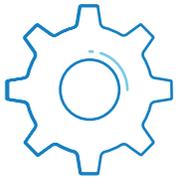
A beverage that is perfectly packaged with regard to product protection, marketing and the environment is the type of end product KHS always focuses on. We give our customers solutions to the growing consumer demand for environmentally-friendly yet safe and practical packaging. To this end, we not only optimize our lines and machines

for an efficient, ergonomic and safe production process but also offer the beverage industry innovative packaging systems. In the face of the ecological, social and health problems caused by our increasing exploitation of resources and the number of pollutants in our environment, we look for and appraise alternative packaging materials such as recycle or paper and cardboard. In doing so, we wish to help reduce the consumption of virgin materials and/or fossil sources and improve the recyclability of packaging. Many of our developments thus concentrate on PET container systems and secondary packaging.



The various demands made of our filling and packaging machinery call for a systematic system of quality and innovation management. With this we ensure that our product range always delivers on its promise of performance as regards product quality and on-time delivery, caters for customer requirements and is state of the art.

With our commitment, we not only aim for a high level of customer satisfaction but also wish to fill clients with enthusiasm for our plant equipment because it gives them a great number of added benefits in the value creation process over the course of many years.



Meeting maximum requirements

Quality and innovation management at KHS

We constantly further develop and manufacture our filling and packaging systems to maximum quality standards and requirements and in doing so ensure that our customers can produce reliably and economically in the long term along their entire value chain. We systematically apply these requirements with the help of our consistent system of quality management. The aim is that our machines and components leave our factories in perfect condition and are reliably commissioned on site.

Assuring, promoting and constantly optimizing quality

Our Quality Management Department centrally controls all aspects of process and product quality for all of the machines and components manufactured at our production sites. Internal and external audits regularly carried out at our plants by Quality Management are a key factor in this. The department is also responsible for annual

certification in accordance with ISO 9001 that is held by [all of our factories](#) except the one in [Suzhou, China](#).¹

These system-relevant specifications form the basis of the high quality demands we have of our products. Our promise of performance, our own aspiration in relation to the high quality of our products, is supported here by numerous operative measures and thus ensured in the long term: we support our suppliers and check the high quality demands made of them at regular intervals. The reactions of their customers from regularly staged workshops, personal talks and a methodical complaints management system are used by us to improve the level of quality of our products.

As a permanent partner to Quality Management, our Process Management Department helps to further develop our company on a national and international level with the help of process models and organizations. It also performs process risk analyses from which risk minimization measures are derived and documented. Regular training of employees at all production sites is also managed by Process Management.

¹ The KHS Group is currently expanding its production capacities in China. To this end, it is investing in a new manufacturing site in Kunshan, also in the province of Jiangsu, that will start production in 2021. This plant will be established according to global KHS standards and management system regulations and certified according to ISO 9001, for example.

Firm focus on customers

Continuous quality assurance calls for a sound knowledge of the wishes and demands our customers have of our machines and other products – and also of fast-changing laws and directives. We therefore hold regular joint workshops with our customers for this purpose. The topics covered include technology, market conditions and market trends. Our participation in trade shows and industry meetings and our discussions with Key Account Management also help us to familiarize ourselves with the quality demands made of our filling and packaging systems both now and in the future. We thus offer over 170 conversions, for example, that help our customers to keep their existing machinery up to date through various modernization measures for sustainable cost-conscious and resource-efficient production.

Developments based on decades of experience

In its long company history KHS has introduced a great number of innovative new and further developments for the beverage industry. This is still very much part of our mission: we aim to supply intelligent product systems with maximum product quality that our customers can depend on in the long term. To this end, we have an R&D management system with its own steering committees in place that is anchored at key levels of the company; the Executive Management Board, departmental heads, Product Development, Sales, Purchasing and Controlling are all fixed disciplines of these committees. They regularly meet to discuss our current development projects and coordinate how these are to proceed.

Example central R&D projects in the reporting period

This means that our projects are always closely monitored from approval through implementation to completion and assessed from a number of different perspectives with regard to time, cost and quality. An annual R&D roadmap is also drawn up for the coordination and planning of future R&D measures between Technology and Sales. All employees involved are regularly trained so that this process is permanently implemented and informed of the procedures to be complied with.

For each project idea we prepare a holistic business case well in advance which we use to subject our idea to intense scrutiny from an economic angle before it is actually realized. Following its launch, the project is presented on a regular basis and examined for any criteria that would result in its termination.

For we work according to the principle that

resources and capacities are specifically assigned and the project is both marketable and future-proof; we do so by studying ideas and development projects extremely carefully from the very beginning and throughout the entire development process.

Here, we fall back on expertise from external research facilities and institutes and on invitations to tender issued by ministries at federal and regional level that we refer to on an individual project basis if topics can be pursued better and more efficiently with the help of such partners.

1. Research funding project

a. User-oriented application of energy-efficient drive technology in production (EnAP)

Funding: the German Federal Ministry for Economic Affairs and Energy
Duration: 11/1/2016 to 7/31/2020

The aim was to devise a method for the energy-efficient and economical selection of electromechanical and pneumatic drive systems for designated drive tasks. Drive structures with integrated energy-saving measures were taken into particular account and used to modify both existing and newly devised production systems.

2. Development projects

Process monitoring

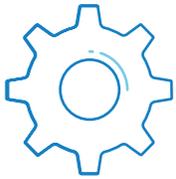
- [Basic Line Monitoring](#): web-based process monitoring system designed to boost line efficiency and precisely record key process data.

Energy and resource efficiency

- [Innopack Kisters TPP tray paper packer](#): secondary packaging made of paper instead of film for beverage cans.
- Packaging system for packs without secondary packaging: [Nature MultiPack](#). Bottles and cans are held together with dots of adhesive, now also with a doubled capacity of up to 90,000 containers per hour.

Long service life

- [Innokit Neo Flex](#) labeling machine: new, expandable labeling system for various applications.
- Conversion instead of new investment: increased efficiency and economy, for example on the bottle washing machine with its newly designed bottle pockets.



Issues of sustainability in the development of filling and packaging systems

Ergonomics, product safety, energy efficiency and durability taken into account

KHS has a responsibility to provide its customers with safe, durable and efficient filling and packaging systems. In turn, these must give consumers a protected, authentic and perfect product that is ideally packaged with regard to the environment and marketing. The operation of a system must meet various specifications to this end.

Ergonomics

Ergonomics/operator safety

Developments for the safe and ergonomic operation of our systems and solutions satisfy our customers' requirement that zero accidents occur during production. This is supported by standards such as CE conformity or customized machine documentation and by an increased number of automation and monitoring processes and simplified operator prompting. **Standardized HMI** or **Human Machine Interface** systems, for example, are **one of the key components** in ensuring **ergonomic and safe operation of our plant engineering**.

Example further developments in the reporting period

1. The aim is that processes on a system can be easily and centrally managed by a few operators. KHS has thus developed a **swivel-arm HMI** for its new, **modular Innoket Neo Flex labeling machine**, for instance, that can move around the machine with the operator, **giving him an insight into the machine processes at all times**.

Changeovers to different container or pack formats are already easy to manage as the operator has quick, barrier-free access to the format parts that are as light as possible and simple to replace. With the help of our **serial QUICKLOCK fast-acting locking system**, for example, **bottle guide parts** on the **Innofill Glass DRS ECO** glass bottle filler for beer **can be exchanged with just a few manual adjustments performed without tools**.

2. Another important approach to development is the **continuous improvement of protective health and safety measures for machine operators**. On our machines that **fill carbonated beverages**, for instance, we have thus **implemented emission measuring instruments** that **monitor the concentration of CO₂ in the air** in the direct operating environment **or the amount of alcohol in the ambient air** to guard against explosions. Regarding protection against broken glass, on our glass fillers we have further improved the protective measures against flying glass for operators.



Innoket Neo Flex

Safety

Product safety

The central task of a filling and packaging system is the safe and hygienic processing of a beverage. The packaging protects the product during transportation to the retail outlet and ensures that it can be safely drunk by the consumer. To this end, the production line requires perfectly coordinated monitoring processes so that any disruptions or faults can be quickly and efficiently identified and batches tracked. These processes also serve to minimize product loss or further reduce media consumption. In doing so, they also help to make production efficient in its use of resources.

Example further developments in the reporting period

IT-based monitoring and diagnostics systems are primarily used here on both single machines and turnkey lines. They ensure product safety, reduce the number of faults in operation and give operators high line availability.

1. Process monitoring: InnoLine Basic Line Monitoring (BLM)

This software is a basic version of the InnoLine MES (Manufacturing Execution System) that focuses solely on process data, product and consumption meters and determining the cause of any external disruptions. This only gives employees the information they actually need to identify weak points or reasons for loss in performance, allowing them to react immediately.

[Find out more](#)

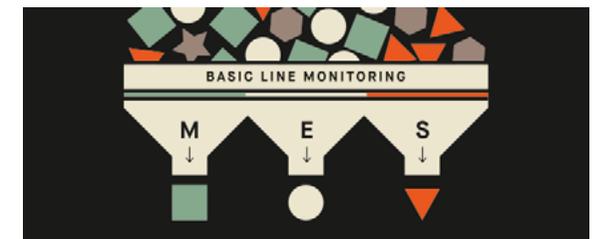
2. Diagnostic information: use of sensors/actuators or what are known as I/O links on systems with multiple functions or interfaces to other machinery.

KHS is introducing a new decentralized system for connecting sensors/actuators up to programmable logic controllers. This system is based on the IO-Link standard. By converting to the new

decentralized system, KHS enables diagnostic information from the sensors/actuators to be evaluated by the IO-Link interface. The new decentralized system will become a fixed feature of our systems and other products.

3. Process optimization on the machine

At machine level, too, our processes are continuously monitored and further improved with regard to product safety and quality. The following gives examples from our beer filling and PET container production portfolio.



3.1 Glass bottle filler for beer

A) OPTICAM: camera-assisted foaming control system

The **OPTICAM** system monitors and automatically **regulates beer foaming during filling**. This prevents product loss in the production process and ensures that the beer is of a consistently high quality. This option is also available as a retrofit and can thus also be installed on older machines.

B) DIAS: diagnostic system for constant quality control

A glass filler for beer can have over 200 filling stations. The **DIAS diagnostic assistance system monitors the entire filling process** and thus ensures the filling quality on all filling stations. It detects glass breakages consistently and automatically across the entire processing angle and identifies process deviations for fast troubleshooting and targeted correction. The system provides all the prerequisites for future predictive maintenance.

3.2. Stretch blow molder

A) Automatic control and adaptation of individual stretch blow mold stations

In the stretch blow molding process the **Unit Mold Control inspection and control system** ensures the **optimum quality of bottles** that contain a high percentage of recycle, especially where inhomogeneous rPET qualities are involved. This system also permits bottle lightweighting by minimizing the tolerances in the blown PET bottle.

3.3. Innopas SX tunnel pasteurizer

A) Variable type

On the **variable type** tunnel pasteurizer **different pasteurization** specifications for products filled into the same container type can be selected by the customer, giving contract fillers in particular greater flexibility. As opposed to standard market systems, documentation facilitates reliable batch tracking; pasteurization unit control continues to fully ensure maximum product safety in this application, too.

Consumption

Energy and resource efficiency/improved performance

Energy and resource efficiency start with initial machine and intelligent line design. This in turn relies on the efficient use of materials in machine manufacture, with a high degree of economy and line availability called for in its later phase of use. KHS also aims to further reduce energy, water and media consumption and consumables such as glue or lubricants in the production process.

Example further developments in the reporting period

1. One clear trend is for a much smaller machine footprint.

On the one hand, this refers to systems with a more compact total area, such as blocks that combine a number of machines that manage various sequence steps in the filling and packaging process. This means that components such as conveyor segments between the machines are no longer required, resulting in a smaller total area.

On the other, smaller footprints can be achieved by downsizing. The aim here is to also grant SMEs – and especially breweries – access to industry standards by supplying systems with a smaller format.

Innopro Ecostab S:

we have successfully reduced the size of our beer stabilization system to make it accessible to smaller breweries in particular.

[Find out more](#)

KHS also strives to further develop its machines with a view to boosting their performance yet without changing the machine footprint where possible

1. Innopack Nature MultiPack:

100% performance increase. This packaging system can now process up to 108,000 cans per hour. To date, the machine was available with an output of 54,000 cans per hour. It can therefore now be operated on production lines with a high capacity. [Find out more](#)

2. Consumables in the production process

Water is one of our most precious resources and, alongside energy, is something customers clearly wish to save more of in the filling and production process.

Our developments over the last few years have thus considerably helped to cut the amount of water used per liter of finished soft drink from 3.6 liters to 1.7 liters, for instance ([source](#)). To this end, KHS is also continuously working on optimizing the hygienic design of its plant equipment, for example. We especially examine how we can save more water and cleaning media on machines that have to be thoroughly hygienically sanitized at regular cleaning intervals for reasons of safety following product changeovers. This helps us to conserve resources and shorten cleaning times further, in turn leading to higher line availability. [Find out more](#)

InnoPET Blomax Series V stretch blow molder

The Series V saves up to 40% in energy compared to its predecessor through the implementation of a completely new heating concept. In the heater the preforms pass both sides of the centrally arranged heating units. KHS has thus been able to reduce the number of heater boxes by up to 40%, resulting in less radiation loss and



considerable energy savings. The output has also been increased from 2,250 containers per cavity and hour to a maximum of 2,800 containers per cavity and hour. [Find out more](#)

Technical changes to our PET beverage bottle manufacturing machinery can also help to reduce bottle weights. By applying what is known as a focus lamp, the weight of a bottle can be additionally reduced by up to one gram.

Innoclean bottle washer

By installing further developed pockets for PET bottles holding up to two liters, bottle washers can also be used for this container size typically found in resource-saving returnable bottle systems. This saves large amounts of water and energy. [Find out more](#)

Innofill Glass DRS ECO glass bottle filler

This filler for processing beer and soft drinks includes a special evacuation and CO₂ purging process for glass bottles that, compared to conventional methods, only needs 50% of the original amount of carbon dioxide for this procedure. An optimized vacuum pump yields additional energy savings of up to 20%. [Find out more](#)

Innopack Kisters TPP tray paper packer

In secondary packaging in particular the demand for alternative forms of packaging made of paper or cardboard is growing. The tray paper packer

is a further development of our high-capacity shrink packer. Here, a paper folding unit has been installed in place of the shrink tunnel. As the shrink unit is no longer needed, this results in clear energy savings. The system can also be integrated into a shrink packer or replace the shrink process. Furthermore, it can be retrofitted into older shrink packers. [Find out more](#)

Pallet conveyors

In pallet conveying we have introduced a new overall concept that increases product quality and further reduces energy consumption depending on the size of the system. For example, we have also cut procurement costs by reducing the amount of space required in the control cabinet or on platforms and we have been able to further reduce costs throughout the entire life cycle of the system by eliminating the energy required for control cabinet air conditioning.

Thanks to the consistent use of frequency controllers, we have been able to reduce the variance of the motors used and boost process reliability in pallet conveying for our customers. A further plus is that the system can be expanded in an existing setup. It thus saves on energy and resources and also helps to meet increasing customer demand for durable systems with a long and efficient service life.



Life cycle

Durability and machine quality/improved performance [life cycle]

KHS manufactures machines and system solutions that are in use for decades. This calls for a wide range of expansion and modernization measures to keep the machinery flexible and future proof. These then enable production lines to be individually tailored to market requirements. With further services, such as an extensive discontinuation management system, conversion upgrades to state-of-the-art technologies, advice on line optimization and a selection of digital service products, we help our customers to increase and extend the value creation of their filling and packaging system.

1. Our customers primarily expand their systems so that they can flexibly adapt to ever faster changes in market demand. KHS provides **modular systems** to this end. One of these is the Innoket Neo labeling technology series that has been successfully engineered based on the modular principle. Here, different pitch circles and labeling modules provide great flexibility as often required on a filling and packing system. [Find out more](#)

Our glass fillers have also been further developed according to the same principle, for example. The result is a standardized filler platform that permits customers to simply and flexibly retrofit further filling methods or container formats on the same platform without having to fully invest in a new machine. [Find out more](#)

New functions can also be simply added later to our **Innopas SX tunnel pasteurizers**. For instance, a machine can be retrofitted with a connection to a cooling tower to save water. All that needs to be done to convert the mechanical equipment is to place a pre-assembled supply module close to the machine and replace the screw-fitted piping parts.

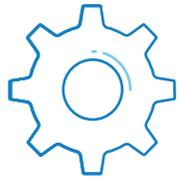
Improved performance also plays a role for our customers in the expansion of their production lines. This concept has therefore also been realized on the **washing and racking unit** of our **Innokeg Transversal** machines. Here, customers can gradually increase the system capacity as and when needed, thus adapting it to suit their exact requirements. [Find out more](#)

2. While KHS' **modular systems** are designed to make plant equipment particularly flexible and future proof, with the help of **conversions** retrofittable throughout their entire life cycle machines can also be modernized with a view to saving on energy and resources, for example, so that in many cases their output and/or low consumption come close to or match that of a new machine. The advantage here is that the customer builds on an existing system, rendering a completely new investment unnecessary in many cases. In the context of the climate debate, customers are increasingly opting for this approach. This trend became even more noticeable with the start of the corona pandemic in 2020. We have been able to cater for this development with a good number of conversion packages and continue to develop our services to this end, offering our extensive range of consultancy services well before legal directives come into effect, for instance. [Find out more](#)

3. **Preventive and digital services:** Discontinuation management or preventive service for electronic components is also an important pillar in plant engineering, allowing our customers to continue production with as few disruptions and faults as possible. As electrical components now have an average service life of just two years, in order that customer lines can be converted in good time and continue to run KHS provides alternatives by way of precaution, such as when HMI systems or measuring devices from various manufacturers are discontinued or when controllers on KUKA robots need to be changed. [Find out more](#)

Moreover, there is a clear trend towards digital services and increased consultancy. With our new digital KHS Connect customer portal, in the future we will not only provide clients with a modern online shop function for a more efficient ordering, service and procurement process but also customized information and advice on service products, conversions and optimization options specifically tailored to their machines. Northern and Southern Europe and Germany, Austria and Switzerland (DACH) are already able to use KHS Connect. The worldwide rollout is continuing: by 2022 all countries are to be linked into KHS Connect. [Find out more](#)

4. In the course of the **corona pandemic** we have driven our range of digital services further. If there is a fault in operation, for instance, regardless of their location customers can now identify the possible causes thereof in real time with the assistance of a service engineer and a pair of data goggles through our Augmented Reality Service (ARS). Customer training courses were also successfully integrated into our service portfolio as online workshops in 2020. Our observations show that these developments will also have a lasting effect on further digital services and processes in talks with our customers. [Find out more](#)



Issues of sustainability in packaging development

consumer protection, health and environmental friendliness

KHS supports its customers with numerous systems that ensure **consumer health and safety** for safe enjoyment of beverages and liquid food. Packaging does much more than just this, however: it also has to meet current demands for convenience and satisfy consumers' growing expectations regarding **environmental friendliness**.



Consumer protection/health

Ensuring consumer safety is the key task of any form of beverage packaging. It must protect the contents so well that the consumer can safely enjoy a product of consistently high quality. From the point of view of safety ([see chapter Product responsibility - Filling and packaging systems](#)) KHS filling and packaging systems satisfy the requirement that a beverage can be filled and packaged in compliance with the strictest food regulations. We offer a wide range of systems and solutions to this end, among them process engineering filter systems that provide reliable protection against microplastic particles in beverages, stretch blow molders that manufacture light, unbreakable containers and filling and capping systems for safe, low-germ and low-oxygen processing. Further stages in the packaging process protect the beverage container from external influences and make it safe to transport to retailers and consumers.

Further developments as regards consumer protection are selective and specifically focus on certain components, especially those of plastic beverage bottles. PET (polyethylene terephthalate), the primary material used here, has become the specific target of public criticism in conjunction with the debate on single-use plastics in our environment, their fossil sources and possible risks to health in particular. As a supplier of machines for the manufacture of plastic containers and partner to the beverage industry, we have shouldered our responsibility and been optimizing containers through attractive and sustainable design for over 40 years. With our developments

we wish to continue to help devise systems and solutions that keep plastic packaging viable for the future. To this end, we channel our efforts towards product and environmental protection in equal measure and make increasing use of secondary raw materials. In doing so, we lay the foundations for sustainable systems that recycle non-returnable packaging.



Example further developments in the reporting period

Recyclate

The trend for the [use of recyclate](#) in PET applications continues to grow. More and more beverage producers are increasing the percentage of what is known as rPET – the recycled material – in their PET bottles. This promotes the circular economy and significantly reduces the packaging's carbon footprint. In the PET recycling process foreign substances are removed by cleaning and decontamination. This ensures that NIAS (non-intentionally added substances) later migrate from the recycled PET into the product.

Furthermore, coatings applied to the insides of the PET bottle can act as a functional barrier against the migration of NIAS.

With FreshSafe PET KHS has therefore developed a unique barrier system for PET containers that protects sensitive beverages such as juice or highly carbonated soft drinks against oxygen pickup or the loss of carbon dioxide and flavor. Unlike conventional barriers that also have these protective properties and contain composite materials, FreshSafe PET consists of a wafer-thin coating of glass that is deposited on the inside of the PET container in a technical process. As opposed to many other barriers, FreshSafe PET can be fully bottle-to-bottle recycled. It can also extend the shelf life of the product by up to a factor of ten. This prevents food waste and extends the radius of product supply, especially in regions with a weak infrastructure.

Microplastic/dust

Microplastics are the smallest particles of plastic generated by the wear on car tires or in the disposal of waste in particular. As a supplier of filling and packaging systems KHS has also been closely examining its machinery and processes from this angle for many years now. KHS helps beverage bottlers to keep any microparticles out of the production process. In process technology filter systems can be used that also filter out ultra-fine plastic particles measuring just 0.2 μm . In PET processing foreign objects – including PET dust – are removed during bottle manufacture from the preform surface by our preform dedusting unit before the bottles are stretch blow molded. An integrated exhaust removes all of the particles prior to the filling process.

The environment

Environmental friendliness

KHS' key area of expertise in packaging lies in its holistic approach. Besides PET beverage packaging, we also provide advice on container optimization for glass bottles and beverage cans. Moreover, we develop new secondary packaging systems for packs of cans and PET and glass bottles. There is also a noticeable trend here towards lighter containers and a greater use of recycled and recyclable materials made of renewable raw materials.

Example further developments in the reporting period

Recyclable barrier

With its Beyond Juice container concept KHS has developed a PET bottle made of 100% recycle with a recyclable Plasmax barrier that is officially recognized by the EPBP and APR. It is especially suitable for sensitive beverages such as juice that require special protection against oxygen pickup. Beyond Juice protects both the product and the environment in equal measure. Using 100% recycled PET improves the PET bottle's carbon footprint by up to 60%. With its Made for Recycling seal recycling specialist Interseroh has confirmed the recyclability of the bottle, including select criteria such as the label and glue. In the test and verification process prior to the granting of the seal the bottle scored a full 20 out of 20 – an absolute first in the segment for PET bottles with barriers. [Find out more](#)

Recycling/weight reduction

The development of a light, fully recyclable, returnable one-liter PET bottle in cooperation with ALPLA illustrates that we regularly work with well-known market partners on the optimization of existing container systems. Together we successfully realized a concept study into how the environmental friendliness of PET packaging could also be further improved for returnable



containers. Adopting a completely new design approach, we devised a container that comprises 35% recycle and is ten grams lighter than a standard returnable PET bottle. The result is a type of packaging that has a greatly improved carbon footprint – not just thanks to the amount of recycle it contains but also during transportation, where the lighter bottle also significantly cuts emissions. This bottle can also easily cope with the high circulation periods usual for returnable bottles. This system is primarily aimed at mineral water bottling plants but is also suitable for every other beverage segment. [Find out more](#)

Material savings

We are also constantly striving to further minimize the amount of material used in secondary packaging, such as film. In addition, we develop alternative packaging systems that use paper or cardboard or do away with secondary packaging entirely, such as our Nature MultiPack. Ideally, where used our secondary packaging consists of as much recycled material as possible. KHS is building up its expertise in this field by strengthening its cooperation with customers and packaging specialists in order to quickly and specifically further develop designated systems. One result of this is the paper wrapper that turns beverage cans into packs of 12 or 24 wrapped in paper instead of film. [Find out more](#)

Safe transportation of secondary packaging

We also advise our customers on the safe transportation – for both personnel and the product – to the point of sale of palletized packs that use alternative or less secondary packaging. To avoid unnecessary waste, the packaged products must also continue to reach the consumer undamaged. This means that the various palletizing stages must also be exactly matched to all new forms of packaging. Packs are thus safely and efficiently stacked onto pallets with the help of special layer patterns. Grouping and palletizing robots ensure that this process is both reliable and gentle on the products. One example of this is the film-free Nature MultiPack, for which we have tailored a number of individual palletizing steps to suit its specific requirements, meaning that it can be transported in a way that is safe, free from dust and gentle on resources.

EPBP

The European PET Bottle Platform is a voluntary industry initiative that provides PET bottle design guidelines for recycling. It tests and assesses new and further developed PET container systems as to their feasibility for bottle-to-bottle recycling. In this way the platform aims to further support and promote the circular economy in the beverage and food industries. [Find out more](#)

APR

The Association of Plastic Recyclers is a North American trade association that strongly advocates the recycling of all post-consumer plastic packaging. To this end, the association draws up design guidelines, for example, and recognizes packaging design innovations that meet its stringent guiding principles governing recyclability, among other criteria. [Find out more](#)



Operational ecology

Corporate environmental protection
in focus





Corporate environmental protection in focus

Meeting demands and setting targets

As one of the world’s leading providers of beverage filling and packaging systems we are well aware of our great responsibility to the protection of the environment. To be able to produce efficient, future-proof products, energy and resources need to be consumed: water, electricity, natural gas and fuel are required for production and intralogistics, our offices and vehicle fleet and for structural extensions of and modernizations to our production sites. For us, further optimizing consumption levels for the above will be one of the most important tasks in the coming years. For protecting the environment as a company not only carries with our own understanding of responsible and sustainable business practice; our customers also expect it of us. Through our commitment to corporate environmental management, as a supplier we pay into our clients’ balance. The growing significance of corporate environmental protection is also mirrored in the increasing scarcity of resources, number of regulatory requirements and expectations customers, financial markets and society have of the company.

All told, by exercising corporate environmental protection we can create huge leverage: with each optimization in relation to climate

protection and energy and resource efficiency we achieve a much better overall balance for the environment – and thus also generate potential financial savings. Find out more about our environmental management program and the measures we are taking in production, logistics and transportation.

From 2021 we want to continue gradually phasing out the use of fossil energy such as natural gas, heating oil and diesel in favor of other sources of energy where possible. We have set clear reduction targets by 2025 for the four resources and energy carriers natural gas, electricity, water and diesel. These targets are regularly monitored by our environmental and energy management system and realigned if there is any substantial change in circumstances.

Our goals for 2025

Energy consumption within the KHS Group	Status quo ¹	Target for 2025 ²
Electricity consumption	-7,44 %	-8,9 %
Heating consumption [natural gas, heating oil]	-4,47 %	-4,9 %
Water consumption	- 43,8 % ³	+1,1 % ⁴

¹ as of 2020; percentages refer to base year 2018.

² percentages refer to base year 2018.

³ significant savings thanks to the introduction of home office measures at the start of the Covid-19 pandemic.

⁴ slight increase in absolute values as a result of the rising number of commissioned lines/machines. Our aim continues to be to keep water consumption down to a minimum in individual cases.



Targeted environmental and energy management coordination

Central control, local implementation

The foundation of our corporate environmental protection policy is its integration into the processes and workflows of KHS. As the most energy and resources are consumed by our company's production sites, this makes them the focus of the above. Here, KHS centrally develops group-wide standards and incorporates these into its local environmental and energy management systems. This approach allows us to devise and implement precise measures that take local environmental challenges into account on the one hand and the production processes specific to the site on the other.

45% of our production sites have implemented an energy management system and 55% an environmental management system and are certified according to the internationally recognized ISO standards 50001 and 14001. This is confirmed both by annual internal audits and by monitoring and recertification audits performed by external, independent bodies. We aim to further develop the systems at all production sites on the basis of these standards.

Encouraging good practice through teamwork and discussion

Environmental and energy management is a module in KHS' holistic production system. The authoritative guidelines define requirements up to and including installation.

Closely networked environment and energy teams at the respective sites are responsible for controlling and implementing specified measures and internal audits. These teams meet once a month to discuss the various measures and the implementation thereof. Twice a year the site teams meet up with KHS headquarters to re-coordinate guidelines, measures and a number of other issues such as current consumption levels and targets. This ensures that all sites are informed of local measures, exchange information on best practices and can apply these themselves where applicable.

Finally, there is an annual management review at group level to set central goals. This is also where a superordinate list of risks and opportunities is discussed. All employees can access a summary for 2019 on the Intranet under Occupational Work and Safety/Environment/Energy.

In order to be able to reach these targets as best we can, we closely involve our employees in the process. Measures to this end include annual safety briefings, our yearly sustainability days (with the exception of 2020), screens that provide information on environmental and energy issues installed in our canteens, our KHS family day and the company Intranet Helios. With the above, we encourage our workforce to refrain from making any journeys that are not absolutely necessary and to identify and exploit their own areas of potential to help achieve our targets, among other things.

Environmental management forecast

In the future, KHS' environmental and energy management is to be expanded in the course of ISO 14001 and 50001 certifications of our international production sites.



Energy efficiency across the board

Cutting down on gas, electricity, water, CO₂ and waste

With our system of environmental and energy management we want to make our contribution to the protection of the climate and the environment. The central approaches being driven locally at our various production sites are intended to boost energy and resource efficiency and help us switch over to regenerative sources of energy.

We have defined concrete measures that put our environmental and energy management policy into practice not just for the manufacture of our plant machinery in our production shops but also for the entire production environment, including our offices, vehicle fleet and logistics setup, for example. Taken together, this gives us considerable potential when it comes to protecting the climate and using energy and resources efficiently.

The heating energy we need for our buildings is currently still being provided by fossil fuels – chiefly by natural gas but also on a smaller scale by heating oil. From 2020 onwards we intended to replace the use of heating oil with other sources of energy. However, owing to the pandemic and all the consequences thereof, this endeavor has been rescheduled for 2021. We need electricity at all of our plants

for our production machines, the lighting and air conditioning of our buildings, our IT infrastructure and the operation of our equipment. Our projects designed to boost energy and resource efficiency by optimizing production make a major contribution here.

Furthermore, we have also been able to yield substantial efficiency benefits through technical innovations in the production environment. We are continuously searching for further potential areas of optimization. Regarding lighting, in 2019 we changed the lights with each office refurbishment and also in the course of several individual projects. We have also installed new lamps in our building technology system to facilitate intelligent lighting control and thus enable savings to be made. The projects implemented in 2019 and 2020 have resulted in using 702,233 kWh less per annum.

As part of our commitment to climate protection, KHS in Germany has been using electricity from renewable sources since 2016. The power companies we use confirm this by issuing appropriate green power certificates. Through this we were able to save a total of 10,868 metric tons in CO₂ emissions in 2019 and 2020.

Involving our employees

Water is used at KHS for a number of different reasons: in our kitchens and sanitary facilities and in test runs of our machines, with water used at the sites where they are manufactured – Dortmund for our pasteurizers and washing machines and Bad Kreuznach for our process engineering systems and filling machines. In exceptional cases a fire water pond also has to be filled. As a rule, we aim to use as little water as possible.



702,233 kWh/a

less use



10,868 t

CO₂ emissions saved

ALL KEY FIGURES



Energy and resource efficiency through production optimization

When it comes to the efficient use of energy and resources, our production processes give us considerable leverage. Optimizing the various stages in machine production in particular has a significant impact on the total ecobalance: the shorter the manufacturing and assembly lead times are, the gentler on energy and resources production ultimately is as a whole. This is why we have turned our attention to both the material flow in production and the use of consumables.

If several manufacturing steps can be performed on just one machine when producing components, far fewer resources are needed than when production is spread out across several manufacturing machines. We have achieved this with our new Sheet Metal Manufacturing Department: in our almost completely new machine park, one combined punching/laser machine carries out the work processes of several machines on a single piece of equipment, for example. This automatically saves on resources and the amount of transportation required within the company is reduced. Moreover, the new machine park significantly cuts down on energy and media consumption (industrial gases).

3D simulation of the sheet metal bending processes is used prior to production to check for plausibility and for validation. This process of advance technical clarification results in far fewer rejections. In addition, energy-efficient conveying technology at our sheet metal warehouse enables energy to be partially recovered. With these measures we ensure that our customers receive top-quality products on time and with sparing use of resources.

With our new W3-certified welding fume extraction system at the Parts Product Center in Dortmund we have invested in an energy-efficient system that is state of the art. Its extraction capacity is controlled by a frequency converter, meaning that the extraction power and related energy consumption adjust to the current production capacity in real time. This system allows us to treat the extracted air to the required

level of purity and then feed this back into the production system in the form of a closed loop. In the cold months further heating energy can also be saved in our production shops through the use of waste heat. The system is used for the manufacture of components for both bottle washers and pasteurizers – another integrative approach to factory planning that creates synergies and makes for cost efficiency.

Furthermore, we have pushed ahead with the spatial consolidation of our Bottle Washer & Pasteurizer and Conveying Technology Product Centers in Dortmund in order to reduce the amount of transportation required within the company and thus lessen the use of resources. This significantly helps to make our transportation and logistics setups more sustainable.

Closed loops, waste separation concept and returnable load carriers

We are striving to make a further key contribution to the conservation of resources by changing over to ecofriendly materials and closed loop systems and by reducing or avoiding waste and the influx of contaminants. Here, for instance, we have devised and introduced detailed concepts for the separation of waste in the production process that have reduced our energy consumption. One example of this is the new waste separation system developed for production in 2019 and launched in two pilot areas at our factory in Dortmund.

Further measures include an increased use of returnable load carriers to cut down on packaging materials and waste and the use of a welding robot for large parts at the plant in Bad Kreuznach that enables raw material thicknesses to be reduced and the quantities of welding media required for this purpose to be decreased.

Outlook: all told, these measures are intended to further harmonize the production systems at our various national and international locations in the context of a worldwide production concept.

[ALL KEY FIGURES](#)



Sustainable logistics and traffic

Optimum planning of prime importance

To avoid pollution harmful to both humans and the environment, KHS aims to further reduce its movement of people and goods and thus cut down on greenhouse gas and toxic emissions. To this end, we find it extremely important that the traffic of goods within the sections of the supply chain we hold sway over is perfectly planned and coordinated. Timely planning means that air freight can be avoided, for example, which not only creates high emissions but also incurs considerable expense. Another important measure is that we combine various shipments to avoid empty runs. We have optimized our network for this purpose and are in constant contact with haulers with the aim of achieving ideal capacity utilization. The logistics partners we use undergo regular sustainability checks, as for us this is a necessary requirement when engaging in a partnership.

In order to achieve the highest possible efficiency, we are steadily digitalizing all of our internal and external processes. Furthermore, the use of new IT tools prevents unnecessary documentation on paper. One new feature of our shipping/logistics operations is that

we now calculate individual projects with a larger volume with the help of a CO₂ computer in order to optimize the means of transportation selected. The freight forwarders we work with are also attaching increasing importance to this issue and in some cases already have their carbon emission reduction achievements audited.

For actual shipping we constructively consolidate all of the materials for the project while conserving resources. We therefore ship our machines in reusable packaging made of long-lasting materials; this includes pallets and the materials used for housing and secondary packaging. No complete and dedicated data on traffic and transport carriers in logistics is yet available for the reporting period. In coming years this will be transferred in a systematic data collection process, however.

ALL KEY FIGURES

Subheading Vehicle fleet, business trips and employee commuter traffic

KHS GmbH's own vehicle fleet in Germany is managed by our headquarters in Dortmund and consists of 328 vehicles (261 company cars and 67 pool vehicles). The pool currently comprises 90% diesel vehicles. Bearing our infrastructure requirements and cost in mind, these are to be replaced by alternative, more environmentally-friendly drive concepts in the future. The use of new electric or hydrogen-powered models is currently being examined.

For business trips our employees use vehicles provided by our vehicle fleet or travel by rail or plane. In order to further reduce the amount of business travel, we are constantly working on implementing video conference systems. By collecting extended data on our business traffic, in the future we want to find potential for reducing the number of business trips undertaken by our personnel and switching to ecofriendly forms of transport.

Regarding commuter traffic, we endeavor to sensitize our employees to this issue and appeal to their own sense of responsibility. For example, with our cycle to work campaign we not only help to protect the environment but also improve our colleagues' health and fitness.



Social

Future-oriented employment as a
guarantee of success





Strategic positioning

In exercising social responsibility we focus on the people who are directly and indirectly connected with KHS. First and foremost, these are our employees and their families, our customers and suppliers and the communities where our production sites are located. Here, we are convinced that our success depends on mutual esteem and fair cooperation.

Our employees are our most precious commodity. Success and progress depend on them; they shape the future of our company. KHS thrives on the expertise, commitment and innovative spirit of its entire workforce. This is why we attach the greatest importance to providing good working conditions and an open environment defined by respect and appreciation. This includes specifically involving our personnel in company matters. Our change and improvement processes, for instance, are developed based on our employees' experience and expertise.

Comprehensive strategy

The biggest challenges to society we face today encompass not just climate change but also the development in our demographic, including the transformation in the availability of the required qualifications that results from this – plus digitalization and the associated general changes this brings to our working environment.

These challenges are addressed by KHS GmbH in the context of its social responsibility. It has thus implemented a human resources strategy. Embedded in its corporate personnel policy, the KHS GmbH HR strategy defines four fields of action:

1. Digitalization and process efficiency
2. Modern working environment
3. Assurance of skilled labor
4. Personnel development.

For each of these fields of action we have devised numerous measures that are being implemented step by step. These include, for example, optimizing the recruitment of young professionals through qualification initiatives, fostering potential, strengthening employee loyalty and making HR processes as efficient as possible. The activities that result from the above fields are supplemented by a targeted change management system.

Our employees are at the core of our HR processes. This is why we provide a perfect working environment that protects the health of our personnel and encourages their performance, motivation and productivity. We specifically promote and make especial demands of our high performers and people with potential. The skills and knowledge of our employees hold the greatest value for us. This is why we run an excellent personnel development scheme and outstanding programs of basic and further training. Furthermore, we ensure a specific transfer of knowledge in order to keep our expertise in the company. In all of our activities we take the demands made of our employees specific to their stage of life into account. In doing so, we bring about a change in social priorities within the company.

With our HR strategy we aim to further increase our company's competitive edge and innovative skills, provide our workforce with optimum chances for advancement and shoulder our responsibility to society.

SEDEX | SMETA

SEDEX (Supplier Ethical Data Exchange) is an online platform that provides internationally recognized SMETAs (Sedex Members' Ethical Trade Audit). These assess issues such as working conditions, occupational health and safety, hygiene and environmental management.

Future-oriented employment as a guarantee of success

For KHS, providing someone with a future-oriented, fair and secure job is not only desirable but also of high business relevance. Some of our customers require that we hold certificates on sustainability and social responsibility, for instance. Here, we have been able to provide proof of consistent SEDEX SMETA certification since 2012 and an EcoVadis certificate since 2015. Issues such as labor law and human rights, occupational health and safety, sustainable procurement and environmental management, among others, have also been audited at our company.

The working conditions at our company are also a key deciding factor when attracting new employees. At a time of fierce competition in the

drive to recruit and commit specialist workers, we find it both essential and elemental that we offer our personnel an excellent working environment, ensure fair working conditions and hold them in high regard.

At all times we are a reliable and strategic partner for all of the people who work for us. Our work together is built around a performance culture based on trust, respect and esteem and on fair and cooperative partnership. We are convinced that in this way we will also be able to gain good employees for KHS in the future.

Trusting partnership

If we are to work constructively together on an equal footing, it is important to our employees that their interests are represented across a broad spectrum. This is ensured by trade unions, work councils and other employee representative committees according to the legal basis. The Executive Management Board regularly confers with these associations in order to analyze the company's development and working conditions. This trusting and constructive cooperation has a positive impact on our social standards.

In order to ensure that all regulations that must be observed during company activities are adhered to, such as the relevant laws and our in-house rules (for example, our code of conduct and compliance guidelines), our personnel receive instruction on topics such as compliance and data privacy on a regular basis.

Including our subsidiaries outside Germany in the drawing up of our corporate guidelines and memoranda extends the range of application of our national standards. Internationally applicable standards/regulations thus respect the relevant local provisions.

We are convinced that with our HR strategy and the measures derived from this we are well prepared for the challenges of the future and fully able to shoulder our social responsibility. Under the auspices of our HR strategy we can rapidly adjust to all social changes and in doing so always cater for the needs of our workforce in an appropriate manner.

EcoVadis

EcoVadis is the leading international platform that rates corporate social responsibility and sustainable procurement in companies in the context of environmental, labor law and human rights.



Ensuring success with targeted personnel management

Employee satisfaction and corporate co-determination in focus

An optimum system of personnel management reflects how valuable a resource employees are for a company. The way in which working conditions are treated is an indication and manifestation of the standing that personnel actually have. This is why personnel management plays a decisive role at KHS.

Our human resources management system is specified centrally by the group for all production sites. This ensures that all of the necessary IT and data privacy standards are met. The requirements are defined by Salzgitter AG with the group mandate, a data administration system for personnel issues and processes. The Central Human Resources Division controls the issues that concern all production sites centrally from our headquarters in Dortmund. This is where our strategic functions are also anchored. Proximity to employees and user departments is ensured by HR officers appointed at the respective plants who exchange information on goals, measures and developments on a regular basis.

We are convinced that non-financial goals also contribute to the success of the company in the long term. This is why not only key economic figures but also ecological and social objectives are important when drawing up agreements with our executive managers. For several years now we have thus fixed annual targets group-wide in order to intensify the further training of our employees and further reduce the number of accidents.

Co-determination on an equal footing

We find it particularly important to inform and involve our employees at an early stage in order to identify together potential for the further development of working conditions and the working environment. The way in which personnel are involved varies from plant to plant in order to respect the different legal requirements. In Germany, each production site has works council committees that represent the young person's and trainee representatives (JAV) and severely disabled person's representatives (SBV) and belong to the joint works council, joint JAV and joint SBV respectively. If there are larger changes to the company, we work towards a fair reconciliation of interests and social compensation plan together with the employee representative committee. There have been no major changes

to the company within the reporting period. Special topics, such as occupational health and safety and basic and further training, are dealt with in dedicated committees.

At our German production sites a number of company agreements have been negotiated with the works council to strengthen employee interests. They govern the rights, obligations and obligatory standards for personnel. These include company agreements on the following topics, among others:

- Workplace Health Promotion
- Training
- Inclusion
- Addiction Prevention
- Company Suggestion Scheme
- Continuous Improvement Process (CIP).

One important aspect of our HR strategy is the KHS code of conduct that focuses on the respectful treatment of one another, among other things. It is described in detail in the chapter on [compliance](#).

As we find it extremely important that the agreed regulations – both our code of conduct and our company agreements – are actually adhered to, audits and tests are a matter of course for KHS. These include:

- Assessments for exceeding work time limits
- Internal company revisions
- Cooperation with the employers' liability insurance association
- Internal occupational health and safety audits
- External audits and certificates such as EcoVadis.

Convincing working conditions a mark of esteem

Our day-to-day dealings with one another, the working conditions on site and the salaries and additional benefits we provide are seen by our employees as a mark of our esteem and fairness. If we are to commit our employees to the company in the long term, it is very important that they have a sense of purpose in their own work and receive recognition for it. Long years of service to the company and a low fluctuation rate are both indicators of the level of satisfaction among our employees.

Our employees receive an attractive salary – whether they are on the regular pay scale or not. Salaries consist of a fixed sum and a fair, performance-oriented allowance. The respective collective wage agreements of the metal and electrical industry apply, to which KHS is committed thanks to its membership of various trade associations. Moreover, our company car guidelines clearly regulate when employees can make use of one of the vehicles in our fleet.

Further extra benefits include our company pension schemes, such as the MetallRente and SZAG Model programs, and an occupational disability and accident insurance plan. Our employees can make their own contribution to their later financial situation through our company pension program: here, they save a percentage of their salary for their retirement that is then topped up by the company.



18 years

Average years of service for the company



46 years

Average age of the core workforce

ALL KEY FIGURES



Transferring knowledge and fostering talent

Basic and further training at KHS: a win/win situation for all those involved

Personnel development enjoys a very high status at KHS. This is demonstrated by the many measures we have taken to provide our employees with valuable knowledge and retain their loyalty in the long term.

Our commitment in this area centers on three key challenges that we wish to successfully tackle with our various strategies:

1. Demographic change, meaning that many of our experts with their extremely valuable knowledge will retire in the next few years
2. A lack of specialist workers in industry that also affects KHS
3. Digital transformation that is making frequently changing demands of employees and executive managers and calls for new learning concepts.

Our answer to these challenges is to devise numerous measures as regards personnel development as part of our HR strategy that in turn is embedded in the policies stipulated by our parent company Salzgitter AG.

Transferring and safeguarding precious knowledge

The change in our demographic is making it necessary to secure an early transfer of knowledge so that expertise relevant to the company stays within KHS in the long term. As a number of experts who have been with us for many years are due to retire from the company in the near future, in the 2019/2020 reporting period we introduced a method for the transfer of knowledge. This systematically records the expertise of someone due to leave the company so that it can be passed on to colleagues and successors and is thus retained within the company.

Exchanging information across our individual companies is also conducive to the transfer of knowledge. This has been triggered by our designated KONZA program (KONZernweiter Austausch or company-wide exchange) that was called into being during our 2018/2019 campaign year to intensify cooperation throughout the group. This initiative is derived from the group-wide YOUNITED mission statement and aims to encourage employees of Salzgitter AG and all its companies to see work processes, methods and expertise in the same light. It has given employees an insight into how people in other departments work and thus identifies new areas of potential through various workshops, idea labs and internships.

Training, fostering and retaining skilled workers

We are meeting the competition for skilled workers with a wide range of forward-looking training options at our company. Each year we hire around 50 apprentices and trainees throughout Germany and attach great importance to imparting knowledge using a number of different formats right from the very start. Over 80 percent of our trainees are taken on, meaning that we satisfy much of our demand for specialist personnel ourselves. The [spectrum of courses we run](#) is large. Besides internships for high-school and university/college students and work/study programs, we also offer apprenticeships for the following careers:

- Mechatronics engineer
- Industrial mechanic
- Metalwork specialist
- Industrial clerk
- Machining mechanic.

Interested young professionals can also apply for the following dual work/study programs:

- Industrial engineering
- Mechatronics engineering
- Mechanical engineering
- Electrical engineering
- Electronics engineering.

In addition, we also operate special trainee programs for graduates and our post-apprenticeship courses Fit4Commissioning and Fit4Service. These specifically build on the basics learned during training and allow people to specialize in what could be the first step towards an expert career.

With our special Fit4KHS onboarding program we ensure that new employees have the best possible start at our company and are given the chance to familiarize themselves with our

procedures and their new colleagues early on. This also includes instruction in an area that is extremely important to us: [occupational health and safety](#).

As an employer we want to keep and continue to foster people who have started out with us – whether as a trainee or executive manager – and have settled in well and made a good contribution to the company. This results in a clear win/win situation: the employee continues to develop and amass knowledge in his or her specialist area that can be directly applied. We as a company counter the lack of specialist workers by recruiting new expert personnel ourselves – and earn their loyalty because their qualifications are precisely tailored to their job and they can become involved in the company.

Effecting the digital transformation

Digitalization is changing the working world of tomorrow. We have to adapt to this today and in the future continue to steadily build up new areas of expertise in a life-long learning process. It is important to adjust this to the needs of our employees and make access to this expertise as simple as possible. This is why we are developing new concepts and assisting learning processes, also using software, in a dedicated group learning management system.

We have instigated a diverse range of further training options for our employees at our in-house KHS Campus academy. It is available to the entire workforce and provides courses in soft skills (such as IT, languages, communication and methodological skills) as well as in a broad range of technical subjects. Our further training and personnel development measures are also provided digitally in the form of webinars, for example.

Another module in our personnel development program is our talent management system that we have established anew in the reporting period. It specifically promotes those with high potential and supports them through a mentoring program. At KHS employees also have the chance to take part in our own special management development program entitled KHS Fit4Leadership and in personnel development programs run by Salzgitter AG. Management lectures and experience discussion groups round off our range of educational services. On request the Human Resources Department also devises courses of further training for entire departments.

It is important that we offer women the same opportunities for development as their male colleagues. For this reason we have signed up to Salzgitter AG's Career paths for women orientation program that addresses female employees who wish to specifically plan their career and

can envisage taking on a managerial role within the group. The program primarily concentrates on issues such as professional goals, skills, experience and whether a managerial or expert post is preferable. Another measure in place is our mentoring program for women, part of the FORWARD personnel development scheme offered by Salzgitter AG. Here, participants have the opportunity to talk to a mentor from the executive management about how best to plan and develop their career. An introductory and concluding session with the Salzgitter Executive Management Board and individual workshops staged by external providers complement this program.

ALL KEY FIGURES



Heightening awareness of occupational health and safety

From instructions and training to OHS software

In a production company like ours occupational health and safety or OHS is extremely important. We constantly monitor and invest in occupational health and safety measures in order to give our workforce the best possible protection against health hazards with the help of training courses and modern technical systems. Even if we have been able to further lower the number of accidents in the past few years, they can never be completely ruled out. We meticulously examine the reasons for any accidents and feel that our motto of “safety at work is a matter of thought” is confirmed in this respect; it is often personnel themselves who are not always aware of a potentially dangerous situation. This is why we focus on continuously strengthening people’s attitudes towards occupational health and safety. The aim here is to change familiar patterns of behavior that can cause mistakes and accidents.

Our OHS measures are based on Salzgitter AG’s group guidelines on occupational health and safety. The KHS Group’s occupational health and safety management program has been ISO 45001 certified at all

German production sites since 2019. Additional internal audits ensure that our group-wide OHS regulations are complied with.

We have assigned a chief safety engineer and, accordingly, have established the position of health and safety officer with the respective responsibilities as required by Germany’s Occupational Safety Act at all of our German factories. Our site managers regularly convene for Salzgitter AG’s group health and safety workgroup, thus ensuring that experience in this field is shared across all of our companies.

Always up to date

As our executive managers act as role models, how they behave is extremely relevant. They therefore sign what is known as a transfer of duties when they join KHS; this regulates all standard responsibilities with respect to occupational health and safety. This includes, for example, instructing employees and ensuring that first aiders are appointed. Executive managers also draw up risk assessments using the new Quentic OHS software. This was introduced in 2019 and helps us to identify and assess hazards so that we can take suitable measures to minimize these. Here, it is obligatory that accidents, near-accidents and entries in the accident log are reported centrally so that our health and safety officers can follow up any incidents accordingly. Lost-time accidents and accident log entries with a high risk potential are analyzed with the help of a questionnaire. Those responsible then derive measures to prevent such accidents being repeated. The register of hazardous materials is also managed, centrally documented and analyzed in this context.

To this end, all risk/hazard assessments are split into five categories:

1. Hazards posed by the main activity
2. All hazards on the plant premises or in the vicinity of the workplace
3. Organizational hazards resulting from a breach of duties, such as a lack of instruction or failure to appoint a first aider
4. Hazards for pregnant women and those breastfeeding
5. Psychological stress from a catalog of 16 hazards.

This allows all health and safety officers to quickly access specific information. Each quarter OHS committee meetings are held at all of our German sites, during which all incidents are recorded and strategies are implemented. Here, the appointed committee members have the chance to examine occupational health and safety at work from various perspectives, optimize processes and develop measures for the implementation of OHS objectives.

We run a travel risk management program specially for installation sites outside Germany and travel to and from the same that enables risks to be assessed for all those concerned. Any measures deemed necessary can then be derived on the basis of this. Further travel risk management measures include our HSE (health, safety and environment) manual for installation sites, HSE audits on installation sites and the provision of support for employees regarding medical issues and travel safety by our external services provider International SOS.

All employees in focus

We implement an extensive range of measures to help sensitize our personnel to issues of occupational health and safety on a continuous basis. These include in particular:

- Topic of the month: this is a one-pager that centers on various issues of occupational health and safety and environmental and energy management. It is distributed to all executive managers every month and discussed with employees during team meetings. Furthermore, once a year what we call

sustainability days are staged at our German production sites where occupational health and safety also plays an important role. This event was not held in 2020 due to the corona pandemic.

- Training programs for various employee groups in the company: special courses of further training on occupational health and safety during system installation and maintenance have been compiled here, for instance. Our special behavior-based occupational health and safety course is geared towards executive managers and provides information in particular on the legal basics, applied OHS and on executives' need to set an example with respect to occupational health and safety.
- In 2019 a communication campaign on occupational health and safety was launched at our German plants. Potential risks of accident are pointed out and awareness of these heightened by posters and signs, etc.

Responsibility for employee health

The corona pandemic has marked a watershed in the company's regular health management program during the reporting period, where the top priority has been to prevent the spread of the virus. As a result, an international crisis management team has been formed for the fast and efficient implementation of the hygiene and protective measures decided on and to document the course of infection within the company.

Regarding general health, we especially motivate our employees to make use of KHS' in-house fitness and prevention program. One example here is our healthy backs in the workplace program launched in 2019: here, a health manager visits every workplace at KHS and advises employees on ergonomics and the work processes a person executes every day at their workstation. Following this, our health and safety officers receive anonymous evaluations that contain recommended actions. These are then discussed with the respective executive managers and implemented where required.

With all of these measures, our aim is to promote and increase the health of our personnel.

In addition to offering seminars on stress management, resilience and mindfulness, employees suffering from psychological stress can also contact our occupational health service. This is responsible for workplace integration management following psychological treatment. We also provide ideas for active lunch breaks to encourage active health care. Moreover, the company health management program steering committee also meets at least once a year to debate new measures and ideas that further foster the occupational health and safety of KHS employees.

[ALL KEY FIGURES](#)

Corona crisis management team

In the course of the Covid-19 pandemic KHS has called a crisis management team into being at management level that meets twice a week and also involves the Executive Management Board. A list of measures exists that gives the preventive action taken, the various responsibilities and data on measures completed. In addition, employees can address any queries or concerns they have on this subject to a dedicated Covid-19 email account. Emails are processed quickly and directly by the crisis management team.



Local commitment – our obligation to our site locations

Focus on education and science

Our policy of social commitment is derived from Salzgitter AG's group-wide site concept that defines criteria for the systematic and transparent promotion of cultural, social and sports projects and initiatives. One of the key aims of this is to improve the quality of life in the communities where our employees live. This is turn endeavors to strengthen and make visible the regional commitment shown by our respective company production sites. KHS' commitment to society thus primarily takes place at a local level. A total of € 96,000 was donated to charitable projects in the 2019 reporting year.

In many instances requests for assistance are directly addressed to us by our committed employees who know and are an active part of projects worthy of support. It is worth mentioning that in certain cases our personnel waive their own premiums to the benefit of charitable institutions – such as the Control Cabinet Manufacture Final Assembly team who have financially supported the St. Vincent Jugendhilfe e.V. in Dortmund. The successful social 'wish tree' project in Dortmund that grants children at a local hospice a Christmas wish was also initiated by KHS employees.

Our international factories also have close ties with the towns and communities where KHS' production sites are located.

Many of them have represented the company since the 1970s and 1980s – and not just as regards KHS' quality products and local services for regional customers. For example, the close, personal relations the [KHS factory in Waukesha, USA](#), enjoys with its employees and their direct social environment has prompted it to offer support for many years by committing to various charitable or voluntary projects, for example.

Focus on education and science

Our commitment to society at a local level focuses on sponsoring community projects on the one hand, such as the Dortmund food bank, and on running long-term scientific and educational projects on the other. We see the latter as an important opportunity to introduce future jobseekers early on to the many different careers on offer at KHS. At our plants in Dortmund and Kleve especially lots of long-term partnerships have already been formed as a result.

- **Commitment in schools**

As part of our educational partnerships with schools we present our spectrum of apprenticeship and job profiles locally. In doing so, we make direct contact with school students and offer them extensive advice on related topics such as their personal life plans and career paths.

Moreover, we sponsor school classes and support various teaching formats with our expertise and materials. School students also have the chance to get to know our factories in situ. Here, they are given a full insight into what their future workplace and field of activity could look like. This includes all aspects relevant to work, such as responsibility, corporate co-determination, in-house commitment and training courses to encourage and strengthen personal and social skills. This direct exchange is of great benefit to all those involved.

- **Commitment at universities**

Supporting science and scholarship is of especial importance to KHS. This is not just because extremely high demands are made of our own products and services and we attach great value to giving these a scientific basis; we also believe independent research and development to be crucial to progress and the future.

At university level, in Dortmund we work closely with the local technical university (TU) and Graduate School of Logistics. We demonstrate commitment in this field by staging practical days for students or degree lectures for the Chair of Corporate Logistics. We also take part in the Learning student corporate consultancy program. At both the TU and University of Applied Sciences in Hamburg we present models from our dual work/study program. We are also constantly intensifying our cooperation: the plan is for KHS to expand its expert lectures on technical topics so that these become a fixed feature of the local courses of study.

Awareness for the protection of the environment

In our partnerships with educational institutions issues relevant to the environment are also always on our agenda. Whether specialist lectures at the university or when introducing school students to our many different jobs, we always actively address environmental protection issues and invite students to reflect on and discuss these together.



96,000 €

was donated

[ALL KEY FIGURES](#)



Around the globe

Our production sites outside Germany

KHS has been firmly established worldwide for decades, with its business activities very much characterized by its global alignment. We set up our first production site outside Europe in São Paulo, Brazil, in 1962. Over the course of the following decades, further factories were founded in the USA, Mexico, India and China. The majority of our plants outside Germany manufacture for the regional market according to international quality and ethical standards; local customer projects are also supported and numerous services performed for clients directly on site.

Our often extremely long presence in the various countries has forged close links with our employees and their families who usually live very close to

the factory. These are the people we focus on when addressing issues of occupational health and safety, further developing employees' personal skills and improving production processes. Furthermore, we see ourselves as a part of the society we operate within at our production sites. We therefore also organize various initiatives and support community programs at a local level. We are aware of our responsibility to our workforce and our customers. Quoting example projects from the reporting period, the measures implemented at our factories and in their local social environments that are outlined in this report perfectly illustrate this.

* As of the editorial deadline (May 3, 2021), the Sarasota site and the associated sales and service location in Fairfield/USA have been sold



Brazil

Setting an example

KHS has operated its own factory in São Paulo, Brazil, since 1962, making this the oldest production site outside Germany within the KHS Group. This is where we manufacture machines and components for our process engineering, filling technology and conveyor systems. KHS service teams based at our plant provide our customers in Brazil and the neighboring regions with direct support on site. When manufacturing our products, we endeavor to save further on resources in all processes and thus reduce our impact on the environment in the long term.

High demands of quality are made of the manufacturing process and products at São Paulo. The plant thus operates in accordance with the international ISO 9001 management system and in doing so complies with the KHS Group's quality and process specifications. Moreover, the factory is audited by SMETA/SEDEX and EcoVadis on a regular basis.

Each measure ultimately also helps to have a lasting positive impact on the social environment of our workforce and their families and thus on the local community.

Focus on waste reduction and energy and water consumption

This is why we have made waste reduction and energy and water consumption the focus of our efforts at our site, for example. In doing so, we want to continue to meet growing demands for sustainable production on the one hand and conform with regulations levied by the authorities on the other. The local authorities are the decisive entities here when it comes to preventing potential risks to the environment in commercial and industrial operations. The prime concerns in this respect are legally compliant wastewater treatment and disposal and the correct recycling of hazardous materials, such as paint, coatings and liquids used to clean stainless steel surfaces. A special team for occupational health, safety and environmental protection therefore organizes monthly meetings and draws up regular detailed reports on specific projects. Annually, we invest approximately 15 to 20% of the entire measures budget in the sustainable further development of our site.

Occupational health and safety key pillars

Besides optimizing production processes regarding the use of energy and other resources, occupational health and safety (OHS) is also a key pillar of our site policy. The Mexico plant has its own OHS team that identifies day-to-day risks at work and trains our personnel accordingly. This allows us to alert our employees to potential accident hazards that they can largely avoid themselves. The OHS team has introduced additional safety measures in the truck loading process or operation of cranes, for instance. With the help of automated procedures and emergency stop systems, our employees can now be given active protection against potential dangers within the operating radius. Finally, all executive managers receive safety instruction initiated by our plant at regular intervals. With this we sensitize them to these important topics; they then pass on their knowledge and awareness thereof to the workforce, manifesting what they have learned in the process.

Projects in the reporting period (selection)

New air compressor system

Compressed air is often required at various stages in production. It is also extremely energy-intensive to produce, however. We have now replaced our old setup from the 1970s with a modern air compressor system and in doing so cut energy consumption by 142 MWh per annum.

New exhaust system

We have installed a new exhaust system in our polishing/paint shop to protect our employees in Production. It ensures that even the tiniest paint and coating particles are safely filtered and extracted.

Location: São Paulo, Brazil
Employees: approx. 420
Total area: 62,000 m²
Production: 20,500 m²
Administration and development: 29,100 m²
Certifications and awards: ISO 9001, SEDEX, EcoVadis

» My personal commitment is to participate as part of a team in a company whose aim is to act responsibly for its stakeholders and future generations. «



Renato Zanotti,
plant manager of KHS Brazil



China

KHS in Asia: Suzhou

KHS has been represented in China since 2005. Its production site is located in Suzhou in the province of Jiangsu, around 100 kilometers west of Shanghai. In the near future we will move our production operations to a new plant in Kunshan, also in the Chinese Jiangsu province. The foundations were laid in 2020.

At the factory we concentrate on the manufacture of PET filling and packaging systems. We also offer a wide range of consultancy services for sustainable plastic container systems and solutions and provide all of the relevant sales services directly to the local market.

The production site attaches great importance to efficient, safe and resource-conserving production processes based on the KHS Group's quality and process specifications. In China a number of state requirements and regulations are also accounted for in the site's quality process. The tasks executed on site include regular safety checks and the compliant implementation of specifications; these are key prerequisites that allow us to supply the markets and regional customers accordingly.

Strengthening and establishing independent action in the long term

Sustainable economic and social activities on site are becoming increasingly relevant. Based on the established compliance guidelines, we have involved and trained our management in this early on. It is thus important to create procedures in daily production processes that aim to conserve resources and protect the environment and offer the greatest possible occupational health and safety at the various workstations. One of the flagship projects we have initiated here is our safety first campaign. It sensitizes our employees on site to potential hazards, enabling them to better identify possible causes of accident and make work processes safer through their own commitment. The campaign is based on the specifications and guidelines of the KHS Group.

The management meets once a month to discuss these issues and further improvements at the factory, particularly those regarding safety and protection of the environment. Here, we also regularly confer with company headquarters in Germany in order to draw their attention to local conditions for consideration in the sustainable strategic measures they devise.

This exchange is also promoted and assisted by annual meetings at a global level. In this way, all of the production sites are familiar with the respective current projects and local targets, with this dialog enabling them to identify common issues.

Projects in the reporting period

Safety first

The production site in Suzhou has been running its dedicated safety first program since 2017 and instructs existing and new employees in all aspects relevant to safety at work. This is done by fixed teams who hold appropriate training courses for greater occupational health and safety. The program focuses on safety in production, correct behavior in the event of a fire and correct documentation with the help of regular inspections of critical work areas (pressure vessels, pressure relief valves, etc.) for continuous improvement of the work processes and procedures at the plant.

Location: Suzhou, China
Employees: approx. 45
Total area: 4,700 m²
Production: 3,800 m²
Administration and developmen: 900 m²
Products:
Certifications and awards: EcoVadis

» I'm personally committed to continuing to actively drive our production processes and safety measures for our employees and the environment. Sustainability offers us a great opportunity to work together to shape the future of our production site in China. «



Detlef Prellberg,
plant manager at Suzhou



India

KHS in Asia: Ahmedabad

In 1997 KHS set up an Indian joint venture with a local mechanical engineering company. Since then we have been represented in Ahmedabad where we manufacture single machines and turnkey systems specifically for the regional markets. From here we also coordinate numerous service activities for Central Asia and implement entire projects for new filling and packaging lines.

Our success is based on our consistent adherence to quality steps throughout the entire production process and to occupational health and safety measures for our workforce. We have held the ISO 9001 quality standard since 2015 and have also been awarded the international ISO 14001 environmental standard and ISO 50001 energy certification. We focus on optimizing energy efficiency, water and electricity consumption and the air quality in our production shops and administrative offices. In the long term we aim to adopt a zero waste strategy, coupled with a continuous cut in our carbon emissions.

Regarding occupational health and safety, KHS India was successfully certified in 2018 and conforms with the ISO 45001 standard. We also perform further relevant audits such as SEDEX or EcoVadis as a matter of course.

Exploiting group strengths

Our own actions follow the mission statement of the entire corporate group. We aim to generate long-term, profitable growth that creates added value and can be sustained in the future. The key here is to constantly further develop our technical systems and services. We see this as a competitive advantage as both customers and the government are paying increasing attention to how industry and business commit to sustainability. This is why we regularly report on our company's social activities to the Indian government, for example. The hiring of qualified personnel and contributing to a resource-conserving circular economy on the market are special challenges to and decisive factors in the future alignment of our production site – and thus our success.

This enables us to adopt a flexible and solution-oriented approach to changing market demands. One example of this is what is known as the plastic ban issued by the Indian government that provides for state regulation of single-use PET containers. The challenge for us here is to offer alternative forms of packaging and shift our focus towards reuse and recycling. Thanks to further corporate developments in rPET and lightweighting, for instance, and in resource and energy savings in conjunction with our system solutions, we are able to also provide suitable local solutions to this problem.

High commitment to sustainability

Setting and consistently achieving its annual goals earned KHS India the VDMA Manufacturing Excellence Award in 2019 for its proven commitment to sustainability in the energy efficiency and conservation category. We are especially proud of this accolade as we competed and proved successful against more than 90 other German companies. This achievement also strengthens sustainable action within our own community, especially in the immediate vicinity of the factory. This is further supported by a dedicated local CSR team. We care for children in need through a number of education and health projects, support greening campaigns and conduct assessments for prospective IT students.

Projects in the reporting period

New water treatment plant

We can now treat and recycle wastewater from our production processes so effectively that we can use it to irrigate our plants, for instance. This saves us around 20,000 liters of fresh water per day.

Reducing bottle breakage and product loss

Our project introduced to prevent bottle breakage has reduced the amount of broken glass from 0.25% to 0.05% at a production rate of 24,000 bottles per hour. This system boosts line availability and reduces the risk of injury during operation.

Greening of the factory premises

The generally poor air quality continues to be a major health concern in India. We have thus planted up 70% of our factory premises in order to create a green space and clean up the air at our location. The air quality at our site is now noticeably better than that in the nearby city of Ahmedabad.

Location: Ahmedabad, state of Gujarat, India
Employees: approx. 260
Total area: 90,850 m²
Production: 17,805 m²
Administration and development: 16,950 m²
Products:
Certifications and awards:
 ISO 9001, ISO 14001, ISO 50001, ISO 45001, SEDEX, EcoVadis

» Sustainability has considerably helped us to improve our brand image and sharpen our competitive edge, especially on a regional level. Companies that incorporate sustainability into their decision-making processes will attract investor interest in the future, which is key to the long-term profitability of our capital goods business. «



Yatindra Sharma,
plant manager at KHS in Ahmedabad



Mexico

Act locally, compete globally

KHS has been represented by offices in Mexico since the 1970s. In 1992 KHS Mexicana was founded and production of our conveyor systems started at a factory in Zinacantepec in the state of Mexico. The production site has been continuously further developed: in 2005 the production shop was extended and in 2008 a new warehouse was built for the Maintenance Department. At the plant we now manage all local and regional services for our national and international customers in Mexico and turnkey projects for new filling and packaging systems.

Through ISO 9001 certification we have established a fixed quality management system standard in Mexico and also regularly and successfully take part in SEDEX and EcoVadis audits.

High level of commitment to corporate environmental protection

Here, we adhere to all regulations decreed by the state, are supported by KHS headquarters in Dortmund in working towards a sustainable economy and take part on a voluntary basis in the Mexico Clean Industry certification program. This is an initiative that aims to encourage industrial companies to show greater commitment to the environment by offering them economic incentives. We implement numerous measures from this program and in doing so aim to address social and ecological challenges above and beyond the legal standards. Our personnel on site continue to be sensitized to environmental issues and encouraged to act responsibly and sustainably.

As a result of this regional certification program we focus on operational environmental management, in particular by reusing wastewater processed at our own treatment plant, avoiding

hazardous scrap contaminated with pollutants and classifying waste and chemical products according to their environmental impact. Furthermore, we have installed a photovoltaic system for the environmentally-friendly generation of energy.

We regularly report on our measures to the local authorities and give our customers and suppliers an insight into our projects and progress.

Mexico Clean Industry

Mexico's Clean Industry certification program aims to protect the country's ecological balance by primarily focusing on industries that could have a potentially harmful impact on Mexico's environment.

Projects in the reporting period

Expansion of local standards

Our products manufactured locally and those imported from our factories outside Mexico comply with the Norma Oficial Mexicana (NOM) in relation to all tools driven by a motor. Besides operating an international quality management system according to ISO 9001, we also satisfy the requirements, regulations and standards of this certification. During the reporting period KHS has implemented two new NOMs: NOM 35 on psychosocial risks and NOM 36 on ergonomic risks, both of which constitute new rules and are mandatory.

Location: Zinacantepec, state of Mexico, Mexico
Employees: approx. 250
Total area: 75,000 m²
Production: 6,820 m²
 Administration and development: 2,600 m²
Products: conveyor systems
Certifications and awards:
 ISO 9001, SEDEX, EcoVadis

» For long-term success as a provider of reliable filling and packaging systems, we need our employees with their ideas and commitment. I want to motivate them in this regard every single day. «



Vicente Reyes,
plant manager of KHS in Zinacantepec



USA

Locally rooted and connected

KHS has been represented in the USA since 1971. In Waukesha in the state of Wisconsin we manufacture products and components for process engineering and filling and capping technology. Palletizing systems are also constructed on site. From 1971 to 2021 KHS also operated a production facility in Sarasota in the state of Florida. This primarily manufactured pouching machines and matching cartons. At the time of writing (May 3, 2021) the Sarasota plant had been sold.

Like all of the other production sites, as part of the KHS Group we attach great value to continuously reviewing our production processes to see where there is room for further optimization regarding the conservation of resources, protection of the environment and occupational health and safety. Our current focus is on the sustainable minimization of waste flows and on training our employees on site to help support this objective in the long term.

Quality requirements are based on international standards. Our factory is certified according to the ISO 9001 management system every year. We also undergo regular audits in accordance with SEDEX and EcoVadis.

Great social commitment

We also believe that our social commitment to our workforce is very important. This is the special challenge we face as a responsible employer, namely to hire well-trained employees and keep them loyal to the company, to offer them an attractive place of work and to take the changing aspects of the working world into account in conjunction with a person's work/life balance and family commitments. We have thus already introduced a minimum wage system at the site on our own initiative and are working to make this more attractive to our employees with the help of further sustainability measures.

Government regulation in the USA is traditionally restrained. We are seen as a free society where personal and corporate responsibilities are placed in the hands of the individual. This attitude is also strongly manifested in our style of management: it is quintessentially responsible for the direction our production site takes and how we adhere to the compliance guidelines necessary in this regard. We train responsible personnel at management level to this end on a regular basis. They have the task of also passing on what they

have learned to other employees. We use this setup to drive our company goals and place them on a broad footing. This includes, for example, continuously optimizing our production processes and building technology with a view to saving on energy and resources. Unlike at many other local companies, valuable resources such as paper, batteries, printer cartridges, aluminum, steel and electrical and chemical components are consistently recycled. As a large number of wooden pallets, crates and boards regularly accumulate chiefly by the transportation of materials to our plant, we have developed a recycling system for these (see Projects in the reporting period). Our production site also uses energy-efficient LED lighting and monitors energy consumption to see where this can be further optimized.

Firmly rooted and locally committed

We have been part of the immediate Waukesha community for decades and have direct ties to the local population. We are like a good neighbor and therefore feel it is our duty to help find solutions to urgent and critical local issues. We traditionally support numerous local projects on a charitable or voluntary basis – from disaster relief and medical support through food and clothing donations, educational projects and animal rescue to aid for veterans and concrete support for employees in financial need. We show our commitment in many different ways.

» We must all share responsibility and actively help to shape and protect our environment. Our legacy is, in no small part, to leave behind a better place for our children. «



John Turner,
plant manager of KHS in Waukesha

Projects in the reporting period

Wood recycling

In the course of a two-year project we have established a system for recycling wood. This was prompted by the sheer quantity of wooden crates our supplies are delivered in and that could not be recycled. In cooperation with the local Alliance Forest Products company we have created a system with which, as a result, we can recycle our waste wood to make new plywood.

Standort: Waukesha, USA
Employees: approx. 260
Total area: 54,252 m²
Production: 12,224 m²
Administration and development: 7,828 m²
Production output: 45 machines per year
Certifications and awards:
 ISO 9001, SEDEX, EcoVadis

Our key figures in black and white

From turnover figures to figures on power consumption: the facts and figures speak for themselves.

KHS opens its books and gives a broad overview of the most important key figures from the 2017/2018 reporting period. We have already achieved a great deal thanks to our energy and environmental guidelines and our fixed goals for 2025. At the same time, we are also aware of the challenges that lie ahead which, thanks to our committed employees worldwide, we are resolutely tackling.

Company profile

	Unit	2020	2019	2018
Sales (Salzgitter consolidation)	€m	1,131	1,260	1,161
EBIT (Salzgitter consolidation)	€m	20.3	35.3	21.4
Business locations	Number	40	40	40
Production sites	Number	11	11	11
Sold products	Number	694	770	778
Charitable financial donations (Germany)	T€	73	23	42

Employees

	Unit	2020	2019	2018
Number of employees (total workforce)	Number	5,085	5,149	5,081
Number of employees (total workforce in Germany)	Number	3,111	3,132	3,175
Freelance and temporary employment relationships	Proportion in %	1	4	n.s.
Fixed-term employment relationships	Proportion in %	8	8	n.s.

Employee loyalty

Average years of service for the company	Years	18	18	13
Fluctuation	Rate	2	1	n.s.

	Unit	2020	2019	2018
Personnel development				
Average age of the core workforce	Years	46	46	44
Employees under 30 years old	Number	511	540	859
30 to 50 years old	Number	2,561	2,570	2,553
Older than 50	Number	1,668	1,694	1,669

Employees

	Unit	2020	2019	2018
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Diversity and equality

Number of women in the total workforce	Proportion in %	14	14	14
Number of women at management level ¹	Proportion in %	10	8	n.s.
Employees with disabilities	Proportion in %	5	5	n.s.
Nationalities	Number	79	80	81

Basic training

Apprentices and trainees	Number	253	249	328
Average age of apprentices and trainees	Years	23	22	23

	Unit	2020	2019	2018
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Further training

Trained employees	Number	2,634	2,077	1,542
Expenditure for further training (e.g. KHS Campus, individual courses, etc.)	T€	286	673	779
In-house further training courses	Number	436	465	776
Personnel development measures	Number	6,216	4,127	3,014

¹ management level includes managing directors, division heads and unit and departmental heads.

Occupational health and safety

	Unit	2020	2019	2018
Production sites with a certified OHS management system (according to ISO 45001 or OHSAS 18001 in previous years) ¹	Proportion in %	55	55	55
Reportable accidents at work ² (German plants)	Number	40	35	40
Accident frequency ³ (German plants)	Number/1m working hours	10.32	7.53	8.49
Sickness rate ⁴ (German plants)	Proportion in %	7.22	7.28	7.23
Sickness rate ⁵ (German plants)	Proportion in %	4.19	4.52	4.84

	Unit	2020	2019	2018
Distinction between all accidents by type and severity				
of which resulting in death (German plants)	Number	0	0	0
of which reportable accidents ² (German plants)	Number	40	35	40
of which accidents with an absence of > 1 ² (German plants)	Number	9	12	11
Industrial accidents with 0 days of absence ⁶ (German plants)		245	338	178

¹ proportion of all production sites.

² industrial and commuting accidents resulting in more than three days' absence from work.

³ reportable accidents at work per one million working hours.

⁴ paid and unpaid hours of sickness in % of target hours per company (in Germany); wage earners; Jan–Dec.

⁵ paid and unpaid hours of sickness in % of target hours per company (in Germany); pay scale employees; Jan–Dec.

⁶ data according to accident log entries.

Corporate environmental protection

	Unit	2020	2019	2018
Production sites with a certified environmental management system (according to ISO 14001)	Proportion in %	55	55	55
Production sites with a certified energy management system (according to ISO 50001)	Proportion in %	45	45	45

Energy and climate protection in production

	Unit	2020	2019	2018
Absolute energy consumption ^{1,2} (German plants)	MWh	39,956	42,999	43,977

Distinction by type of energy

	Unit	2020	2019	2018
of which heating oil (German plants)	Proportion in %	5.5	4.3	5.9
of which natural gas (German plants)	Proportion in %	48.1	47.1	46.3
of which electricity (German plants)	Proportion in %	32.1	33.3	31.5

	Unit	2020	2019	2018
of which fuel (gasoline/diesel) (German plants)	Proportion in %	14.3	15.3	16.2
of which from renewable sources (green electricity) (German plants)	Proportion in %	32.1	33.3	31.5
Specific heating consumption ² (German plants)	Heating consumption per day heated and temperature difference in °C [kWh/d/ΔT]	1,641.3	1,587.3	1,709.8
Specific electricity consumption ² (German plants)	MWh/€m turnover	21.4	21.9	21.5
Specific electricity consumption (German plants)	kWh/hour worked	3.3	3.0	2.7
Specific electricity consumption (German plants)	kWh/m ²	81.9	82.0	81.2
Temperature-adjusted heating consumption ² (German plants)	MWh/€m turnover	32.7	33.1	33.7

	Unit	2020	2019	2018
Temperature-adjusted heating consumption (German plants)	kWh/hour worked	5.1	4.6	4.2
Temperature-adjusted heating consumption (German plants)	kWh/m ²	125	124.2	127.1

Resource conservation

Absolute water consumption (German plants)	m ³	22,386	36,378	39,847
Specific water consumption ² (German plants)	m ³ /€m turnover	37.4	55.6	61.9
Specific water consumption (German plants)	l/hour worked	5.8	7.7	7.7

	Unit	2020	2019	2018
Specific water consumption (German plants)	l/m ²	142.8	208.4	233.4
Total amount of waste (German plants)	t	2,242	2,987	3,254
Amount of hazardous waste (German plants)	Proportion in %	1.0	3.2	3.9
Specific amount of waste (German plants)	t/€m turnover	3.7	4.6	5.1
Specific amount of waste (German plants)	kg/hour worked	0.6	0.6	0.6
Specific amount of waste (German plants)	kg/m ²	14.3	17.1	19.1

	Unit	2020	2019	2018
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Business trips

Fleet vehicles (Germany)	Number	75	76	82
Plug-in hybrids/electric vehicles (Germany)	Proportion in %	2.67	2.63	2.44
Specific fuel consumption (Germany)	l/100 km	5.1	5.1	5.3
Flights ³ (Germany)	tCO ₂ e	1,748	4,535	n.s.
With own vehicle ⁴ (Germany)	km	113,375	228,367	203,961

¹ incl. gas consumption for non-heating purposes and excl. electricity consumption for tenants.

² the value for 2018 has been subsequently corrected and thus differs from the value in the 2017/18 report.

³ DEFRA is the British government's Department for Environment, Food and Rural Affairs. The factors and calculations for conversion are specific to the United Kingdom (<http://www.defra.gov.uk>).

⁴ border traffic not accounted for here.

About the KHS sustainability report

The following voluntary KHS sustainability report provides information for the 2019/2020 reporting period on the strategic alignment of the KHS Group according to the principles of sustainable economy and the corresponding goals, approaches and measures.

The content of the report is divided into four main chapters: 1) strategy and governance, 2) product responsibility, 3) operational ecology and 4) social activities. These chapters outline the key economic, social and ecological challenges faced and management approaches adopted by KHS.

Aim of the sustainability report

In order to make progress and develop further, a quantifiable, transparent and thus verifiable sustainability performance is essential. This is why, in our KHS sustainability report, we outline our goals and their current state of implementation and highlight the outstanding measures in place and commitment shown at our various production sites. With this, the report provides new impetus for discussions with our employees, customers and business partners, further stakeholders and the interested public.

Our voluntary report is based on the standards of the [Global Reporting Initiative \(GRI\)](#) and further requirements for good sustainability reporting ([CSR RuG](#), [German Sustainability Code](#) and [IÖW/future ranking criteria](#)). We thus aim to measure the report against the specified requirements, to further develop it and enable the information herein to be compared to that of any other market participant.

Defining the report content

When selecting the topics to be included in the report, we focused on what is important and on the central expectations of our stakeholders. The basic framework was structured in alignment with GRI standards, the [sustainable development goals of the United Nations \(UN SDGs\)](#) and legal reporting obligations (CSR-RuG). The various issues were assessed with a view to their significance for KHS and assigned to the fields of activity where KHS initiates or (further) develops appropriate management approaches.

We are constantly developing our report further. In order to be able to gauge our current status after three sustainability reports, an analysis of the report was performed with external support that shows us where we need to go into (greater) detail in our presentation in the report. We have been able to make some of the identified potential improvements in this report. Here, in the reporting period greater attention was paid in particular to the presentation of our key fields of activity and further key figures identified. In the future we aim to reinforce these strategic positions by involving our stakeholders and to translate this into an operative sustainability program.

Reporting period and frequency

This KHS sustainability report refers to business years 2019/2020 (January 1, 2019, to December 31, 2020) and is the fourth consecutive voluntary report to have been issued. The editorial deadline was May 3, 2021. KHS publishes a sustainability report every two years.

Reporting framework

The statements and information given in this report always refer to the entire company, including all subsidiaries of the KHS Group subject to operative control (see the About KHS company profile). The reported measures and key figures focus on our production sites in Germany. KHS' subsidiaries outside Germany are described in their own profiles for the first time and are to be further integrated into the report in the future. Participations and companies outside the KHS Group consolidation are not the subject matter of this report.

Restrictions in the scope of this report are noted in the appropriate places and result from the current state of data availability. All of our business unit locations are to be successively included in the report and are working to produce the necessary data basis.



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Editorial notes

For reasons of better legibility this report does not use gender-specific formulations. Should references to persons only be made in the masculine form, these equally apply to all genders.

We would like to thank the following for their support with technical issues and the content of the fourth KHS sustainability report (in alphabetical order):

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