Pure competence in air.



Sustainability report 2022



PREAMBLE

SCHAKO KG is a family-owned business that has been successfully operating in the building ventilation and air-conditioning sector for decades.

Extensive know-how has been developed in this field, and numerous patents are testament to the company's innovative strength. We are committed to successfully and sustainably operate and further develop the company for the sake of our employees, customers, suppliers and stakeholders.

The purpose of the Sustainability Report is to highlight our advancements across various areas and to provide motivation for continued successful sustainability development.



Dr. Rainer Müller Managing Director SCHAKO KG

Dr. Marcus Müller Managing Director SCHAKO KG





FUNDAMENTALS

PAGE 8-9

The reports starts with an introduction of SCHAKO KG to provide insights into the corporate activities.

PAGE 10-19

This part outlines the corporate strategy followed thus far and explores the new goals set.

PAGE 20-25

SCHAKO KG is committed to a number of goals enabling the company to make a meaningful impact in line with the UN's *Sustainable Development Goals (SDGs).*





SUSTAINABILITY STRATEGY

SUSTAINABILITY

GOALS

PAGE 26-35

PRODUCTION & INFRASTRUCTURE

Sustainability measures that have been implemented in the past are outlined in the Production and Infrastructure section. Waste management is presented and the carbon footprint is disclosed here in addition. Finally, the section addresses the digital transformation at SCHAKO KG.

PRODUCT

DEVELOPMENT

PAGE 36-39

The Development department at SCHAKO KG implements multiple sustainability projects. These include the preparation of environmental product declarations covering the entire product life cycle.

PRODUCTS

PAGE 40-43

Some SCHAKO KG products are already characterized by particularly sustainable properties today. These are presented in the Products section.







PURCHASING

SOCIAL

ABOUT THE

REPORT

PAGE 44-45

The Purchasing department is also involved in sustainability aspects: This section presents the sustainability goals to be implemented in the future, and it outlines how sustainable Purchasing already is today.

PAGE 46-56

PAGE 57-59

This section presents the social aspects covered in the Sustainability *Report, including compliance guidelines, training and human* resources projects to the benefit of sustainability.

We would like to provide a brief outlook on future activities in the

field of sustainability in the report's last section.







Fundamentals AN OVERVIEW OF SCHAKO KG

The customer is at the centre of everything we do. It is not for nothing that SCHAKO KG has been successful for over 90 years. Our varied production programme in the field of air distribution, air regulation, fire and noise protection as well as smoke extraction enables us to meet individual customer requirements. It is not without reason that our products have won LüKK awards.





Wherever there are people – i.e. lots of people – you will find SCHAKO KG. For example, in the MILANEO shopping centre in Stuttgart, the largest and most modern shopping centre in southwestern Germany. This is where perfect ventilation and air-conditioning is of utmost importance. After all, only people who feel good while shopping can enjoy themselves at any time and without worries. Because air is our life. Everywhere.



Fundamentals AN OVERVIEW OF SCHAKO KG



Three SCHAKO KG air diffusers that everyone knows: The PIL ceiling swirl diffuser generates strong induction with a pulsating air jet. The DQJ is still the best swirl diffuser on the market even today. The SCHAKO WDA long throw nozzle achieves maximum throw at low noise levels. Swirl discs can be used to achieve a comfortable air flow even near it.

PIL	
SCHAKO PROFILE	HISTORY
LOCATIONS Kolbingen, Messkirch (Germany)	 1928 Ferdinand Schad founds the company 1960 Production of first ventilation grilles 1970 Commissioning of the flow laboratory
San Mateo de Gállego (Spain)	1970 Commissioning of the Training Centre
Törökbálint (Hungary)	1995 Production plant in Spain starts
PORTFOLIO	operations
Fire protection Smoke extraction	2004 Production site in Hungary is
Filter diffusers	opened
Air-water systems	2006 The fire protection laboratory is inaugurated
Air diffusers	
Air dampers	2012- Integration of several technology and
Ventilation grille	2022 market segment leaders into the SCHAKO
Control units	Group
Controls	国際国
Sound insulation, etc.	More information is available on
	our website:
	schako.com

Sustainability strategy STRATEGIC POSITIONING THUS FAR

The topic of **sustainability** has dominated the political discourse over the last couple of years. There are many literary sources that can help us consider what sustainability really means. Sustainable development is defined as a development that fulfils present needs (intergenerational equity) without depriving future generations of their livelihood. The term itself was coined in forestry and specifically refers to the principle of limiting the wood harvest to the quantity that can grow back.



CORPORATE STRATEGY

SCHAKO KG's corporate strategy contains the following statements on sustainability:

Ecological aspects and sustainability are important issues for the company, which are implemented accordingly. SCHAKO KG makes specific investments to support young talent and promotes know-how transfer and dialog with research,

science and competent authorities in order to comply with the exacting standards.

Thanks to its extraordinary competence, service mindset as well as unique and simple solutions providing maximum added value, SCHAKO KG is THE contact for everything ventilation, air conditioning, fire protection and smoke extraction technology.



Sustainability strategy STRATEGIC POSITIONING THUS FAR



The superordinate goal is to secure the future and success of SCHAKO KG in the long term.

For this purpose, the owner keeps most financial profits generated in the company to strengthen and expand the resources relevant to its success. Sustainable business management within this context entails handling entrusted assets in such a way that they are preserved for the next generation.

Its entrepreneurial consistency, strategic continuity and financial stability enable make the company transparent and reliable for partners and employees alike.



We stand for **technology and innovation.** Our focus in improving existing and developing new innovative products and systems is as follows:

- Resource conservation and environmental protection
- Energy efficiency increase
- Air quality and comfort improvement
- Compliance with the most exacting hygiene requirements
- Improvement of personal safety and structural integrity
- Acoustic and aesthetic optimization of our products
- Simplification of installation and commissioning

We take our social and environmental responsibility seriously, which is reflected in our corporate policy and all our business activities. Our product and service policy as well as our logistics are designed to conserve resources and protect the environment.

Sustainability strategy STRATEGIC POSITIONING THUS FAR

SCHAKO KG's QUMB Department (Quality and Environmental Management) is responsible for sustainability in organizational terms. The department sets goals for the upcoming year together with the management on an annual basis as part of regular management reviews, and their achievement is tracked throughout the year.



CO₂ FROM ENERGY CONSUMPTION

The characteristic figure 'CO₂ from energy consumption' refers to the quantity of CO₂ generated as a result of our production processes. The target for 2022 was set at 1,680 t, a decrease of approx. 4 % over the actual value achieved in 2021.

While this has so far been applicable to the Kolbingen and Messkirch plants, this goal is extended across the entire SCHAKO KG with this Sustainability Report.

Of course, SCHAKO KG is not a detached entity but embedded in society, obligated to observe legislation and political framework conditions, including compliance with any goals set in this context. For example, the Climate Protection Act sets clear goals for the reduction of greenhouse gas emissions.

Sustainability strategy NEW GOALS



A ruling by the German Federal Constitutional Court has led to the first amendment of the Federal Climate Protection Act (published on August 18, 2021).

It specifies more ambitious goals for greenhouse gas emission reductions compared to 1990 as follows:

at least 65 % by 2030,

at least 88 % by 2040,

achievement of net zero greenhouse gas emissions by 2045,

negative greenhouse gas emissions are to be achieved after 2050.



REDUCING EMISSIONS

This clearly defines the goal for 2030.

An initial challenge was to determine the emissions generated in 1990. Since reliable data CO₂ emission data for SCHAKO KG from before 2009 is not available, we have used the data collected between 2009 and today to calculate the value for 1990.

This calculation is visualized in the curve on the following page.





CO₂ emissions, retrograde calculation with data from 2009 onwards

The curve shows the development of CO₂ emissions since 1990 up to 2022. The reference data for Germany refers to the industrial manufacturing sector.

The German Federal Environmental Agency publishes this data:

https://www.umweltbundesamt.de/themen/klima-energie/treibhausgas-emissionen

The green curve shows CO₂ emissions from purchased energy. Since data collection for SCHAKO KG started in 2009, the retrograde calculation from 1990- 2009 is purely fictitious. The SCHAKO KG values from 1990- 2009 have been derived from the data for German industrial corporations and downscaled for SCHAKO KG based on 2009 values.

The CO₂ emission reduction, based on the assumption made in the diagram above and the entire amount of energy purchased by SCHAKO KG, amounts to 6500 t of CO₂ in 1990 to 2205 t CO₂ in 2022.

This corresponds to a reduction by approximately 66 % since 1990. Therefore, CO₂ emissions are projected to be reduced by 65 % by 2030 as compared to 1990. This means that SCHAKO has already met the German government's 2030 goals in 2022.

However, the following figure also illustrates how great an effort is still required to achieve the 2045 goals.

Since the government's specifications are clearly defined, SCHAKO KG's goal is as follows:

CO₂ emissions must be net zero by 2045, which is why SCHAKO KG must continuously reduce its emissions until then. SCHAKO KG emitted 2205 t of CO₂ in 2022. This corresponds to annual emission reductions of around 100 t of CO₂.



- The extreme 2014 reduction in emissions was due to an investment to *a = modernize the machinery used.
- *b = The significant reduction in emissions at the Messkirch plant was achieved by installing a photovoltaic system.
- *c = The significant reduction in emissions at the Kolbingen plant was achieved by installing a photovoltaic system.

The graph illustrates the emission reduction required by 2045.

The total emissions across all SCHAKO KG locations is shown in green. The broken lines show the individual plants and their emission reduction requirements by 2045. All values refer to indirect emissions resulting from combustion processes for the provision of electricity, heat or steam.

The data used here exclusively refers to SCOPE 2 of the CO₂ footprint; the data situation does not allow any other approach here.

SCOPE 1 is being recorded through this report as the corresponding data was not recorded in the past. More information on the CO₂ footprint (p.33) is available in the Production & infrastructure chapter starting on page 26.



Dr. Mueller, sustainability is an important part of public discourse these days. What does sustainability mean to you personally?

Its main impact on me, like everyone else, is higher energy prices. Being a Swabian, I have used the resources available to me in a sustainable manner. I am not a vegetarian, but I don't eat meat very often. I believe I have found a good balance in this respect. I have also cut down on travels, especially during the Covid crisis. Quite a number of business trips is not really necessary and can be replaced by video conferencing. But I won't stop travelling altogether as it brings people together so they can exchange ideas and learn from each other. A popular proverb says "Life is a journey. Make the

best of it." And we cannot ignore the fact that travel broadens horizons.

What impact does sustainability awareness have on the construction sector?

As a manufacturer of ventilation and air-conditioning components and systems, SCHAKO KG supplies technical building equipment and, thus, is only a cog in the wheel that is the construction industry. Hence, we are not really in a position to speak for the entire industry. But what we see is a trend towards wood as a construction material. And there are efforts to reduce footprints through compact construction methods, and to recycle and reuse materials. Certification systems for sustainable construction such as DGNB

(German Sustainable Construction Council), Leed (Leadership in Energy and Environmental Design – USA) or Breeam (Building Research Establishment Environmental Assessment Methodology - UK) have been around for years and are playing an increasingly important role in our perception. However, they are not yet mandatory in many cases. Even though I mentioned these three systems in a single sentence, we realize that there are significant differences between these three systems. The status quo of processes, materials used and resources required must be reviewed on a frequent basis and in the spirit of continuous sustainability development – even more frequently than it is already happening. Advantages due to new developments and/or new

processes must be exploited consistently, especially if they can help save resources.

How will sustainable development change SCHAKO KG in the future? What is the main motivation in this context?

Sustainable development in the context of product development takes into account what I mentioned earlier, the trend towards building with wood, for example. Before Covid we saw a trend towards less and less air, which has reversed itself since then. Providing energy-efficient systems

requires the ability to offer product and system development solutions that, for example, allow systems to operate on demand and depending the number of people in a given room. Smart systems (bus

systems, room sensors and variable volumetric flow controllers) can make a significant contribution to this by adapting the air supply for different zones to the user's behaviour in these zones and still achieve energy savings through simultaneity factors. SCHAKO and the respective system partners should establish system solutions based on such "holistic" concepts and further developments, which will increase demand for capacity in this area. However, energy savings are not the sole driving force behind this - it is also driven by anticipatory assessments of future requirements. In this context, corporate development means identifying major consumers of energy first and to then work out solutions to reduce their consumption or to supply them by tapping into different sources. We

have now installed photovoltaic systems at most of our production locations. At our Heudorf site, we also have most of our heating requirements met by a local heating pipeline coming from a neighbouring biogas plant.





Statement by Dipl.-Ing. Michael Stoz on sustainability in the industry:

It is a truism that sustainability is trying to get a foothold in the construction sector. It has not yet succeeded in doing so. Ecologically sensible approaches and CO₂ balances are the diametrical opposite of yield as well as lean industrial workflows and production processes.

Many of these processes have been developed over centuries and are often based on optimized ancient craft techniques.

As these processes were developed, the issue of energy, which has traditionally been inexpensive, mostly took a low priority.

Both customers and architects have been focusing on sustainable

products, thus acting as multipliers to initiate change in the construction industry. Very few companies do this on their own initiative (not just in the construction industry). Profitability understandably and rightfully remains the top priority here as a survival strategy.

DEVELOPMENT

Legislators must initiate measures such as increased CO₂ taxation to encourage company efforts to optimize power engineering in such a way that minimum fossil fuels are used. Naturally, manufacturers of cement, concrete or bricks and tiles are particularly affected due to their burning and baking processes. In more positive terms: There is huge leverage for energy optimization here. This topic is

constantly on the agenda of all CEOs and managing directors, which is slowly leading to changes in the industry. Many companies are trying to take charge of their electricity supply (solar power) or the conversion of electricity into heat and refrigeration (solar/wind power, hydroelectric plants, heat pumps, etc.). The company's roof area offers great opportunities for generating renewable energy – solar energy in this case. However, it is important to take a close look at how much electricity needs to be purchased in addition and whether the annualized electricity generation justifies the associated investments.

LOCAL PARTNERSHIPS

Furthermore, transport routes must be examined for optimization potential. We as consumers and



planners need to appreciate companies that have their plants close to the installation locations, i.e. plants located in Germany or at least in nearby European countries. That is not just because of the trust factor in terms of delivery and contract fulfilment, but also because of CO₂ footprint minimization efforts in logistics. Whether electric or diesel: Transport requires and devours valuable raw materials and energy. Truck production, road construction, forklift truck provision, etc. Therefore, planners need to ask exactly how much vertical integration is implemented at any given site and how many parts are purchased from and supplied by vendors with production facilities located far away. Where do the employees live? Do they have a regional

commute or do they come from a city 1.5 hours away? Do most of them come in their own car for flexibility, etc.?

PREPARATION

As of now, us architects are not very familiar with asking the right questions and making inquiries properly. But that is going to change. In this respect, the sector would be well-advised to start prepare for this, because the changes in

energy generation, production processes and vertical integration takes a lot more time than changing the way we ask questions and the way we think.

Last but not least, architects must question themselves as to how well they are trained with regard to ecological processes and how much they do to apply these processes rather than just demanding their implementation from the industry from a sort of spectator perspective. The good news is that architects are a little higher up the food chain, and we work for builders with an increasingly ecological mindset. Ecology is not the exception –

everyone involved in the construction process should consider it odd not to include ecological aspects from the outset.

We need to get it done now.



GOALS FOR CONSTAINABLE DEVELOPMENT

Sustainable management is a tradition in our company that looks back on a history of more than 90 years. With this report, we also align our sustainability strategy with the global Sustainable Development Goals (SDGs) set forth in the 2030 Agenda for Sustainable Development.

As SCHAKO KG is not in a position to make a significant impact with regard to all the defined SDGs, SCHAKO KG focuses its efforts on the goals achievable within the context of the company's business activities.

More information on the **Sustainable Development Goals** is available on the following website:

LINK: https://17ziele.de/

In order to increase the focus on sustainability aspects in the future, SCHAKO KG has not only adjusted the CO₂ saving goals but the company also takes a stand on the UN's SDGs and announces the following goals:

GOAL 3: HEALTH AND WELLBEING

The coronavirus pandemic has shown just how important fresh and clean air is indoors. We ensure safety and wellbeing indoors with our air purification and air distribution products.

However, it is not just our products that help achieve this goal. SCHAKO KG is committed to an ongoing effort of promoting the health and well-being of its employees as well. SCHAKO KG wants to continuously improve its employees' wellbeing with a wide variety of measures and cooperation.

GOAL 4: HIGH-QUALITY TRAINING/EDUCATION

For over 70 years, it has been SCHAKO KG's mission to offer high-quality training and education in multiple specialist areas to young people. SCHAKO KG offers both industrial and commercial specialist training opportunities. Here, the youngsters are prepared for their professional lives in a highly relevant dual system consisting of theory and practice phases.

And we also offer dual courses of study in cooperation with the DHBW

(Baden-Wuerttemberg Cooperative State University), thus enabling students to combine their theoretical knowledge with field exposure. SCHAKO KG intends to keep up its activities in the field of training and education. Participation in vocational training fairs has become the norm. They are intended to provide young people with an opportunity to get to know the company.

SCHAKO KG wants to continue it efforts to promote young people's training and education in the future. Therefore, we regularly update the vocational training and courses of study we offer based on the requirements of today's professional world and the company.

Professional development of qualified experts is closely related to training and education. SCHAKO KG's talent management gives employees an opportunity to take advantage of professional development opportunities.







GOAL 5: GENDER EQUALITY

The equality of all genders is clearly set forth in SCHAKO KG's compliance rules. They state that no person must be discriminated against due to their race, ethnicity, gender, religion, ideology, disability, age or sexual identity. This equally applies to all employees and business partners. Violations will be sanctioned accordingly.

SCHAKO KG promotes a good work-life balance. Part-time work models and flexible hours are the status quo in this context. The lockdowns and strict hygiene regulations in the workplace have also furthered the implementation of remote work wherever possible, and we will continue to facilitate it in a targeted manner in the future.

GOAL 8: DECENT WORK AND

ECONOMIC GROWTH

SCHAKO KG has always worked with numerous regional suppliers. This does not only offer the advantage of greater availability, it also ensures that their working conditions comply with German standards and regulations. Our aim is to select our suppliers even more carefully in the future with regard to their sustainability and working conditions.

We currently require supplier statements on their sustainability. This is done as part of supplier evaluations and, thus, is communicated to all suppliers. A very flexible working hours model enables all employees within the company to balance their professional and private lives. And part-time and remote work provide them with even more flexibility. The corporate policy is geared towards healthy growth.





GOAL 9: INDUSTRY, INNOVATION AND

Innovation takes place in the SCHAKO KG's development department. Energy conservation and efficient use of resources is a pivotal factor in new product developments. We aim to make a lasting positive impact on the infrastructure with our products. Using SCHAKO KG products guarantees a continuous supply of fresh air in public buildings while energy consumption is kept as low as possible through demand-driven supply.

GOAL 11: SUSTAINABLE CITIES AND

COMMUNITIES

As a manufacturer of components and systems for ventilation and air-conditioning technology, we can make a significant contribution to reducing the energy consumption of buildings through our optimized products. In Germany, buildings account for approx. 35 % of the total energy consumption and, in doing so, cause about 30 % of the total CO₂ emissions. The greenest energy is energy not consumed.





INDUSTRY,

INNOVATION AND

INFRASTRUCTURE



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Production & infrastructure KOLBINGEN AND MESSKIRCH PLANTS

SUSTAINABILITY IN PRODUCTION

Being a leading global manufacturer of components and systems for ventilation, fire protection, sound insulation and air conditioning technology, SCHAKO KG has always been a pioneer of sustainable production and sustainable products. The production sites in Germany were certified according to ISO 14001, the leading international standard for environmental



Werk Kolbingen

management systems, in 2013. The company's quality management system was certified according to ISO 9001 even earlier in 1994.

A number of important steps towards sustainability have already been taken in the past, the most important of which are briefly presented below.



ILLUMINATION

According to the International Energy Agency (IEA/UNEP, 2014), illumination accounts for 15 % of global electricity consumption. Switching to LED technology allowed the German SCHAKO plants to reduce electricity consumption by 225,000 kWh per year.

Modern LED lighting does not just save energy – it also has a longer service life as compared to conventional luminaires. This extended service life also reduces the frequency of luminaire replacement, which means that significantly fewer spent luminaires need to be disposed of.

Unlike fluorescent lights, LEDs are also free of any harmful substances.





PHOTOVOLTAIC SYSTEM

The rooftops of commercial and industrial buildings offer enormous potential for installing photovoltaic systems.

Photovoltaic systems have been installed on the roofs of all German plants as a result of the sustainability strategy and climate neutrality efforts.



The Kolbingen and Heudorf plants now achieve significantly energy savings to the tune of 800,000 kWh per year. And another 750,000 kWh are fed into the grid.

COATING PLANT

The entire powder surface coating application in the Kolbingen plant was replaced by a fast colour change powder coating booth complete with robotics, controller and a cyclone as well as conveyor technology with all associated data interfaces. The new coating system has increased the surface quality, resulting in both increased uniformity of coating thicknesses and reduced powder consumption.





Production & infrastructure KOLBINGEN AND MESSKIRCH PLANTS

SDGS IN PRODUCTION

There are many sustainability aspects at SCHAKO KG. They are reflected in the production plants, energyefficient products and suppliers. Production in two German and two international SCHAKO KG plants conserves energy and resources using state-of-the-art technology without loosing sight of economic aspects.

SCHAKO KG continuously optimizes workflows and processes in line with LEAN aspects in order to reliably meet all requirements concerning environmental protection as well as occupational health and safety. The "LEAN Production" projects assess production lines based on value stream design/analysis. This results in the elimination of wastage. Not only does this refer to excess production, idle times, transport, stock and production errors, but it also prevents the waste of energy such as heat, compressed air and electricity as well as materials and auxiliaries.

Investments further increase energy efficiency and the degree of automation while further improving our employees' working conditions at the same time.







Ms. Civelek, as a Department Head, what is your association with the term sustainability? When I think of sustainability, I think of short commutes in order to minimise the use of resources. I also make sure to buy regional food to support local businesses, protect the environment and avoid long transport routes.

Where do you see potential to increase sustainability in production at SCHAKO KG?

There are a few more things we could optimize, such as the further advancement of process automation and an even more efficient use of resources in sheet metal processing. We are on the right track here, but we need to continuously optimize the processes further and implement them consistently. And our packaging could become even more sustainable. Then I see additional potential in workstation design. Further improvements in this area could increase the employees' wellbeing and health.

How do you think employees can make their work more sustainable?

To actively increase their level of sustainability, employees must be

further sensitized so as to build awareness of the various sustainability issues. This also includes any communication among employees regarding activities across the company. This could be managed by way of regular newsletters on various topics, whether digital or analog.

Production & infrastructure

RESOURCES/WASTE



WASTE MANAGEMENT

SCHAKO KG has always acted responsibly in disposing its waste. Properly sorted disposal and collection in appropriate containers is a matter of course.

An independent institute regularly audits the separate collection rate within the company. This audit takes place annually in the plants located in Germany. The separate collection rate is the percentage of all properly sorted waste that is disposed of. This rate was 97 % for the German plants in 2022.



Separate collection rate SCHAKO plants in Germany

97 % SEPARATE COLLECTION RATE IN 2022

Production & infrastructure





DISPOSAL

The composition of waste disposed of in 2022 is shown in the diagram below. In terms of quantity, waste from punching processes is the largest share. That is due to SCHAKO KG's field of business. The main components of many products is made of punched or sheet metal parts. Therefore, it is impossible to avoid most of this waste. The raw material use in production is optimized as much as possible to produce minimum waste and in order to act sustainably and economically at the same time. Another large share of the disposed mass is various "mixtures of concrete, bricks, tiles and ceramics", which originated from a conversion project undertaken in the laboratory. This portion will not accrue every year and, therefore, represents a one-off disposal category.

Generally speaking, waste management should focus on waste from punching processes in order to minimize the amount of waste generated there.



Production & infrastructure RESOURCES/CO₂ FOOTPRINT

SCHAKO KG wants to map its CO₂ emissions in a more differentiated and comprehensive manner in the future, which is why the SCHAKO KG CO₂ footprint will be calculated based on the GHG (Greenhouse Gas Protocol) standards in the future.

(https://ghgprotocol.org/companies-and-organizations)

It differentiates three SCOPES of CO₂ emissions.

The SCOPES are defined as follows:



SCOPE 1:

Direct emissions originating from sources directly controlled by the company, e.g.

- Combustion in stationary plants (e.g. heating)
- Mobile combustion (e.g. vehicle fleet)
- Leakages (e.g. air conditioning systems)

SCOPE 2:

Indirect emissions resulting from combustion processes for the provision of electricity, heat or steam.

SCOPE 3:

Emissions caused but not controlled by the company, e.g.

- Upstream processes along the value chain such as purchased goods and services, employee mobility or waste generation
- Downstream processes along the value chain, such as logistics, use, further processing and disposal of products sold

For the purposes of this report, SCHAKO KG exclusively refers to SCOPE 1 and 2 as reliable data from the 2022 reporting period is available for these scopes.

SCOPE 3 is currently not considered as it would require a significant effort to reliably map the data required for this.



RESOURCES/CO₂ footprint

SCHAKO KG CO₂ FOOTPRINT (ALL SCHAKO KG PLANTS)

SCOPE	CATEGORY	CO2 2022	CO2 2021	CO2 2020
SCOPE 1 Direct emissions from sources controlled by the company.				
	Vehicle fleet	348	316	270
TOTAL	Σ in tonnes CO ₂	348	316	270
SCOPE 2 Indirect emissions resulting from combustion for the provision of electricity, heat, steam, etc.				
	Purchased power	1 270	1 755	1 961
	Heating oil	683	751	804
	Gas	252	113	52
TOTAL	Σ in tonnes CO ₂	2 206	2 619	2 817
TOTAL	∑ in tonnes CO₂	2 556	2 935	3 087

The overall CO₂ footprint indicates a positive trend in emissions between 2020 and 2022, and SCOPE 2 has also seen positive developments between 2020 and 2022. The emissions caused by purchased energy have decreased significantly. Among other things, this is due to the photovoltaic systems installed. The SCOPE 1 level is stable across the board.

Some potential for further emission reductions has been identified here. The coming years will show the extent to which the coronavirus pandemic has influenced the CO₂ footprint.



Production & infrastructure RESOURCES/DIGITAL TRANSFORMATION

SCHAKO KG's IT Department, hereinafter referred to as IT for short, assumes responsibility for more sustainability along the lines of currently 3 major building blocks:

RESPONSIBLE HANDLING OF HARDWARE PROVIDED

SCHAKO KG has a closed-loop IT lifecycle management for end devices. The required hardware is sourced from responsible partners (e.g. Dell with its zero-emission strategy) and its useful life in the company ends with the hardware being introduced into a certified remarketing cycle.

Our internal processes actively prevent the formation of any shadow IT within the organization and ensure that no device pools form at workstations. Our intention here is to actively prevent the accumulation of unused but valuable hardware resources in our company.

SUSTAINABLE IT SERVICE PROVISION

The entire SCHAKO KG IT is based on the provision of an up-to-date IT service that supports maintenance in line with manufacturer specifications. This aspiration arises from both IT security needs and sustainability efforts. This enables us to provision our systems in an efficient and resource-conserving manner. We aim to actively reduce our CO₂ footprint and make data centre operations as efficient as possible with our cloud-first approach.



Production & infrastructure RESOURCES/DIGITAL TRANSFORMATION





SCHAKO KG IT AS A DIGITAL BUSINESS ENABLER

The SCHAKO KG IT is the single point of contact for digital solutions in our organization.

We apply our skills across our specialist departments in our role as an internal point of contact, and we pursue our mission of advancing existing or developing new processes involving digital tools and to actively support their implementation.

Our ambition is to get rid of silos and to drive innovation, both in terms of technology and work procedures used.

Digitization is a key element of achieving greater sustainability in our company.



Product development DEVELOPING SUSTAINABLY

THE DEVELOPMENT DEPARTMENT

The main responsibility of SCHAKO KG's Development department is the development of new, innovative products. The continuous improvement in quality of life and air quality in non-residential buildings forms

the cornerstone of SCHAKO KG products. Furthermore, existing products are continuously developed further. One reason for this is to meet changing stakeholder expectations associated with making existing products more sustainable and using resources more efficiently.



The Development department closely collaborates with various universities and institutions in such matters. This is to ensure that SCHAKO KG continuously operates at the cutting edge of technology.

REQUIREMENTS

SCHAKO KG is in close contact with potential customers and suppliers from the very early stages of development. This ensures an efficient use of available capacities. In addition, the coordination with customers ensures that changing requirements are consistently met and, as a result, that the products can be successfully placed on the market. We also look into the process feasibility during the development phase so as to ensure that further and new developments entail process optimizations, enabling the elimination of most monotonous work steps through automated processes.

EFFICIENCY

Among other things, the SCHAKO KG Development department is also involved in efforts to increase the energy efficiency of ventilation systems. There is a continuous placement of new products on the market, and revisions of the existing product portfolio are carried out regularly. The objective here is to achieve aerodynamic ventilation component design in order to prevent significant (inefficient) pressure loss in ventilation ducts. In addition, the noise emissions of products are measured in our in-house acoustics laboratory. This is to ensure that all installed SCHAKO KG products consistently meet the customer requirements and guarantee a fresh indoor climate without attracting any attention.

PURE COMPETENCE IN AIR.

Product development DEVELOPING SUSTAINABLY





SCHAKO KG Development also works on fresh ideas that will improve the air quality in different kinds of rooms in the interest of human health. Furthermore, new products are continuously being developed to facilitate fire protection and smoke extraction. Fire protection and smoke extraction dampers are installed in ventilation ducts and provide protection in case of smoke formation or fire. For this purpose, products are thoroughly tested at the in-house Fire Protection Research Centre before being submitted for certification by an independent institute.

ENVIRONMENTAL PRODUCT DECLARATION

SCHAKO KG Development has set itself a goal of mapping the ecological impact of products throughout their entire life cycle in the initial EPDs (Environmental Product Declarations) drafted in 2021. The impact of products are mapped from a holistic point of view from 'cradle to grave' or 'cradle to cradle' for this purpose prior to their verification by an independent institute.

The data collection effort required for creating EPDs is enormous. SCHAKO KG is happy to take this effort in order to provide customers with a scientifically sound impression of its products.

SCHAKO KG thus sets the course for downstream building certification undertaken by agencies such as DGNB or LEED.

A potential analysis is conducted during the EPD data collection phase to identify ecologically questionable materials and to revise inefficient work steps.

Product development DEVELOPING SUSTAINABLY

OUTLOOK

The Development department's objective for the future is to have Environmental Product Declarations for more SCHAKO KG product groups in order to enable the determination of ecological footprints across the entire product portfolio within the framework of the 'cradle to cradle' and 'cradle to grave' principle in the medium term.

SCHAKO KG has already collaborated with an institute for this purpose to develop a tool that can be used to partly automate the creation of future EPDs.



The assumption of a holistic point of view on the ecological impact of production, use and recycling thus puts SCHAKO KG in a position to generate key figures for a sound ecological efficiency analysis. This in turn enables us to derive resource optimization and energy consumption reduction measures.





Jochen Keim working with SCHAKO KG as a master student trainee former Instrumentation Engineer in Development

Mr. Keim, sustainability is a very broad term, how would you define it?

As you said, it is a very broad term. For me personally it essentially means the ability to leave a proper social, economic and ecological system behind for the next generation through foresight and corresponding actions.

I believe that companies have a particular responsibility in this context to reconsider the way they use scarce resources and to implement changes in their daily operations accordingly by assuming a sustainable point of view on resource availability.

What is the impact of sustainable development in new product designs?

New product developments are the future and the very heart of the company. They have impacts on the entire value chain as well as on the life cycles including product recycling.

Development sets the course for sustainability and resource conservation right from the onset. Companies can make the biggest difference (at low cost) in the way they select materials, and they can significantly improve the efficiency of downstream manufacturing processes at an early stage in this context.

How does the increasing sustainability awareness manifest itself in your daily work?

The supervision of EPD preparation is a perfect example here. I get detailed insights into the use of materials in the process and can directly influence their use during the development phase. The use of potentially harmful and environmentally incompatible materials can thus be avoided.

As for the social aspects of sustainability, I always make sure to maintain a healthy work-life balance. I am happy to be in a position where I can plan my resources and working hours according to my preferences within certain limits, and the same applies to project planning.

Products SUSTAINABILITY OF SCHAKO PRODUCTS

SCHAKO KG produces and distributes components and systems for ventilation and air-conditioning. From ventilation to volumetric flow control, fire protection, sound insulation as well as bus and control systems – SCHAKO KG has a portfolio that ensures healthy, demand-driven, comfortable and safe ambient air. SCHAKO products provide particular added value for energy-efficient and sustainable buildings. The advantages of some of these components are as follows:

DISA CEILING INDUCTION DIFFUSER

SCHAKO DISA-601 is one of our pioneering products.

The active induction units DISA-601 are used for the energyefficient and comfortable discharge of high thermal loads. Ceiling induction diffusers combine the flow characteristics of air diffusers with the energetic advantages of load discharge via water-based heat exchangers, allowing them to remove high thermal loads from the room while keeping the



hygienically required air exchange low. Apart from energy savings, the induction diffusers are distinguished by their low installation and maintenance costs.

Products DISA CEILING INDUCTION DIFFUSER



The table clearly shows the savings potential of DISA as compared to conventional ventilation systems. A conventional system is shown in the left column:

Air	Air	Water
ΔT = 6 K	ΔT = 6	ΔT = 4 K
Q = 1 600 W	Q = 202 W	Q = 1 398 W
Ø = 280 mm	Ø = 100 mm	
v = 3,61 m/s	v = 3,57 m/s	
V = 800m³/h	V = 101m³⁄h	

It requires a pipe diameter of 280 mm to achieve a temperature difference of 6 Kelvin and a cooling power of Q = 1600 W.

The DISA, in the right column, only requires a tube diameter of approx. 100 mm to achieve the same cooling power.

- The DISA enables a reduction in the air volume, thus minimizing energy consumption.
- Since the duct cross-sections are smaller than in systems working with only air, the floor height can be reduced, thus unlocking considerable savings across the entire construction project.

DISA at work (ORACLE, Baden-Daettwil / Switzerland)



Products MINERAL WOOL SILENCERS

Mineral wool silencers are used in sound absorption in ventilation and airconditioning systems. The baffles used are characterized by nozzle-shaped frame profiles. They significantly reduce pressure losses as compared with conventional baffles. This unlocks significant energy savings during system operation.



Furthermore, SCHAKO KG makes sure to select the materials used in such a way that insulation mats are as environmentally friendly as possible.

Our silencers thus provide a low-noise working environment that will noticeably contribute to reducing stress levels.



Conventional baffle (rectangular) Relatively high pressure loss.

SCHAKO KG nozzle profile

Significantly lower pressure loss due the profile shape. This significantly lowers operational costs.



Detailed view of SCHAKO nozzle profile

Products EASYBUS – BUS AND CONTROL SYSTEM



SCHAKO KG's bus and control system EasyBus can, among other things, be used to activate and monitor mechanical and electrical fire dampers with 24 VDC or 230 VAC with spring return actuators, smoke extraction dampers, smoke detectors and volumetric flow controllers with 0(2)-10 V activation or air diffusers with 2/3-point motorised drives.



The following points characterize the bus system in terms of sustainability:

- Significantly less resources are consumed during installation because data transmission and power are provided through a single cable. And, as opposed to conventional systems, decentralized network supply and signal amplifiers are not required here.
- The demand-driven system pressure saves energy and costs as every room in the building can be individually controlled via a centralized control unit. This ensures that currently unused rooms are not supplied, thus saving energy.

The calculation example on the right shows the resources saved as compared to a conventional installation.

	Conventional installation	Installation with data bus
Cable lengths	1,500 m	400 m
Conductor cross-section	1.5 mm²	2.5 mm²
input voltage	230 VAC	230 VAC
Total load	500 W	500 W
Total resistance	141.52 Ohm	111.52 Ohm
Power loss	94.35 W	24.31 W

Procurement creating sustainable strategies

The Purchasing department is responsible for material procurement and supplier management. It faced great challenges in the last three years. Disrupted supply chains, raw material shortages with the associated price shocks and insufficient transport capacities made its work extremely difficult. The main focus was therefore on timely provision of the right quantity and quality of materials required.

The existing supplier network is evaluated on an annual basis. Sustainability aspects have been a part of supplier self-assessments and evaluations since 2021. The objective is not just to evaluate the ability of existing suppliers to serve SCHAKO KG, but also to review their sustainability strategy.

The work of traditional purchasing has changed as a result of the increasing dynamism in today's business world. Sustainability is an important factor here. There is a significant overlap of economical purchasing and sustainable development. Therefore, strategic purchasing is involved in development projects right from the onset to ensure that standard parts are given preference over excessively specified parts.

In the future, Purchasing aims to build a stronger focus on the following UN Sustainable Development Goals (SDGs) and their specifications through supplier evaluation and selection:

- SDG 8: Decent work and economic growth
- SDG 9: Industry, innovation and infrastructure

Purchasing is developing a high-quality, reliable, sustainable and resilient purchasing infrastructure and culture in this context. Among other things, this includes a healthy mix of regional, national and international suppliers.





REGIONAL/LOCAL SUPPORT

SCHAKO KG has participated in the 'Kolbinger Adventszauber' fair in December 2022 with a sales booth and sold specially produced decorative products there. All proceeds went to the Kolbingen kindergarten and enabled us to donate quite a significant amount to the kindergarten.

"We are delighted to have raised this amount that allows

us to support the kindergarten and bring joy to the children. We would also like to express our commitment to the town of Kolbingen and its community with this campaign." This was the conclusion drawn by Dr. Marcus Müller, Managing Director SCHAKO KG, who came up with the idea for this fundraiser, and the dedicated team of employees who organized the campaign.



JOB CYCLES AT SCHAKO KG

There has been an option of leasing a brand new bicycle via the JOBRAD (job cycle) platform since 2018 in order to offer employees a practical option to improve their health and wellbeing.

The advantages are quite obvious: In addition to the resulting cost savings for employees, they are also motivated to take care of their own health by using these cycles.

Since its introduction, 37 employees at the Kolbingen and Messkirch sites have signed up for JOBRAD. All employees are entitled to avail the offer at any time.

Social commitment COMPLIANCE AT SCHAKO KG

The compliance guidelines are specified by the SCHAKO Group in order to establish a clearly defined culture within the company. The following section summarizes these guidelines.

SCHAKO KG, part of the SCHAKO Group, adheres to specified compliance guidelines to provide an ethical and legal compass for each and every employee.





These behavioural requirements require all employees to be fair, respectful and trustworthy with respect to all of their activities. Conflicts of interest between business and private matters must be avoided. Furthermore, the Company's reputation must be respected and promoted, and no undue advantages must be created for employees or third parties.

The regulations on occupational safety, environmental protection and privacy must be observed.

Any violation of the Compliance Guidelines must be reported to the Managing Director or the Compliance Officer.



Social commitment COMPLIANCE AT SCHAKO KG



Supervisors are required to act in line with the company's strategic focus. Employees may only be evaluated with respect to their performance. Supervisors must implement the guidelines in their respective area of responsibility.

EQUALITY

The guidelines also cover equality. No person must be discriminated against due to their race, ethnicity, gender, religion, ideology, disability, age or sexual identity. This applies across all parts of the company.



BRIBERY AND CORRUPTION

Offering personal benefits to officials as a reward for performing or refraining from the performance of an official act is strictly prohibited. This also applies to employees or representatives of domestic or international companies with regard to unlawful personal benefits. All acts of bribery are prohibited. Supporting unlawful acts that others are involved in is also strictly prohibited.



Social commitment COMPLIANCE AT SCHAKO KG

CONFLICTS OF INTEREST

Private interests must be strictly separated from the interests of the company. Even apparent conflicts of interest must be avoided.

In this context, particular care must be taken to ensure that contracts are not awarded to associated persons. Furthermore, any secondary employment with competitors or business partners must be avoided. Ownership of any stakes in competitor companies must be reported to the Compliance Officer.



COMBATING MONEY LAUNDERING

The company only cooperates with reputable business partners. All employees must comply with anti money laundering legislation. Any suspicions must be reported to Accounting.

COOPERATION WITH CUSTOMERS AND SUPPLIERS

The company expects its employees,

suppliers and customers to comply with all applicable laws, to refrain from engaging in corruption, to respect human rights, to protect the health and safety of all employees and to comply with any relevant national legislation and international standards covering occupational safety, environmental protection and privacy. The aforementioned points must also be complied with along the company's supply chain.



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INVITATIONS, GIFTS AND OTHER PERSONAL BENEFITS

Employees must generally not demand, accept promises of or actual personal benefits for themselves or for any associated persons. Employees may accept personal benefits such as invitations or gifts only if there is no apparent expectation of receiving anything in return.

The legal requirements for gifts must be complied with (§4 (5) of the German Income Tax Act [EStG]).

OCCUPATIONAL SAFETY, ENVIRONMENTAL PROTECTION AND PRIVACY

The observance of all applicable laws and regulations on occupational safety and environmental protection is mandatory for all employees. They must be implemented in the workplace and the work area.

Personal data may only be collected, used and stored in accordance with applicable privacy legislation. Any data related to the company or business transactions must be treated confidentially.



DONATIONS

The company makes monetary or goods donations to charitable causes from time to time.

COMPLIANCE VIOLATIONS

Violations may have consequences such as a warning notice, termination or criminal charges depending on their severity.

Social commitment TRAINING / PROFESSIONAL DEVELOPMENT

Training is a priority at SCHAKO KG. A new batch of specialists has been trained every year since the 1950s.

Current training opportunities cover the following areas:



TRAINING PROFESSIONS

By trade: Industrial mechanic Tool mechanic for punching technology Tool mechanic specialising in machine technology (vocational college)

Business administration: Industrial clerk Industrial clerk with additional qualification IT specialist for system integration

Technical: Technical product designer

DUAL COURSES OF STUDY

Bachelor of Engineering (B.Eng.) Course of study: Mechanical Engineering Field of study: Design and development Production Engineering | Production and Management

Bachelor of Engineering (B.Eng.) Course of study: Mechanical Engineering Field of study: Supply and energy management

Bachelor of Arts (B.A.) Course of study: Industry International Business Technical Management

Bachelor of Science (B.Sc.) Course of study: Business Information Technology

SCHAKO KG tries to attract new young people every year to offer them an opportunity to complete a vocational training.

SCHAKO KG makes no distinction as to the gender any given person feels they belong to. Therefore, the abovementioned job descriptions are open to all persons (male/female/non-binary).



PROFESSIONAL DEVELOPMENT

SCHAKO KG is continuously developing its training / personnel development offerings. Regular seminars and instruction sessions for the approx. 60 officers are currently organized in a talent development and management effort. In addition, the individual training requirements of each and every employee are determined within the framework of annual employee development reviews. This is intended to promote individualized personnel development.



The 'Effective Employee Management' series of training sessions, which was carried out in cooperation with two external seminar hosts, has been one of the larger projects in this context. The aim of this series of seminars was to help managers perform their duties better. SCHAKO KG's Human Capital Management digital employee portal 'ONE-HCM' was used to support this effort.

ONE-HCM will be used to focus education management efforts throughout the company in the future. The online portal provides employees with a personal seminar administration panel and an online schedule.





Hello Lorena, you have just completed your training to become an industrial clerk. What is your take on sustainability? My idea of sustainability is that we all should only consume an amount of resources that can be regrown and that the available resources should never be wasted. Also, we should always act in the best interest of the environment and strive to preserve it.

Which aspects of your training do you consider sustainable?

There are quite a few points that I feel are sustainable. One thing is that all trainees have been provided with tablets. These tablets were provided to us in a joint effort by the vocational school and the company. SCHAKO KG has given financial support to the school to facilitate paperless classes. Now we have access to all learning material via an online platform. We can also use various software packages to take digital notes and draft write-ups digitally. Different classes also teach us how to use resources responsibly in practice, e.g., how to avoid waste as much as possible. I feel that SCHAKO KG has a sustainable practice of providing loaned laptops to trainees, which means that they do not need to purchase a new laptop for every trainee. Thus, these laptops are utilized much better and resources for additional equipment are saved. We also try to advertise online on our social media channels as much as possible to save unnecessary advertising materials.

Which aspects of your training still need some work to become more sustainable in your opinion? There is indeed some potential for improvement

in some areas. The training course should start raising awareness of sustainability as early as possible. That can be implemented through various projects. Sustainability should be addressed in greater detail, both in the classroom and across the company. Another idea would be to

introduce public transport tickets subsidized by the employer. That would motivate many trainees to use mass transit more frequently. Another thing that bothers me is paper consumption. Many paper-based processes could be digitized. Unfortunately, I have noticed this issue in multiple areas.



HEALTH AND WELLBEING

This is where we go above and beyond the standards. German and European legislators specify numerous preventive measures. We have actively implemented the following additional measures:

HEALTH AND LEADERSHIP

One of the pivotal variables affecting human health in the workplace is the leadership behaviour. The SCHAKO KG Management has decided to train all managers in line with a uniform mission statement and methodology. Human Resources was tasked with the development of a suitable concept.



This concept has been presented by now. The first yearly cycle started in March 2022. The sustainability milestones are as follows:

- The perception of people's wishes is a core competency (listening, asking questions, overall perception).
- The current state of the employees perceptive faculties and ability to implement instructions and demands is determined prior to giving such instructions and making associated demands. Exerting unnecessary pressure is to be avoided wherever possible. This minimizes human 'wear and tear' in both supervisors and employees.
- The purpose of any conversation is to convey a message. The intention of strengthening the very being we are dealing with is another equally important aspect. The individuality, inner poise and unrestricted breathing spaces of all persons are protected. Sustainable interlocution at SCHAKO KG is to be construed as an invitation to be healthy, upright and self-confident. In this context, sustainability means the promotion of inner strength during working hours. Unnecessary pressure and evasive behaviour in private life can be significantly reduced in this way.

Social commitment SDGS IN HUMAN RESSOURCES

HEALTH PROTECTION LEGISLATION AND INTERNAL COORDINATION

The protection of human health required by law involves a wide variety of stakeholders and measures. The employers' liability insurance association and corporate medical services are examples of this. In this context, sustainable management means:

- Underpinning the central aspects and multiplying the effects of health protection legislation that form the basis for actions in this area. Measures that are effective in one regulatory field should also be effective in other regulatory fields.
- The strain on the musculoskeletal system and the use of height-adjustable desks in offices is an example of this. There is a plan to offer suitable physical exercise sessions to be carried out in short activity breaks during working hours and within the scope of the corporate health management program.
- The partners are comprehensively and proactively involved in our corporate development. This enables our external partners to gain a holistic view of the company. Statutory measures are not just implemented but are upgraded with that little added value. A supplementary agreement with the company's medical service, which can provide easy and quick access to occupational psychology counselling if and when required, is an example of this. The employer's proactive framework agreement thus gives the company physician more leeway in such matters. In addition, it puts internal stakeholders such as the Works Council and the Management in a position to offer and quickly implement sustainable solutions as relevant risks arise.





GENDER EQUALITY

Gender equality is an integral part of SCHAKO KG's compliance rules. All employment contracts makes observing these rules mandatory for anyone working with the company. This includes permanent employees, temporary workers, student interns and anyone right up to the upper management.

External specialists such as occupational psychologists or lawyers are consulted in case of gross violations.

Gender equality is an integral part of the equality framework based on the German constitution and the European Charter of Human Rights.







Mr. Nestel, what motivated SCHAKO KG to write a sustainability report and what are the preconditions for doing so? My bachelor thesis within the scope of my Business Administration studies at DHBW Villingen-Schwenningen was the starting point. I developed a concept outlining the basic requirements for creating a sustainability report in this context. This allowed me to familiarize myself with the requirements that are already being implemented by some companies.

Media coverage of sustainability has given rise to numerous guidelines and concepts that have developed in parallel over the past decades. In Germany, we have the German Sustainability Code and the Institute for Ecological Economy Research, both of which assess reports and publish an annual ranking. However, the UN's Sustainable Development Goals are most certainly the best-known concept. They describe how to achieve a sustainable future by pursuing 17 goals covering all kinds of sustainability issues. That is why SCHAKO KG has used the UN goals as a basis for preparing its first report.

Sustainability is often criticized, too; greenwashing in particular is subject to intense debate. How do you prevent this to retain credibility?

There is always a possibility of losing credibility if sustainability issues are not presented based on hard facts backed up by data. Vague assertions without any proof to underpin them are often made in such cases. Any serious attempt to practice sustainability is backed up by data and hard facts. Of course it is difficult to obtain characteristic figures for everything, especially for social factors that cannot be easily measured. It makes sense to use the guidelines of official bodies such as the German Sustainability Code or the GRI in order to produce sensible work in this context.

Mr. Nestel, what sustainabilityrelated developments do you expect in the future? What will be the top priority in the years to come?

The next few years will be all about how to generate the required energy with the least amount of CO₂ emissions. Companies such as SCHAKO KG will be forced to think about how they can generate their own energy from alternative energy sources, or whether there are any feasible options for sourcing carbon-neutral energy.

SCHAKO

I think that decentralized systems are the only real alternative for making progress in this regard. The hard part will be to set up the decentralized systems as efficiently and reliably as possible and not to neglect the sustainability aspect in the process. After all, if every company has to construct their own power plant, enormous amounts of resources will be consumed due to inefficiencies that do not occur in centralized supply systems, and the question of reliability in supply solutions based on alternative energy sources remains in this scenario, too.

One thing that is not going to

change is that companies cannot perform their activities without using energy and resources. Companies need to find a balance between alternative energy supply solutions and profitable business activities.



About the report scope and purpose of the report

This report is intended to provide information on sustainability aspects the company has developed in recent years to all SCHAKO KG stakeholders. SCHAKO KG has always considered sustainability a high priority. This was determined during the research and preparatory work conducted in order to create this report. Saving resources does not just have ecological advantages. Such efforts have a long track record of providing economic advantages, too. With this report, SCHAKO KG wants to step up its efforts on the way towards a sustainable future, address the issue in a transparent way and proactively put it into focus.

Theis is the first version of this report published by SCHAKO KG. It covers the period from 2022-01-01 to 2022-12-31. The data it is based on has been collected in the period between October 2021 to January 2023.

All business units of SCHAKO KG have been considered and included in the report. The Sustainable Development Goals (SDGs) formed the basis for creating the content herein. Not all SDGs could be considered in detail as not all seventeen goals are applicable to our company. The ISO 14001 and ISO 9001 certifications have provided a good data basis in addition to the SDGs.

OUTLOOK FOR THE YEARS AHEAD

Since this is the first Sustainability Report that SCHAKO KG has prepared, guiding concepts such as the Global Reporting Initiative (GRI) or the German Sustainability Code have not yet been implemented.

The report is considered a starting block for sustainability at SCHAKO KG. It is intended to put the topic into focus and show all stakeholders that SCHAKO KG is committed to sustainable development.

Upon completion of this report, plans for its revision should be made immediately. This report will provide the basis for planning measures and projects that will pave the way for SCHAKO KG to become an increasingly sustainable enterprise.

About the report PICTURE CREDITS



Page	Figure	Author/photographer	Source	Page	Figure	Author/photographer	Source
4	General Management	SCHAKO KG	SCHAKO KG	27	Coating plant 2	SCHAKO KG	SCHAKO KG
5	Circle wood pedestal; (508952002)	Vanitjan	stock.adobe.de	28	Concrete floor	DifferR	stock.adobe.de
5	Eco friendly; (494188432)	Parradee	stock.adobe.de	29	Portrait A. Civelek	SCHAKO KG	SCHAKO KG
5	Net Zero; (504185213)	Naiyana	stock.adobe.de	30	Recyclable waste (169328427)	NicoElNino	stock.adobe.de
6	531620681	metamorworks	stock.adobe.de	30	Separate collection rate	SCHAKO KG	SCHAKO KG
6	Creative light bulb (359379801)	Pixels Hunter	stock.adobe.de	31	Disposal 2022	SCHAKO KG	SCHAKO KG
6	DQJ swirl diffuser	SCHAKO KG	SCHAKO KG	32	Carbon Neutral	blacksalmon	stock.adobe.de
7	Green concept with (501923504)	lumerb	stock.adobe.de	33	CO2 footprint	SCHAKO KG	SCHAKO KG
7	network community (48083232)	vegefox.com	stock.adobe.de	33	Businessman working (497777582)	everythingpossible	stock.adobe.de
7	La psicologia (273858053)	Polonio Video	stock.adobe.de	34	Futuristic global (486686383)	Blue Planet Studio	stock.adobe.de
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9	Product images	SCHAKO KG	SCHAKO KG	37	Lab 2	SCHAKO KG	SCHAKO KG
10	Green Business Strategy (58334236)	Olivier Le Moal	stock.adobe.de	38	Hand turns (388033226)	focussed	stock.adobe.de
10	Young businessmen (319381105)	Yuttana Studio	stock.adobe.de	38	Business casual (375314838)	Freedomz	stock.adobe.de
11	Technology abstract (210451608)	NicoElNino	stock.adobe.de	39	Portrait J.Keim	SCHAKO KG	SCHAKO KG
12	Quality improve (108953431)	jirsak	stock.adobe.de	40	Complete DISA view	SCHAKO KG	SCHAKO KG
13	Lower CO2 (418185545)	NicoElNino	stock.adobe.de	41	DISA example calculation table	SCHAKO KG	SCHAKO KG
13	Business goal (277811428)	tadamichi	stock.adobe.de	41	DISA at work	SCHAKO KG	SCHAKO KG
14	Retrograde CO2 calculation	SCHAKO KG	SCHAKO KG	42	Complete MWS view	SCHAKO KG	SCHAKO KG
15	CO2 emissions, reduction	SCHAKO KG	SCHAKO KG	43	Complete EasyBus module	SCHAKO KG	SCHAKO KG
16	Portrait R. Müller	SCHAKO KG	SCHAKO KG	43	EasyBus calculation table	SCHAKO KG	SCHAKO KG
16, 18, 29, 39, 52, 58	A lot of people (272786103)	Andrii Yalanskyi	stock.adobe.de	43	SCHAKO baffle profile	SCHAKO KG	SCHAKO KG
18	Portrait M. Stotz	SCHAKO KG	SCHAKO KG	44	Logistics chain (92137243)	jirsak	stock.adobe.de
20	SDG_combi_RGB		//17ziele.de/downloads.html	45	Kindergarten donation	SCHAKO KG	SCHAKO KG
21, 38, 55	SDG-icon-DE-03		//17ziele.de/downloads.html	46	Compliance and (102598588)	annuar83	stock.adobe.de
21, 51	SDG-icon-DE-04		//17ziele.de/downloads.html	46	Compliance concept (263696117)	WrightStudio	stock.adobe.de
22, 46	SDG-icon-DE-05		//17ziele.de/downloads.html	47	3d Waage (129000675)	fotomek	stock.adobe.de
22, 44, 46	SDG-icon-DE-08		//17ziele.de/downloads.html	48	Interessenskonflikt (51910483)	Jürgen Priewe	stock.adobe.de
23, 28, 44	SDG-icon-DE-09		//17ziele.de/downloads.html	48	stakeholder (369395859)	CrazyCloud	stock.adobe.de
23, 28	SDG-icon-DE-11		//17ziele.de/downloads.html	49	Multicolored Safety (322681864)	Rapeepat	stock.adobe.de
24, 28, 38	SDG-icon-DE-12		//17ziele.de/downloads.html	50	education (112418280)	vegefox.com	stock.adobe.de
25	SDG-icon-DE-13		//17ziele.de/downloads.html	51	Talent Management (339631665)	wladimir1804	stock.adobe.de
25	Environmental (473238762)	metamorworks	stock.adobe.de	51	technical drawing (169669953)	arbalest	stock.adobe.de
26	Kolbingen plant	SCHAKO KG	SCHAKO KG	53	Portrait L. Keul	SCHAKO KG	SCHAKO KG
26	Lathe in production	SCHAKO KG	SCHAKO KG	54	Customer relationship (504186930)	The KonG	stock.adobe.de
26	Renewable Energy (508059717)	Pcess609	stock.adobe.de		Close up african (245080272)	fizkes	stock.adobe.de
27	Kolbingen solar power	SCHAKO KG	SCHAKO KG	56	Gender Equality (468908610)	Andrey Popov	stock.adobe.de
27	Coating plant 1	SCHAKO KG	SCHAKO KG	58	Portrait J. Nestel	SCHAKO KG	SCHAKO KG

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Note on grammatical gender:

We have decided not to use gender-neutral language in some cases to improve legibility. Gender-specific terms used in this report generally apply to all genders.