My ancestors, Friedrich Hahne and Christian Wilkening, founded their company in Hanover, Germany, in 1907. At the time, they couldn’t have guessed that it would one day be one of the most internationally famous office furniture manufacturers. With their unbending desire for quality in terms of materials and craftsmanship, they laid the cornerstone for our pole position in the premium office and conference furniture segment. It was my father, Fritz Hahne, who turned Wilkhahn into a pioneering manufacturer of modern furniture design, based on the principles of the Bauhaus and Ulm University of Design.

As a family-run company, over the decades, we have fostered a corporate culture that included ethical dimensions of design very early on. Fairness, profit sharing and ecological responsibility make us a multi-award-winning pioneer in terms of sustainability too. These characteristics manifest themselves in the architecture of the plant’s buildings, which were designed by Frei Otto and Thomas Herzog and others. They are reflected in the way we engage with one another and are all about working with people for people. And they’re apparent in the furniture that provides enduring responses to issues that will be relevant in tomorrow’s world.

In the era of digital transformation, the focus of modern office concepts is something that has been motivating us to develop furniture for decades. What’s required are attractive items of furniture that are fit for purpose, allow people to identify with the place they work in and foster collaboration and improve feelings of well-being. After all, there’s nothing like good design to make people feel appreciated. What better way could there be to provide for the future than if co-workers enjoy and are enthusiastic about their jobs? Our goal to combine durable quality, pioneering functionality and timeless design makes us successful the world over. International markets account for almost 70 percent of our business.

We believe that good design shouldn’t reveal the effort exerted to translate a complex task into the simplest solution conceivable for the user. Which is why we relish the opportunity to work closely with researchers and architects all over the world. We, our customers and partners are proud of the feeling that we’re giving the world something that’s new and sustainably better. In the competition for talented people, these characteristics of office-environment design are becoming increasingly crucial in order to put across brand and corporate values each and every day – and to convey reliability and a sense of belonging too. Consistent design makes Wilkhahn furniture an interesting option, not just financially but ecologically too, because well designed objects will continue to be used. As many of our classic items of furniture prove every day.

Dr. Jochen Hahne
President
Wilkhahn supports the UN Global Compact

Wilkhahn is committed to sustainable development objectives throughout all areas of its business.

In December 2007, Wilkhahn joined the UN Global Compact, making the policy of responsible management mandatory for all areas of the company. Wilkhahn perceives corporate responsibility as a management philosophy which strives to strike an acceptable balance between the requirements of the various stakeholders.

The ten principles of the UN Global Compact

Human rights
Principle 1: Companies are to support and observe international human rights within their spheres of influence and Principle 2: ensure that they are not guilty of complicity in infringing human rights.

Labour standards
Principle 3: Businesses are to uphold the freedom of association and the effective recognition of the right to collective bargaining as well as under: Principle 4: eradicating all forms of forced labour, Principle 5: stopping child labour and Principle 6: eliminating discrimination when recruiting and employing people.

Environmental protection
Principle 7: Businesses are to support a precautionary approach to environmental problems, Principle 8: adopting initiatives to generate a greater sense of responsibility for the environment and Principle 9: encouraging the development and spread of eco-friendly technologies.

Fighting corruption
Principle 10: Businesses should stand up against corruption in all its forms, including extortion and bribery.
A family-run company with a global reputation

Wilkhahn was founded in 1907. The self-financed, family-run company is privately owned. The chairperson of the works council has a seat and vote on the Wilkhahn supervisory board. The company’s purpose is to develop, manufacture and market advanced, high-quality and superbly designed furniture and furnishing solutions for attractive workspaces to encourage well-being, collaboration and allow people to identify with their company.

The brand stands for first-class product quality, highly innovative ergonomics and pioneering design. Under the banner of improving life sustainably, people-friendly design, durable and ecologically responsible product concepts and services make exemplary contributions to preserving resources and have won acclaim across the world. We concentrate on the following furnishing areas:

- Seating for the workplace
- Conference, seminar and innovation spaces
- Informal communications and recreational areas such as cafeterias, lounges and areas in the middle of rooms.

In 2019, 497 co-workers generated sales of EUR 84.8 million, almost 70 per cent of which stemmed from international markets. The company has production facilities at the headquarters in Bad Münder, Germany, as well as in Poznań, Poland and Sydney, Australia. Annual production capacity at headquarters is 150,000 office task chairs, 120,000 visitor and conference chairs, as well as 30,000 tables and table systems. Worldwide sales are made via the company’s own subsidiaries and sales agencies. Retailers, export and license partners are also part of the mix.

As a result, Wilkhahn is present on all continents.

Boosting the health and well-being of our customers, but also of our co-workers enjoys high priority.

Wilkhahn doesn’t just stand for ergonomically excellent and safe products, but also for implementing stringent health and safety practices and programs to boost co-worker health that go above and beyond the level required by law. Page 20

Environmental responsibility starts with the design and development process.

As part of the ecological design guidelines, the concept development of a product also includes life cycle analyses. One of Wilkhahn’s maxims is to increase the useful life and utility value of products in order to improve efficiencies regarding the energy and materials expended to make them. Page 6

Family-run company – managed by the 3rd generation of the family
Design rooted in modernism
People’s needs take center stage
Identity, collaboration and well-being are fostered
Wilkhahn design makes an internationally recognized contribution to sustainability
Furniture specialties: Seating for the workplace, conference and collaboration spaces, information communication areas
Exports account for 70% of business on all continents
Three company production sites: Bad Münder, Germany, Poznań, Poland, Sydney, Australia

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Corporate policy

As one of the world’s leading manufacturers of high-quality office and contract furniture, we take a holistic approach to quality every day. Customers appreciate our excellent products, motivated co-workers and value-driven management style, the goal of which is to improve people’s lives sustainably. Encouraging good health and a feeling of well-being is our key corporate goal, whether it’s through the products we offer our customers or through the design of our own workplace.

The combination of business success, socio-ecological responsibility and involvement in cultural activities makes us an exemplary company whose values are shared by co-workers worldwide and which we’re continuing to develop.

Environmental responsibility starts at the product development stage, during which production to a maximum level of energy and material efficiency is factored in from the get go. Timeless design, consistent quality and perfect functionality enable high-quality products with a high usage value. Products that are repair friendly, durable and easy to disassemble constitute an effective use of resources.

Energy-efficient and material-saving production. Keeping emissions and water consumption low, reducing hazardous waste and recycling waste materials are steps that are kind to the environment and help ensure Wilkhahn is successful by preventing waste. Page 22

Sustainability in the supply chain. Our environmental and social responsibility doesn’t stop at the gates to our own factories. If within its power, Wilkhahn requires and promotes fair and safe working conditions and processes that don’t harm the environment. Frequent assessment and on-site visits to top suppliers engender trust and sustainability in the supply chain too. Page 10

Continual improvement. We’re constantly driven by the desire to do better. Everyone at Wilkhahn contributes their skills and expertise regarding potentials to improve customer satisfaction and our environmental performance. Continual improvement methods are applied systematically and make Wilkhahn successful in the long term. Page 14

Improving life sustainably
Providing durable quality, the key to effective resource usage
Fulfilling our pledge professionally
Collaborating fairly across the world
Making the UN Global Compact the basis of our entrepreneurial mindset

Our approach is international. Our passion for making things better includes customer satisfaction as well as our environmental performance. Because fairness towards people and the environment belong together. Which is why, in our globally interconnected world, we place emphasis on sustainability in our supply chains, which are monitored regularly. Wilkhahn is committed to the principles of the UN Global Compact, which serves as a road map for everything we do. Our business rationale’s key objective is to support people professionally and engender enthusiasm for Wilkhahn worldwide, whether they’re customers, partners or co-workers. And by keeping our promise, we want to gain them as friends.
Design principles

“A poor and superfluous product will remain poor and superfluous, even if it’s produced in an ecologically friendly manner”.

Three important factors
Because the world’s population is growing and people justifiably want a share in the wealth created, strategies that are only concerned with the ecological quality of products are heading up a blind alley. Since the middle of the last century, less is more has been a design goal that focused on the less aspect and making products better. The famous Ulm University of Design’s founding manifesto back in the early 1950s already showed the sustainable direction in terms of product design that Wilkhahn wanted to pursue: “The goal is to develop durable products, increase their utility value and reduce waste”. Three factors above all decide on how long a product will last: perfect functionality that’s still up to date many years later; quality in the design, materials and surfaces which is created to match user patterns and to be impressive for a long period of time; and a design language that is over and above short-lived fads and doesn’t just appeal to people’s minds but to their hearts as well.

Pioneering innovation
The key question we ask ourselves is: How can we improve people’s lives sustainably through the way their workspaces are furnished and fitted out? Therefore, when developing a new product it’s not about a new chair per se, but about better sitting, not about a new table, but about nurturing communication, not about a new sofa, but about relaxation. Or thinking about people’s needs. Or informal communication. Therefore, innovations at Wilkhahn are the result of a careful development process, which starts by thinking outside the box and truly making things better.

Durable quality
The almost proverbial Wilkhahn quality has made the brand successful internationally. Precise dimensions, form-fit parts and surface quality convey perfection and the high-quality nature of the product. What’s the point of being able to recycle virtually all the product if it’s less attractive, heavier and works less well as a result? Therefore, a careful balance is struck between availability, performance, costs of the materials and demands, such as those made by material recycling for instance. In addition to the standard of materials, particular attention is paid to smart design principles that include the ability to repair and upgrade the products.

Timeless, attractive design
Wilkhahn’s design language typically gets to the heart of the matter, conveys the product’s natural aspects and its ease of use. The integrative design concept lends products a transparent, attractive and consistent look. Their distinctive appeal means they harmonize with all sorts of backdrops without dominating them. In other words, a Wilkhahn product can accompany its owner a life long because it doesn’t become boring, lose functionality or its appeal.

Wilkhahn had already introduced an all-embracing ecologically responsible design concept back in 1991. Today, the design management and product development departments follow the criteria for the Federal Ecodesign Award, which was initiated by the Federal Environment Agency and the International Design Centre Berlin with the Eco Institute in Freiburg.

A practical purpose as the basis for eco-friendly product design
Real added value in terms of product use
Functionality that’s sustainable
Appropriate material selection and superior craftsmanship
Timeless, integrative design
Product responsibility

Our antidote to the throw-away society is to provide products where form, function and materials have a purpose and are long lasting. Our product-responsibility concept therefore follows well-defined guiding principles:

1. Avoid waste – “the longer and better”
   is the remit to our product development team. We achieve this thanks to:
   • useful innovations that make life easier and more pleasant in the long term;
   • first-class materials, surfaces and technical solutions that guarantee quality even after many years;
   • distinctive, timeless and appealing designs with the potential to become classics.

2. Reduce – “less is more”
   is more than just a design principle to us, it means:
   • we reduce the materials used to make handling easier and to protect resources;
   • we use energy in manufacturing efficiently, for example by drawing on a combined heat and power plant and heat recovery in manufacturing;
   • we reduce emissions, by utilising solar power, climate-neutral energy sources (cutting (CO₂).

3. Recover – “Reuse + Recycle”
   In this case, the goal is to continue to use the whole product or parts of it and recycle it at the end:
   • Because the products are modular, expendable parts can be exchanged and features added or retrofitted (e.g. armrest types, covers, cushions, surfaces),
   • Connecting points in the product can be dismantled for easy repair.
   • Where possible, we use pure materials that are marked as such, making them ideal for recycling.

4. Fairness – responsibility all along the line
   At Wilkhahn, environmental and social responsibility are inseparable. Health and safety, training, active participation by and fair pay for employees have been integral parts of our corporate culture. As a result, we actively encourage our suppliers and customers worldwide to improve working conditions. Wilkhahn joined Global Compact and was the first furniture manufacturer to sign an international framework agreement on global recognition and fostering of employee interests with the International Labor Organization (ILO).

Modus office chair
Design: Klaus Franck, Werner Sauer

Since 1994, it’s been a blueprint for using resources effectively. It offers exceptional, dynamic comfort, uses materials sparingly and has easy-to-replace expendable parts. Modus can also be disassembled completely by just removing eight to 12 screws.
Product innovations, sustainability included

The product is the proof of the message

Each and every Wilkhahn product is a prime example of practical functionality, quality and design as the key to sustainability. Milestones, such as the still very contemporary FS-Line and Modus office chair classics, stand out for their outstanding dynamic comfort, first-class design and durability. Cushioning, covers and expendable technical parts are inexpensive to replace so that chairs can be updated, even after long periods of heavy use.

The ON office chair with its patented 3D synchronous adjustment technology called Trimension® has become an award-winning benchmark for healthy and excellently designed three-dimensional dynamic seating worldwide. Alongside the key design accolades worldwide, it has also received the Federal Ecodesign Award. And the athletic IN office chair with its direct control, high-tech seat and back, as well as its waste-free 3D form-fit knitted cover on the backrest, is even more dynamic but has fewer separate components. And the AT range with its automatic weight adjustment feature and wide choice of models ensures that this new type of movement can also be used in hot-desking workspaces.

The Confair folding table, for dynamic conference shapes that encourage interaction and participation, consists of one-type, recyclable materials and repair-friendly connecting parts. It allows much better use of space, cuts the time and costs spent on facility management and saves on resources, emissions and maintenance costs when setting up and operating conference and seminar spaces. This eco-friendly approach goes above and beyond what can be achieved through the ecological concept behind a product. The same applies to our Aline multipurpose chair that combines a minimalist approach to the materials used to make it with maximum transparency, a compact size when stored away and easy handling.
With 192 basic designs, the Occo multipurpose chair range is a modular solution for all types of meetings. It combines comfort and variety with a sense of identity that easily allows subsequent modifications and conveys the fascination with natural materials with optional solid wood frames and panels. The studies on PrintStool One evaluate how the latest 3D printing technologies can produce a new aesthetic with a minimum use of materials and no waste, how local production can lead to savings on logistics and how a biological plastic like lignin is chosen as a source material that doesn’t compete with food production.
International product and material standards

Wilkhahn items of office furniture are true quality products. Wilkhahn pays attention to detail and applies first-class materials and top craftsmanship to make its products. Upholstery fabrics, leather, composite wood, foam, plastics and metals are some of the materials Wilkhahn uses. They are primarily made by specialized suppliers according to specified technical and aesthetic standards. Wilkhahn places huge emphasis on consistently high quality and therefore checks incoming goods according to specific criteria.

Low-emission leather

The leathers chosen by Wilkhahn are first class, robust and have pleasant haptics. Above all, suitable tanning agents and dyes mean they don’t have a strong smell and are not toxic. When creating the collection, in addition to the aesthetic appeal, the company made a point of including no harmful substances.

Wilkhahn uses European cowhide, which is primarily manufactured in Germany and Austria. The tanneries only use tanning agents and additives that comply with European laws on the environment and chemicals. Wilkhahn performs regular on-site audits to ensure that the stringent European health and safety and environmental standards during leather production are complied with.

Wilkhahn leather is currently available in two leather categories and in various colors. The two types of leather available are German-produced premium leathers and have been awarded the Blue Angel label. They contain no harmful substances, are low on emissions and, in terms of water consumption and waste-water criteria, are particularly eco-friendly.

Wilkhahn only uses low-emission textiles and leather. Some upholstery materials in the Wilkhahn collection have Öko-Tex 100, the EU Ecoflower or Blue Angel certification.

Natural materials, such as fabrics and fleeces made of wool, cotton, cork and coconut fibers are some of the exceptionally ecological materials Wilkhahn applies.

Wilkhahn foams are comfortable, durable and can be recycled because none contains halogenated flame retardants. Our foams are CFC and halogen free.

Wilkhahn tables and office chairs are available in several standard colors, which are made in an energy-efficient way in our own powder coating machinery and contain no solvents or heavy metals. Customized colors are also possible on request.

Chrome-plated metal finishes contain no harmful chrome compounds or other heavy metals (as specified in EN 71-3).

Vegan leather

Wilkhahn can also offer upholstery material in imitation leather as a vegan alternative to real leather. These polyurethane-based artificial leathers are hard-wearing and particularly easy to clean. We recommend choosing imitation leather in heavy-use areas where hygiene is also critical. Because its surface has no pores, it can repel liquids much better and is easier to clean compared with leather and woven upholstery materials. The artificial leather Wilkhahn uses is made in a resource-friendly manner and is low on harmful substances. It also has Öko-Tex 100 certification.
**Upholstery materials**

Wilkhahn offers upholstery materials that fulfill superior demands on design and are ideal for professional use. Depending on the fabric group, the materials are made of high-quality wool, long-lasting synthetics or a blend of natural and synthetic fibers. In the case of synthetic fibers, materials with a maximum level of post-consumer recycled content are being increasingly used.

All upholstery materials at Wilkhahn are made without azo dyes or other chemicals banned in the EU. Some upholstery materials also have well-known quality labels, such as the Oeko-Tex 100 or the Blue Angel. If required, samples and data sheets can provide detailed information on all Wilkhahn fabric groups.

Mesh fabrics or knitted fabrics made of durable synthetic fibers, of the type used for the IN office task chair, are particularly efficient when it comes to materials and are environmentally friendly. When covers are knitted, virtually no production waste occurs at all because their contours are created by special patterns. Therefore, contouring is not required by having to cut rolls of fabric.

**Plastics**

Modern product design is inconceivable without plastics. Wilkhahn uses robust polyamide, polypropylene and polyurethane plastics that are as pure as possible. If required, fiber-glass-reinforced plastics are also applied. Wilkhahn labels all plastic components with clear details about the materials to enable subsequent recycling. Plastic components can also be made of recycled materials as long as aesthetic and technical requirements are met.

**Foams**

Wilkhahn uses polyurethane foams of different densities to achieve optimum comfort in each case. All standard foams are CFC-free and do not contain halogenated flame retardants. As a result, they can be recycled once the product has reached the end of its useful life.

Wilkhahn meets fire safety requirements in a manner that’s environmentally friendly as possible. Special upholstery materials from the Wilkhahn collection protect the foams from becoming ignition sources. In order to meet particularly stringent requirements, Wilkhahn also offers upholstered types that come with additional fire-resistant padding fabrics or flame retardant foams.

**Composite wood and solid wood**

Wilkhahn uses industrial composite wood for its high-quality table ranges that is low on emissions and ensures a consistent standard of craftsmanship. For the first-class Wilkhahn finishes and wide range of edge profiles in our table ranges, we also choose strips of veneer and solid wood that tick all the boxes in terms of design, technology and environmental impact.

The composite wood materials and solid wood in Wilkhahn’s tables are primarily produced regionally and from responsibly managed forests. This is guaranteed by European regulations on forest management and traceability of the origin of the wood.

Wilkhahn also gives preference to partners who have been certified according to international sustainable forestry management standards. For example, the guidelines set by the Forest Stewardship Council (FSC) place high socio-ecological demands on the production and trade of wood.

Wilkhahn has FSC certification. The company’s headquarters in Bad Münster, Germany, are listed in the FSC under TUEV-DOC-000462. Wilkhahn uses sustainably produced wood of a known origin and, at the special request of customers, composite wood materials that have been award the FSC label too.

For its modular Foldscreen range, which provides privacy and noise insulation, Wilkhahn uses a lightweight panel made of sound-muffling PET acoustic fleece, 50 percent of which is made of recycled material and has Oeko-Tex-100 certification.
**Genuine-wood veneers**

Wilkhahn veneers are sophisticated natural products. Only the best-quality tree trunks are turned into fine veneer leaves and, in turn, experienced experts only select the best ones. Depending on the type of wood, the thickness of the veneer is between 0.6 and 1.2 mm. This is a pledge of high quality and kind to nature at the same time.

Wilkhahn’s range of veneers includes flowery and stripy veneers made of oak, maple, walnut, elm, ash and beech and many other European types of wood. Wilkhahn regularly procures and processes special veneers for exclusive customer requirements.

Wilkhahn has also been using synthetically made genuine wood veneers as responsible alternatives to tropical types of wood for years. These imitate the look of wood such as Makassar or zebrano, protect the rain forests and also exhibit very good technical qualities.

**Metals**

Many components in Wilkhahn’s office furniture are made of metals. Tubular steel, spring steel, metal sheets and screws with different alloys, but also tubes and parts made of die-cast aluminum and zinc alloys are used. Wilkhahn’s product development department specifies the materials, which are chosen to fit the purpose and the components’ required technical characteristics.

A proportion of the metal components are made of recycled materials. Some aluminum components are made exclusively of recycled material. Clearly labeling the metals ensures that they can be easily recycled at the end of a long product life.

**Decorative and sustainably produced metal surfaces**

Wilkhahn offers product components that optionally come with chrome-plated, anodized, powder-coated or polished metal surfaces. None of Wilkhahn surfaces is harmful to people or the environment.

During the chrome-plating process, the surfaces are refined by electroplating them. Chrome-plated components are timelessly elegant and particularly resistant to scratches and corrosion. Wilkhahn uses carefully selected partners to carry out the chrome-plating process. Regular inspections of their galvanizing processes also ensure that strict environmental-protection and health-and-safety regulations are also kept to during chrome plating.

When powder coating, the metal components are covered with a robust varnish. At the Wilkhahn headquarters, the powder-coating process is especially eco-friendly because surplus powder is recovered. The powder varnishes Wilkhahn uses also contain no organic solvents or heavy metals.

All materials are made in a fair and ecologically friendly manner. Frequent integrated audits in the Wilkhahn supply chain ensure this is the case.

Wilkhahn office furniture fulfills the relevant international standards regarding durability, safety and ergonomics in workspaces and is often awarded the GS mark.

Good design and first-class materials make Wilkhahn products durable. And many items of Wilkhahn furniture have extended five-year guarantees.

Wilkhahn furniture is low on emissions to ensure that the air in buildings is healthy.

This is verified by regular Greenguard™ emissions tests.

During the anodizing process, some of the aluminum is turned into aluminum oxide with the aid of an electric current. Oxidation renders the surface more scratch proof and gives it an even matte shine. The decorative surface is not varnished and contains neither solvents nor heavy metals.

Wilkhahn offers almost all aluminum components as matte-polished, polished or high-luster-polished versions. The high-quality, decorative surfaces are achieved mechanically by repeatedly polishing and cleaning the aluminum components. As this process requires less energy and no chemicals, polished surfaces are particularly kind to the environment.
Environmental product information

Our goal is to be transparent and open with our customers, so we publish eco-relevant information on the most important Wilkhahn ranges in clearly presented data sheets. These are compliant with ISO 14020 et seq. and (in addition to details on material composition and recycling proportions) also include information on the product’s life cycle. They are also available from the service section on the Wilkhahn website:

www.wilkhahn.com

After-sales service

Spare parts are available for many of Wilkhahn’s tables and task chair ranges many years after purchase. By merely exchanging expendable parts, such as armrests, plastic casters or covers, the useful life of a Wilkhahn product can often be extended at a fair cost for many years. Refurbishing furniture is attractive financially and good news for the environment because energy-guzzling parts of frames made of aluminum or metal in particular can be reused. Wilkhahn’s after-sales service team liaises with customers to find the right solution, which, alongside exchanging parts, can also include cleaning upholstery or servicing the whole item of furniture for a flat rate.

Recycling capability and recycled proportions

Thanks to their clever structure, items of Wilkhahn office furniture are easy to take apart. By consistently labeling the materials to international standards, the company can ensure that recycling according to type or proper disposal is possible at the end of the product life cycle. At least 90 percent of the material contained in Wilkhahn office furniture can usually be recycled and used again at the end of the product life. Today, Wilkhahn’s office furniture does already have a certain amount of recycled material. But only if it doesn’t impair the functionality, durability and aesthetic of the furniture.

Customer service

Wilkhahn’s customer service team consists of well-trained personnel who often have longstanding experience in providing support on Wilkhahn ranges and replacing spare parts. Even after many years, spare parts are also available for many of Wilkhahn’s table and task chair ranges. By merely exchanging expendable parts, such as plastic casters or covers, the useful life of a Wilkhahn product can often be extended at a fair cost for many years.

Internal checks, component and product audits

Wilkhahn developed a system of regular internal controls and inspections in order to develop innovative and durable products for discerning demands and produce them in consistent quality. Tests on dimensions and mechanical loads are carried out in our own lab in accordance with the relevant international standards.

Each product is checked at the product-development phase to ensure compliance with previously established criteria. This also includes checking for ecologically beneficial materials. The same testing specifications apply to all materials in order to make no compromises on usage quality and product safety. Therefore, product components made of materials based on a high percentage of recycled materials have to pass the same endurance tests.

Examinations of incoming goods in compliance with the AQL standard (Acceptable Quality Level) and inspections during manufacturing in accordance with documented assembly and checking instructions ensure production quality remains constant. Products have to pass one final control stage before they are shipped to the customer. In the case of conference table systems, this includes checking positioning plans and detailed drawings, as well as the surfaces and the general quality of the craftsmanship. Any relevant multi-media fixtures and fittings are also checked as required. Scrutinizing the look and functionality of Wilkhahn’s task chairs after production is an integral part of the quality program.

External audits

Wilkhahn regularly adds external testing procedures by renowned testing institutes to its own internal system. This includes product audits on a case-by-case basis on whole tables and chairs, as well as chemical and physical inspections of materials. For example, the level of shine on Wilkhahn varnishes or the bonding force of the adhesives are examined. Over the past few years, periodical checks on harmful substances were also added to the checks which are carried out by external testing labs.

Greenguard™

Wilkhahn places emphasis on good indoor air quality. We verify that our products fulfill top demands by carrying out regular Greenguard™ compliant product testing.

The test results are published in a data base in the public domain:

www.greenguard.org
Sustainability management

Wilkhahn maintains an integrated management system at its Bad Münster headquarters in order to improve customer satisfaction (quality), its environmental performance and other social sustainability aspects on a continual basis.* This system is based on five pillars:

- At Wilkhahn, the international ISO 9001 standard is the framework within which customer satisfaction and product quality is improved.

- In order to enhance its environmental performance on a consistent basis, Wilkhahn implements the requirements of ISO 14001 and the voluntary European EMAS regulation.

- Wilkhahn’s headquarters in Bad Münster have been listed in the European Union’s EMAS register under D-133-00055 since back in 2001.

- Since 2009, the international framework agreement to advance employees’ rights and environmental protection has been stipulating requirements in terms of ecological and social fairness within the supply chain, so that employee rights, health and safety and environmental protection are implemented at a high level.

- With product chain certification to the standards prescribed by the Forest Stewardship Council (FSC®), Wilkhahn is supporting a sustainable wood industry. TUEV-COC-000462 is the registration number belonging to Wilkhahn headquarters and C118389 the relevant FSC® licensing code.

As a result, the integrated management system offers a comprehensive organizational framework with which the social and ecological aspects of running a business can be reconciled with Wilkhahn’s financial goals.

* Other Wilkhahn production sites and sales agencies also have to follow the principles of customer satisfaction and sustainability and act based on comparable standards. However, the certification mentioned in the following is limited to Wilkhahn headquarters in Bad Münster.
Wilkhahn headquarters in Bad Münster

Wilkhahn’s headquarters are located in Bad Münster, north Germany, about 50 km south west of Lower Saxony’s capital Hanover. In 2020, Wilkhahn employs 370 people at Bad Münster. The headquarters have been extended and developed several times since the company was founded in 1907. Today, the site covers some 10 hectares in an industrial park outside the village of Eimbeckhausen, a district of Bad Münster. Thanks to their proximity to the A2 freeway and 442 highway, Wilkhahn’s headquarters have excellent traffic links to ship Wilkhahn office furniture worldwide quickly. Wilkhahn’s headquarters are connected to the urban railway system for the Greater Hanover area via the station in Bad Münster.

Well-known modernist designers left their mark on Wilkhahn’s 10-hectare-large premises and include Herbert Hirche, a student of Mies van der Rohe, (Wilkhahn office building 1959). Other examples are architect and Pritzker prize winner Frei Otto (Wilkhahn production pavilions in 1988) and architect Thomas Herzog, who is considered a pioneer of ecologically responsible construction. The production facilities he designed (1992) reflect the socio-ecological change at Wilkhahn. About half of the site consists of green spaces and areas under water. Valuable biotopes have been created around the fire-extinguishing pool, which was created based on ecological criteria, and Eimbeckhausen stream, which flows through the site.

Overall, the office buildings, development workshops and production areas only pose very low environmental risks.

No German Emission Control Act permits are required to operate the machines and equipment.

Sustainable organization

Wilkhahn’s management team has established responsibilities and authorities in order to achieve corporate objectives and the sustainability goals. The organization is audited often and adapted as required. The organizational chart on the next page outlines the current structure of the company.

Wilkhahn management undertakes to meet legal requirements.

At the Bad Münster headquarters, responsibility was transferred in key areas of environmental protection, work and safety and monitoring legal requirements to the technical management team.

In addition to the head of production, who also performs the duties of the health and safety officer and fire prevention officer, as well as the head of quality management and sustainability, Wilkhahn has also appointed safety officers who are responsible for health and safety, fire prevention and environmental protection. If required, they are supported by external experts. In addition to the company physician, these include environmental and fire prevention experts who Wilkhahn collaborates with if required.
Environmental law and environmental audit
The head of quality management sustainability joins forces with the CTO regularly to check whether changes in the environmental framework require alterations to processes in the company. In the process, information is used that is provided by expert bodies, such as the chamber of industry and commerce’s environmental committee, industry associations and an online environmental law portal that we subscribe to.

As a result, any changes in the law can be identified and implemented in time. This concerns European regulations, German laws and technical regulations, as well as laws and regulations in Lower Saxony and municipalities.

<table>
<thead>
<tr>
<th>Area of (environmental) law</th>
<th>Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building law</td>
<td>Building permits, industrial construction directive, Lower Saxony building code</td>
</tr>
<tr>
<td>Water</td>
<td>Wasserhaushaltsgesetz, Anlagenverordnung AwSV</td>
</tr>
<tr>
<td>Emissions/immissions</td>
<td>Bundesimmissionsschutzgesetz, 1. BImSchV, 31. BImSchV</td>
</tr>
<tr>
<td>Hazardous materials</td>
<td>GefStoffV, Verordnung (EU) 514/2014, Chem2axonSchichtV, TRGS</td>
</tr>
<tr>
<td>Waste, recycling</td>
<td>Kreislaufwirtschaftsgesetz, GewAbfV</td>
</tr>
<tr>
<td>Health and safety</td>
<td>ArbSichG, DGUV, ArbStättV, BetriebssicherheitsV</td>
</tr>
<tr>
<td>Conservation</td>
<td>Niedersächsisches Naturschutzgesetz</td>
</tr>
</tbody>
</table>

Important specifications are anchored in Wilkhahn’s process standards and the workforce is notified about these during frequent training sessions and briefings. The overview in the column on the left indicates particularly relevant regulations.

By carrying out frequent environmental audits, Wilkhahn ensures that the current environmental regulations are adhered to throughout the company.

Communicating sustainability
At Wilkhahn, sustainability information is frequently given in the company itself and to partners, customers and other interested parties. Wilkhahn believes that transparent communication is imperative for fairness and pivotal to fostering continual improvement.

Wilkhahn shares environmental information on its office furniture and sustainability management’s milestones and stumbling blocks with a broad section of the public. The consolidated Environmental Statement with Sustainability Report is an important component alongside the Wilkhahn website, catalogs, product data sheets, special environmental product information, the blog and the Der Wilkhahn customer magazine. They all provide details on the benefits of Wilkhahn office furniture and special sustainability issues at Wilkhahn.
ENVIRONMENTAL VERIFIER’S DECLARATION ON VERIFICATION AND VALIDATION ACTIVITIES

in accordance with the

Mr. Thomas Bunge, accredited or licensed for the scope "NACE-Code 31.01 - Production of furniture", declares, to have verified whether the whole organisation as indicated in the environmental statement of the organisation.

Wilkhahn
Wilkening + Hahne GmbH + Co. KG
Fritz-Hahne-Straße 8
31848 Bad Münstereifel
Germany


By signing this declaration, I declare that
- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,
- the data and information of the environmental statement of the organisation reflect a reliable, credible and correct image of all the organisations activities, within the scope mentioned in the environmental statement.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Bad Münstereifel, 15.05.2020

Thomas Bunge
Environmental Verifier
DE-V-0122

TÜV NORD CERT UMWELTGUTACHTER GmbH Am TÜV 1
Registration number: DE-V-0263 30519 Hannover www.tuev-nord.com

EMAS audits are voluntary, but Wilkhahn has of course taken part in them for many years. EMAS validation confirms that Wilkhahn abides by current environmental law to the full.
Management responsibility and profit sharing

A collaborative style of management, co-worker- and group-driven methods of working, which allow a high level of self-control and initiative, are typical of and the long-standing tradition at Wilkhahn. Since 2000, a potential-driven approach has applied in the organization: “The company is organized to harness potential. The purpose is to harness synergy, pool skills and give individuals greater freedom to act”. As part of the long-term corporate strategy, the roles and responsibilities of managers and their co-workers have been precisely defined as regards implementing the strategy. As a result, a balanced scorecard was drawn up together, which was cascaded for all levels and rolled out across the company. Each month, managers and co-workers update the members of the management board on current key performance indicators and the status of important corporate development projects in their departments. People are selected randomly to take part in the monthly Breakfast with the Management Team, which is an informal meet-up.

Management and development

Key management tools to achieve corporate goals are as follows:

- **Objectives agreements – setting, measuring and assessing goals, as well as learning:**
  The principle of objectives-based management is transferred to co-worker level too. Criteria are participation-driven agreement on interim goals, objective assessment, transparency across departments and commitment.

- **Skills model**
  In order to improve management at Wilkhahn, a new skills model was launched that embraces entrepreneurial, management, social and personal skills. Tools are for example feedback with each employee that is given at least once a year.

- **Development of the next generation**
  One of the tasks of long-term business planning is looking out for likely successors in the medium term. Considering demographic change and the lack of skilled professionals, the next generation of managers are identified at an early stage and fostered via personal development plans and training, such as project-manager courses.

- **Upskilling**
  The recurrent planning and budgeting process required to develop the company includes company-wide identification of requirements, planning and implementation of training and upskilling measures. Participation in these types of measures can also be an integral part of objectives agreements in order to foster change processes.

- **Bonus scheme**
  For blue-collar workers a new bonus scheme was developed at the suggestion of and in partnership with the works council. In addition to incentives to consistently improve productivity, it also includes a quality bonus in order to encourage people’s sense of responsibility and motivation to carry out quality control.

Potential-driven
Objectives agreements
Fostering talent
Training courses
Participation-driven

Active participation as the key to continual improvement

Wilkhahn actively involves its staff in the way the company is shaped. The management officer on the works council and the health and safety officer provide major stimuli to help improve social sustainability and responsibility for the environment. They often get the workforce involved through works meetings and the quarterly health and safety and environmental committee. Wilkhahn’s ideas management system allows any co-worker to suggest ideas to make the company even better. Whether it’s a question of avoiding risks in the workplace, saving material or energy. An important incentive is that any good idea is also rewarded financially according to a transparent method.

The way in which co-workers can participate is set out in company agreements.
Corporate values when collaborating
The overarching maxim is fairness and aspects like trust and reliability, listening to customers' needs, commitment, simplicity, sustainability and the desire for innovation that shape Wilkhahn's corporate culture. Wilkhahn views these corporate values as joint fundamental convictions that are shared, practised and developed by all the workforce worldwide. They underpin the way we act, particularly our leadership and participatory culture at Wilkhahn.

Vocational training and life-long learning
Well-trained employees are pivotal to a company developing successfully. Wilkhahn offers meticulous and thorough vocational training to young people in the blue-collar or white-collar sector, or as part of collaborative education courses. But personal development also applies to long-standing co-workers who are also offered training to help them cope with the changing demands of their jobs. As an SME, lifelong learning and upskilling is particularly relevant in order to attract and retain staff. Wilkhahn's requirements as regards training in ongoing skills are provided via regular feedback from each employee and analyzed, assessed and included in upskilling planning.

Social responsibility
Wilkhahn is a member of several clubs, associations and networks dealing with sustainability, which the management team and co-workers are actively involved with during working hours. Some of these include:
- The German Sustainable Building Council e. V. (DGNB)
- The German Association of Environmental Management e. V. (B.A.U.M.)
- The Institute for Market-Environment-Society (imug e. V.)
- future e. V. - Verantwortung unternehmen
- The Lower Saxony Alliance for Sustainability
- The Büro und Arbeitswelt e. V. industrial association (IBA), in the environmental committee and others
- in the energy and environmental committee of the chamber of industry and commerce in Hanover

We frequently report on our cultural and societal engagement in our blog. We also hold various presentations at colleges, associations and institutes and write articles on design and sustainability.

Equal opportunities, anti-discrimination, fair pay
All apprenticeships, vacancies and management positions are advertised and awarded without any discrimination towards a particular sex. The principle of equal pay for the same job has applied regardless of sex and ethnic group at Wilkhahn for many decades. The abilities of people with special needs are respected at Wilkhahn. And these people are integrated into standard day-to-day operations. The regulations on pay, vocational training and equality are also set out in company agreements. Wilkhahn has appointed an anti-discrimination and equal opportunities officer who acts as a point of contact and mediator alongside the works council.
1907: The company is founded by brother-in-laws Christian Wilkening and Friedrich Hahne as one of over 100 firms in Deister-Sünteltal, at that time a hub of the German chair industry to the south west of Hanover.

1950: Products are sold regionally in the early years.

1960: The export department is founded.

1968: Laminated wood range 400 – a lightweight, flexible and unbreakable multi-purpose chair by Wilhelm Ritz.

1970: Delta-Design's 238 product range is way ahead of its time.

1907: Architecture

Today, the oldest section of the building is still integrated in the old boiler house. As part of the conversion of the old factory into an admin building in the early 1990s, it was redeveloped and turned into a communications centre.

The management building (1939) by Herbert Hirche is inspired by the Bauhaus and was designed as a concrete structure with a clinker brick façade.

1950: A business with a human face

Fritz Hahne and Adolf Wilkening define and adopt a new strategy for the company.

Wilkhahn shows corporate responsibility: a company pension plan and low-cost company loans to employees are introduced.

1960: Architecture

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The management building (1939) by Herbert Hirche is inspired by the Bauhaus and was designed as a concrete structure with a clinker brick façade.

1960: Environment responsibility

Wilkhahn Green

Wilkhahn becomes a pioneering company for modern furniture design. New materials like steel and plastic become more popular. Renowned architects and designers develop product ranges.

1961: Hans Patar Piehl's stackable slatted chair is born

1965: Development of business segments called creation of transit areas and objects for backdrops where people meet


1973: Subsidiary is founded in France

1974: Subsidiary is founded in the Netherlands

Start of the collaboration with Ulm University of Design, the principle of which is:

"The goal is to develop durable products, increase their utility value and reduce waste."

Profit sharing for employees and Mitarbeitungs-beteilungs GmbH

From 1907: products are sold regionally in the early years.

From 1950s: Products are sold nationwide in Germany and international business operations are launched (e.g. US, the Netherlands)

1968: Production facilities are set up in Castellon with a sales office in Madrid, Spain

1976: Delta-Design's 238 product range is way ahead of its time.
1980: "At Wilkhahn, no two bricks are to be laid unless a building’s produced that satisfies all ecological, economic, aesthetic and best-practice working requirements". (Fritz Hahne).

More people-friendly working environment: in 1988, Frei Otto's pavilions became a deliberate embodiment of corporate culture and an integrated understanding of product design, social partnership and responsibility for the environment.

1984: “At Wilkhahn, no two bricks are to be laid unless a building’s produced that satisfies all ecological, economic, aesthetic and best-practice working requirements”.

(1988) Frei Otto's pavilions became a deliberate embodiment of corporate culture and an integrated understanding of product design, social partnership and responsibility for the environment.

1982, Innovation: sitting on mesh (O-Line by Herbert Ohl)

1988: Wilkhahn identifies Conference as a segment and second strategic pillar.

1980: the company adopts a more international approach. Foreign business is a declared strategy.

1980: the FS office chair line is launched and aims to take the complexity out of seating. Today it’s a modern classic. The synchronous adjustment technology creates a new benchmark for healthy seating.

Design: Klaus Franck, Werner Sauer

The company’s consistent goal is to develop high-quality office chairs and conference furnishings in the premium segment.

The workforce is involved in the design of the new production pavilions (e.g. the sewing department with underfloor heating).

In 1989 the administrative board votes to make ecological change an official part of the company’s manifesto – a pioneering step by the company.

An environmental controlling and refuse management concept is implemented.

1988: Wilkhahn identifies Conference as a segment and second strategic pillar.

The Picto task chair range is launched as the first office chair worldwide to consistently integrate ecological criteria in its design concept. Design: ProduktEntwicklung Roericht

Ergonomic milestone: Stitz sitting-standing hybrid, design: ProduktEntwicklung Roericht

Quality management system ISO 9001 established

The ability to repair Wilkhahn furniture ensures long product lives.

1989: Wilkhahn UK founded

1990s: markets in north, east, south and south-east Europe are opened up and expanded

1991: Wilkhahn Austria and Wilkhahn Belgium are founded

1990s: markets in north, east, south and south-east Europe are opened up and expanded

1985: the Wilkhahn design department is turned into a subsidiary called wiege.

From 1985: markets in the Middle East are developed

1990: The production facilities built by Thomas Herzog become a symbol of ecological change.

"Projects drive the company": group- and project-work are new forms of work (1994).

1990: Wilkhahn is presented the German Environmental Prize by the German Environmental Foundation for its corporate responsibility concept.

1995: licensing partnership in Japan

1983: Wilkhahn Switzerland founded

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Confair creates a global benchmark for conference rooms. Folding table design: Andreas Storiko

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Confair creates a global benchmark for conference rooms. Folding table design: Andreas Storiko
2007: the “Responsible furniture for a professional life” core statement is established
2004: a new version of the company pension plan is drawn up
2002/2008: a contract to safeguard jobs and the German site as a manufacturing hub is signed
2007: Wilkhahn gets in shape for the future and starts its Wilkhahn 2017 strategy development process (involving the global workforce).
2009: an international framework agreement is signed with German trades union IG Metall on compliance with minimum working conditions across the globe
2010: Dr. Jochen Hahne is awarded the title of “Entrepreneur of the Year” by the “Family Entrepreneurs Association”.

2004: Aline, a light and transparent multi-purpose chair, is born. Design: Andreas Störkko
2006: the offering for informal communication areas is expanded. Design: Eric Degenhardt
2008: Wilkhahn Middle East is founded in Dubai. The sales company looks after the southern Mediterranean.
2005: foresee becomes an independent subsidiary
2008: Wilkhahn Inc. is founded in New York City. Today the company is present on all continents.
2009: sales network in North Africa and Israel is shored up
2010: Automotive Progress meets Chair Design: the Chassis multi-purpose chair. Design: Stefan Diez
2011: hot water is now produced by solar collectors in the whole of the old building and the four pavilions.

1998: the company health management system is initiated in partnership with German healthcare insurer AOK: a pilot project with bonuses to companies with a good health management system
1999: interactive conference furniture, such as InteracTable®, InterWall® and CommBoard®, is developed with digital equipment integrated into walls and tables
1999: a high-tech combined heat and power station based on renewable raw materials is built.
2000: a new powder-coating machine is installed with a closed processing water cycle and powder recovery
2001: the EMAS European Environmental Management System is launched
2002/2008: a contract to safeguard jobs and the German site as a manufacturing hub is signed
2007: 150th company anniversary with 100+ as the slogan
2009: a new wood surface treatment with heat recovery is created
2008: a showcase as part of the world exhibition Expo 2000: “The future of work in the conflict between people, nature, technology and market”
2004: a Good Practice Award in Safety and Health is presented by the European Commission
2008: Wilkhahn Energie GmbH founded
2005: interactive conference furniture, such as InteracTable®, InterWall® and CommBoard®, is developed with digital equipment integrated into walls and tables
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1998 saw the foundation of Wilkhahn Wilkhahn Asia Pacific in Sydney, a sales and production site to tap into new markets in Australia, New Zealand, Singapore, Hong Kong and China.
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2012: the info container explains the energy concept and dimensions of the environmental management system to visitors.

2012: New lounge area in the old boiler house (1910)

2012: New showroom in Sydney, as the first showroom in Australia with WELL Building Standard certification.

2013: aesthetically and ergonomically Graph defines a new standard for conference furniture. Design: jehs + laub

2018: Jörg Hoffmann and Wilkhahn are awarded the B.A.U.M. environmental prize for their exceptional sustainability performance.

2018: Lower Saxony's Alliance for Sustainability honors Wilkhahn for its exemplary engagement for co-workers and environmental protection.

2018: A biogas plant nearby is connected to the district heating grid.

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2018: Occo. Design: jehs + laub

2018: Metrik. Design: whiteID

2018: AT. Design: Wilkhahn

2018: Intra chair, design: Phoenix Design, and Versa table system, design: Wolfgang C.R. Mezger

2018: Wilkhahn receives the Architects' Darling Award as the winner of the cradle-to-cradle challenge.

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Promotion of health and safety

**Health programme**

“Health is one of the most valuable assets, both for individuals and for companies. Therefore, protecting and actively encouraging the health of our employees plays a pivotal role in the company.”

In terms of protecting health and company health management, Wilkhahn wears two hats:

- as a company that has to engage with the links between motivation, maintenance of performance, demographic change and extended working lives in order to ensure it can survive in future,
- as a developer, manufacturer and marketer in furnishing modern working environments that boost the feeling of well-being, health and success of the people using them.

**Company health-management system**

The company health-management team consists of the chairman of the works council, the head of human resources and employees from the same department, as well as the health-and-safety expert.

They come up with ways of boosting health, which complement the risk-avoidance approach adopted by the health and safety management team.

- **Reflecting demographic change and an ageing workforce**

  The average age in the company is on the increase and therefore so is the average age of the Wilkhahn workforce. At the same time, the pension age has been increased and the length of a working life is rising. The company’s health-management system deals with the resulting challenges. The goal is to foster productivity and a good working environment with the cooperation of both younger and older employees.

- **Raising awareness in managers**

  Health means so much more than the absence of any illness, a holistic approach is required. Good working conditions have a lot to do with good management. The company health-management system encourages managers to take their responsibility for health in the company seriously.

- **Encouraging personal responsibility for health**

  Nobody can take responsibility for the health of other people: for their diets, the way they spend their leisure time, for consumption of stimulants and their private affairs. The company health-management system gives tips and advice on how to take on more personal responsibility.

- **Taking preventative action**

  It costs relatively little to maintain your state of health, but recovering it is expensive, both for the individual and the company. Once complaints occur it’s often almost too late. Which is why the company health-management system’s principle is that prevention is better than cure.

  At Wilkhahn, company health-management tools have been developed over the years, often with external partners. This process is an ongoing one.

- **Phased integration after sick leave**

  Phased integration after sick leave has been popular and has a good track record. When people have been off sick for a long time, it helps them find their way back into their jobs.

- **Monthly allowance for fitness programmes**

  Anyone wishing to improve their own health, will receive an allowance from Wilkhahn for a gym and wellness park nearby.
• **Activity days**
The health activity days have become part and parcel of the company’s health-management system. Since 2013, certain topics and aspects related to health and safety have been presented to the company’s workforce. Wilkhahn allows employees to take part during paid working hours.

• **Physiotherapy and sport programmes**
We’ve been working together with physiotherapists since 2013 who visit employees at the workplace in order to do specific exercises to alleviate complaints and prevent muscle and skeletal illnesses. Other programmes include company sports, Pilates and back exercises.

**Behavioral and structural approaches for systematic healthy and safety**
These include:
- planning safe procedures and workspaces;
- organising and defining responsibilities;
- defining and implementing health and safety and fire prevention measures;
- providing information and courses on workspace risks and the right way to respond;
- regular safety tours of the areas worked in;
- quarterly consultations given in the health and safety committee, where the health and safety interests of all Wilkhahn staff at headquarters are represented;
- regular updates of the workspace risk assessments;
- regular training courses by the health and safety officer and first aiders

The health and safety officer is consulted early on during the planning phase and ensures that physical and psychological stress is minimized. Wilkhahn provides technical equipment for physically demanding activities such as lifting table tops, or turning task chairs during assembly. Lifting equipment and electrical lifting gear and lathes, as well as protective devices on the machines and height-adjustable tables, have been used at the Bad Münster headquarters for several years.

If possible, no hazardous substances or materials are used. Where unavoidable, for example when degreasing or bonding items, quantities are optimized and protective measures taken so that safe handling of the hazardous substances is guaranteed.

Wilkhahn co-workers are only permitted to carry out risky jobs if they’ve been informed about the relevant rules governing safety and conduct beforehand.

Wilkhahn also provides free personal protective equipment such as safety shoes or ear protectors to staff. A company physician also gives advice during regular surgeries and offers check-ups.

The psychological stress that both staff in the production departments and offices can be subjected to is a relatively new area of health and safety. As part of a pilot project with professional associations, Wilkhahn was one of the first companies in Lower Saxony to include psychological stress when assessing the risk in all workspaces. Special acoustics components were purchased to cut down on noise-related stress in offices and managers were made aware of various types of psychological stress.

Wilkhahn invests regularly in health and safety maintenance. Back in 2000, Wilkhahn was presented with the European Good Practice Award in Safety and Health at Work by the European Agency for Safety and Health at Work. The low number of accidents incurred by our co-workers at our Bad Münster headquarters proves that professional health-and-safety management is worthwhile.
As part of its sustainability management system, Wilkhahn ensures that the negative impact on the environment and society is minimized and any positive effects are maximized if possible. To do so, Wilkhahn identified sustainability aspects associated with the development, manufacture and sales of office furniture.

**Direct environmental aspects**

A major impact on the environment, originating at Wilkhahn headquarters in Bad Münder, is the emission of pollutants into the air, in particular carbon dioxide, which occurs during combustion processes to generate energy and during transportation. Low quantities of organic solvents are still emitted in the upholstery department.

Consumption of natural resources has another major effect on the environment. Wilkhahn helps save resources by making durable, repair-friendly products and using recycled materials. Electricity consumption in the production facilities and offices also have an impact on the environment. Key consumers of electricity are the lighting in the production facilities and offices, circulation pumps and other items of the technical infrastructure, such as cooling devices and air conditioning, compressors to create compressed air and IT hardware.

Water-pollution control is another environmental aspect. Substances such as heating oil, which pollute water, are also stored at the Wilkhahn headquarters in Bad Münder. Frequent checks, expert inspections and maintenance ensure that all machines and equipment are operated in a low-emission and energy-efficient way.

Further direct environmental aspects with low or undetectable effects on the environment are a moderate occurrence of non-toxic production waste and low quantities of hazardous waste. Fresh water for the powder coating machinery and the sanitation areas is also used.

No negative impact on biodiversity has been detected. At Wilkhahn, soil would only be dug up or land sealed if headquarters were to be extended. This is not planned for the foreseeable future. Therefore, no key figure is reported in this case.

**Indirect environmental aspects**

The production and global marketing of Wilkhahn office furniture also has an impact on the environment. Examples are the requirements in terms of materials, energy and space to exploit and transport resources and the associated emissions and encroachment on natural ecosystems. Within the Wilkhahn supply chain, further energy requirements and emissions also occur when manufacturing pre-products such as metal and plastic parts and foams for seats. When refining the surfaces of metals, water-pollution control and resulting waste are also important.

Further emissions occur during transportation within the supply chain. Since 2019, delivery of ready-to-assemble table tops has also caused a rise in emissions when they are transported. And shipping the furniture also requires energy and causes CO2 emissions. Wilkhahn’s goal is to reduce the negative impact on the environment resulting from these indirect environmental aspects. Therefore, when developing new products, Wilkhahn tries to use materials that are as environment friendly as possible and, when it selects its suppliers, ensures that environmental and social standards are kept to.

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**Sustainability aspects**

<table>
<thead>
<tr>
<th>Specific environmental aspect</th>
<th>Relevance</th>
<th>Environmental impact/reason</th>
<th>Environmentally relevant activities and machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2 emissions (except for electricity)</td>
<td>high</td>
<td>Climate relevance</td>
<td>Heating, vehicle fleet, shipping logistics</td>
</tr>
<tr>
<td>Material used</td>
<td>high</td>
<td>Consumption of natural resources, climate relevance, use of soil, water consumption, waste</td>
<td>Design and development, production, Suppliers’ energy consumption, emissions and waste, shipping logistics</td>
</tr>
<tr>
<td>Electricity consumption</td>
<td>average</td>
<td>Climate relevance</td>
<td>Lighting, compressed-air generation, suction, IT hardware</td>
</tr>
<tr>
<td>Solvents (VOCs)</td>
<td>low</td>
<td>Health</td>
<td>Upholstery dept.</td>
</tr>
<tr>
<td>Waste</td>
<td>low</td>
<td>Health, emissions/water/soil protection</td>
<td>Production, offices</td>
</tr>
<tr>
<td>Water</td>
<td>low</td>
<td>Drinking water conservation, waterway conservation, water usage</td>
<td>Powder coating, sanitation areas Oil and hazardous substances warehouse</td>
</tr>
</tbody>
</table>

The overview lists the environmental aspects and their impact relevant to Wilkhahn in descending order of importance.
At Wilkhahn, social and environmental aspects are systematically captured and assessed to a defined standard.

Carbon dioxide and solvent emissions at the Bad Münder site were halved.

Wilkhahn ensures that sustainable standards are adhered to in the supply chain.

Resources are conserved due to the modular design of the products and the use of recycled materials.

### Social sustainability aspects

What’s more, Wilkhahn strives to achieve exemplary social standards in its own production facilities and in the supply chain. To do so, Wilkhahn regularly assesses health and safety and health management systems and audits that other social criteria are kept too by suppliers as well. The organizational basis is provided by the framework agreement concluded with international trade unions to promote environmental protection and employee rights in 2009.

To assess the environmental aspects, Wilkhahn frequently analyzes data and produces key performance indicators from these.

Some of this data are:
- The monthly and annual energy consumption by the production department and offices
- The quantities of sustainably generated energy consumed
- The share of renewables in total energy consumption
- The annual emissions of carbon dioxide and solvents
- Electricity consumption and increasing energy efficiency
- Annual material consumption, divided into key material types
- Waste generated annually, divided up into hazardous and non-hazardous waste as well as the quantities and proportion of remaining materials recycled
- The number of environmental and safety incidents
- The degree to which the defined sustainability goals have been achieved

The data are regularly discussed between the CTO, the head of quality management and sustainability and the other managers of the areas of the company shown in the spreadsheet. The criteria identified requiring action and priority in terms of the environment are as follows:
- Full compliance with compulsory regulations (Environmental law)
- Avoiding harmful impact on the environment under normal conditions
- Reducing environmental risks in emergencies by taking suitable precautionary measures
- Voluntarily reducing avoidable impact on the environment in harmony with the company’s business requirements in the long term

Depending on the area of the company, individual effects on the environment are rated with a number between 1 and 9 and allocated low, average or high priority. In green, amber and red, the traffic light system on this page shows the areas of the company that the relevant environmental effects have been identified for. The purpose of this matrix is to ensure that concrete steps are taken in the case of areas with high or average improvement potential as part of the Sustainability Program of Action (page 32).
Activities and machinery relevant to the environment

Sewing and upholstery departments
Right up until today, sewing, upholstering and covering seating are manual jobs in chair manufacture. Experience, dedication and precision are required every step of the way to achieve a perfect result. The seat cover with its underlying foam body and the load-bearing seat shell are connected with each other during the upholstery process. When covering task and visitor chairs, Wilkhahn uses sophisticated made-to-measure covers which, depending on the range and model, have reinforced layers and non-wovens to provide cushioning.

Wilkhahn covers have an exceptional eco-friendly design. In many areas, precise and long-lasting stitching prevents the use of adhesives. Piping and deep top stitching to create contours guarantee the upholstered sections stay comfortable. Should a cover become worn and torn after a long period of heavy use, the chair’s useful life can be extended in an eco-friendly manner by simply replacing the cover.

Wilkhahn chooses adhesives that comply with stringent health and safety requirements and are approved based on the European regulations for hazardous substances. Solvents from adhesives are an important health and safety aspect. However, because of the low quantities emitted from just approx. 15 kg of solvents per day, they play a minimal role in environmental protection at Wilkhahn. Smart product design means Wilkhahn only uses very little adhesive and keeps to emission-protection regulations, despite the rising amount of adhesives used in the upholstery department every year. Further environmental aspects of upholstering are moderate energy consumption due to ventilation and compressed-air-driven tools.
Before powder varnishing, each part is checked to ensure the surface is perfect and other quality characteristics have been complied with.

**Steelwork department**
Frame parts are made for standard and customized tables in the Wilkhahn steelwork department. Processing the metals made of steel alloys and aluminum involves cutting, drilling, turning, welding and grinding. Low levels of emissions (welding gases) and noise occur in the process.

Environmental aspects that need to be taken into account here are energy consumption and the safe storage of oils, grease and cooling lubricants.

**Powder coating**
The powder-coating machine at the Wilkhahn headquarters in Bad Münder coats various metal components such as table frames, tubes and star bases with different colors to suit customer preferences and protects them from corrosion at the same time.

Before the varnishing powder is applied, the metal parts are checked to ensure they are in perfect condition before they are cleaned in the water basin. After degreasing and rinsing in the water basin, industrial drying follows and the powder is then fired at 190°C.

The machine’s energy consumption is therefore the key environmental aspect. The process water required and its proper disposal are also major environmental aspects.

Over the last few years, Wilkhahn has invested in enhanced insulation of the sheds and optimized heating circuits to cut down on heat loss. For years, aqueous waste has been reduced to the absolute technical minimum by recycling and treating the cleaning water.

The consumption of powder varnish was improved further by a new control system for the machinery and a new suction system in 2013. Virtually all superfluous varnishing powder can be recovered and used again directly. Altering...
Energy and heating technology

At the Bad Munder site, Wilkhahn operates a photovoltaic plant, two solar-thermal power plants and other small combustion systems for liquid and gaseous fuels. Since 2012, a district heating pipe has been supplying the Wilkhahn headquarters in Bad Munder with climate-neutral heat from biogas, which is generated in a neighboring biogas plant.

By regularly maintaining and inspecting the systems, sulfur dioxide and nitrogen oxide emissions constantly fall below the statutory thresholds (in line with section 1 BImSchV – The Federal Emissions Protection Act). Emissions of SO₂ and NOₓ are comparatively low. Pollutants in the air have been cut drastically since eco-friendly heat from district heating has been used. Which is why the Wilkhahn environmental management system considers them environmental aspects of secondary importance. Wilkhahn places huge emphasis on permanent limitation of carbon dioxide emissions by maximizing the proportion of heat from district heating and employing energy-efficiency measures.

Sustainability in the supply chain

Wilkhahn’s principle of fairness doesn’t just end at its own factory gates, but now continues via exemplary manufacturing conditions in the supply chain. Wilkhahn consequently signed a framework agreement in 2009 with international unions. which primarily fosters good working conditions and employee rights based on the principles of the International Labor Organization (ILO) of the United Nations.

Wilkhahn has developed and nurtured long-standing business relationships with its partners for many years. Clear technical specifications and an open style of communication ensure that product quality and the safety of production processes are always possible when collaborating with selected suppliers.

Wilkhahn always expects the same high level of professionalism and quality from its suppliers and ensures that its principles on protecting the environment and fairness vis-à-vis employees are adhered to. Wilkhahn performs regular on-site audits to make certain the health and safety and level of environmental protection comply with legal requirements at least. The top 20 suppliers are regularly subjected to an integrated supplier assessment. In the process, suppliers can stand apart if they have a certified environmental or health and safety management system, or proved their ability to perform via on-site audits.

Over the past three years, Wilkhahn has carried out regular audits on suppliers’ premises. The upshot was that all top 20 suppliers and all new suppliers complied with the sustainability requirements. The supplier audits will also be continued in the Sustainability Program of Action over the coming three years.

the coating color is now possible without changing the powder chamber, therefore further slashing energy consumption. Powder varnishes used at Wilkhahn contain practically no solvents or heavy metals.

Table assembly

About 15,000 tables are assembled at headquarters in Bad Munder annually. Alongside a wide array of standard frames and table top formats, Wilkhahn also assembles customized tables. In this case, the most relevant environmental aspect is the use of materials for parts of frames and table tops, which have been made and varnished externally by specialized partners since 2020. Wilkhahn carries out complex incoming goods audits to ensure that table tops are only assembled if they comply with customers’ specifications. What’s more, recyclable packaging is applied so that the tables reach customers in perfect condition.

Other environmental aspects are moderate energy consumption for lighting and electrically operated manual tools and devices.

Chair assembly

About 160,000 task and visitor chairs are assembled annually. The assemblies and single components used are supplied by upstream departments, such as the powder coating and upholstery departments at headquarters, or by external suppliers via the material warehouse. Key environmental aspects are energy consumption for lighting, electrical and compressed-air-powered ergonomic assembly aids and hand-held tools, as well as the energy consumption of the vehicles used to transport the materials and finished chairs. Overall, the environmental impact of chair assembly is very moderate.
**Delivery and shipping logistics**

The regional, domestic and international transport associated with supplying materials and shipping products consumes energy and causes emission of carbon dioxide, fine dusts and nitrogen oxides. If reconcilable with the requirements of international customers, Wilkhahn uses truck, rail-bound and seaborne transportation, which cause fewer greenhouse-gas emissions than planes.

Wilkhahn improves the emissions associated with transport in the supply chain by optimizing drivers’ routes and increasing the loading capacity per truck. Wilkhahn collaborates with logistics partners who use energy-efficient vehicles that produce low quantities of harmful substances (the Euro 5 exhaust gas standard at least). For deliveries from key suppliers, Wilkhahn also increasingly encourages returnable packaging to reduce material and energy consumption even further.

When shipping Wilkhahn office furniture to international customers, Wilkhahn only uses the maximum packaging required for items to be delivered reliably to the customer. In addition to dust-protection sheets made of recyclable polyethylene and appropriately sized cardboard boxes, blankets and wood-based materials are frequently chosen.

**Wilkhahn vehicle fleet**

The Wilkhahn vehicle fleet consists mainly of sales reps’ cars and Wilkhahn’s customer service team’s vehicles. Special vehicles like fork lift trucks are also part of the mix. All Wilkhahn cars comply with the Euro 6 exhaust gas standard at least and most have eco-friendly extras such as automatic start-stop systems or enhanced aerodynamics.

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![Sustainability included: Wilkhahn developed a special attachment at the back to send its ON® task chair range on its journey throughout the world. The knock-down dispatch method produces a compact size that cuts transport-related emissions.](Image)

**Material purchase according to regions**

Based on: Material purchasing figures 2019, Wilkhahn headquarters

- Germany without the EU 58%
- European Union 39%
- Overseas 3%

At the Bad Münster headquarters, the feedstock required for manufacturing is primarily purchased regionally. Way over half the materials come from suppliers in Germany, a further third comes from specialized partners in Europe. Only a small proportion of the feedstock is procured very far away.
Sustainability goals and sustainability performance

Since the Wilkhahn supervisory board’s groundbreaking resolution in 1989 that if in doubt ecology and social responsibility were to be valued more highly than a fast profit, Wilkhahn has been developing impressive office furniture that stands apart for practical innovations, appealing and also sustainable design. To Wilkhahn, sustainability primarily means preventing any negative impact on the environment and society as far as possible and if financially feasible. Wilkhahn summarizes this integral component of corporate culture in its vision of “design that improves lives sustainably”.

Wilkhahn has integrated ecological and social criteria into its core business. At its Bad Münder headquarters, Wilkhahn has followed an integrated sustainability management system that is compliant with the international ISO 9001, ISO 14001 and EMAS standards, with the latter extended to include social aspects to ensure continual improvement. With the framework agreement to further environmental protection and employee rights, which has been around since 2009, Wilkhahn is also systematically looking at fairness within the increasingly international supply chains. And with product chain certification to FSC® standards, which has been in place since 2013, Wilkhahn is also focusing on transparency in trading with wood from responsible forest management.

As part of the Sustainability Program of Action, Wilkhahn defines concrete sustainability objectives and consistently implements actual improvements. The following information and graphics outline the successes scored and obstacles faced in 2017 to 2019.

By using renewables and taking energy-saving steps, Wilkhahn has halved the carbon footprint at the Bad Münder headquarters from 4,000 to 2,000 tonnes per year.

Since 2012, district heating generated from biogas has ensured that year for year, 250,000 liters of heating oil didn’t have to be burnt.

Energy-efficiency measures reduced electricity consumption by 20%.

Since 2018, 4,000 items of returnable packaging have replaced lots of disposable packaging from suppliers.

The raw materials left over from production at the Wilkhahn headquarters are valuable resources. Over 98% are recycled.

The fire-extinguishing pool created at the Wilkhahn headquarters in Bad Münder provides protection and a habitat for water birds and other wild animals.

Environmental performance at the Wilkhahn headquarters in Bad Münder has been continually improved over the past years.


**Renewable energy**  
In 2019, 45 percent of the energy required at Wilkhahn headquarters came from renewable energy resources. The energy sources used, biomass, solar-thermal and photovoltaic power, supplied as much energy as 300,000 liters of heating oil.  

Forty percent of the electricity bought came from renewable energy sources and 47 percent of the heat used was generated in a climate-neutral manner from biogas. Compared with previous years, the proportion of biogas district heating was increased by optimizing the multi-boiler control system, but the 50 percent target was narrowly missed.

**Results of the 2017–2019 Sustainability Program of Action**  
Over the past three years, Wilkhahn has implemented the Sustainability Program of Action’s measures as shown. The CO₂ emissions and electricity consumption, as well as solvent emissions were reduced again at Wilkhahn headquarters.

<table>
<thead>
<tr>
<th>No.</th>
<th>Goal</th>
<th>Measure/comment</th>
<th>Status</th>
<th>Date</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Protecting the climate, CO₂ avoidance: Replace fossil fuels used for heating the Bad Münder site by renewable energy (by at least 50 percent from 2016)</td>
<td>Use CO₂-neutral district heating generated from biogas and maximize its share in total heating requirements. Fitting of a new heat exchanger to increase the proportion of CO₂-neutral district heating from biogas</td>
<td>Implemented</td>
<td>2019</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>2</td>
<td>Implement a system to use renewable energy (by at least 50 percent from 2016)</td>
<td>Reduce consumption of heating oil and the associated CO₂ emissions by 5% by integrating an external warehouse. Continue to cut absolute power consumption of Wilkhahn vehicle fleet by introducing energy-efficient vehicles with low exhaust emissions</td>
<td>Implemented</td>
<td>2019</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>3</td>
<td>Protecting the climate, CO₂ avoidance: Replace fossil fuels used for heating the Bad Münder site by renewable energy (by at least 50 percent from 2016)</td>
<td>Reduce consumption of heating oil and the associated CO₂ emissions by 5% by integrating an external warehouse. Continue to cut absolute power consumption of Wilkhahn vehicle fleet by introducing energy-efficient vehicles with low exhaust emissions</td>
<td>Implemented</td>
<td>2019</td>
<td>Vehicle fleet manager</td>
</tr>
<tr>
<td>4</td>
<td>Reduce consumption of heating oil and the associated CO₂ emissions during shipments</td>
<td>Draw up a concept for using electric and hybrid vehicles.</td>
<td>Implemented</td>
<td>2018</td>
<td>Management appointee</td>
</tr>
<tr>
<td>5</td>
<td>Reduce consumption of heating oil and the associated CO₂ emissions during shipments</td>
<td>Logistics services provides appointed use energy-efficient and low-emission vehicles (at last Euro 5 exhaust gas standard).</td>
<td>Implemented</td>
<td>2018</td>
<td>Material management head</td>
</tr>
<tr>
<td>6</td>
<td>Reduce consumption of heating oil and the associated CO₂ emissions during shipments</td>
<td>By optimising tours, the loading volume per lorry used will be increased to at least 80% by 2018.</td>
<td>Implemented</td>
<td>2018</td>
<td>Material management head, chief operations officer</td>
</tr>
<tr>
<td>7</td>
<td>Improve the efficiency of the vehicle fleet</td>
<td>Better packaging units and sizes allow safe and volume-optimized dispatch.</td>
<td>Implemented</td>
<td>2018</td>
<td>Product development, process planning, material management</td>
</tr>
<tr>
<td>8</td>
<td>Energy efficiency in these cases:</td>
<td>Use LED lighting in selected production areas.</td>
<td>Implemented</td>
<td>2018</td>
<td>Head of works technology, company technicians</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Draw up and implement an energy-efficient lighting concept for the Wilkhahn showroom in Bad Münster.</td>
<td>Implemented</td>
<td>2018</td>
<td>Head of works technology, company technicians</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Replace older compressed-air compressors with new energy-efficient ones. Measure implemented.</td>
<td>Implemented</td>
<td>2017</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Check compressed-air devices regularly for leaks.</td>
<td>Implemented</td>
<td>2019</td>
<td>Head of works technology, company technicians</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>Implemented</td>
<td>2019</td>
<td>Material management head</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>Implemented</td>
<td>2017</td>
<td>Chief operations officer</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>Implemented</td>
<td>2019</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>16</td>
<td>Sustainable supply chain: make regular checks on the top 20 suppliers re quality, health and safety and environmental protection as well as fair working conditions.</td>
<td></td>
<td>Implemented</td>
<td>2019</td>
<td>Quality control, management appointee</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Maintain chain-of-custody certification in line with the specifications of the Forest Stewardship Council® (FSC).</td>
<td></td>
<td>Implemented</td>
<td>2019</td>
</tr>
<tr>
<td>18</td>
<td>Encouraging sustainability in the supply chain, fairness and health.</td>
<td>Carry out regular health days at the Bad Münster headquarters.</td>
<td>Implemented</td>
<td>2019</td>
<td>Company health management team</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Maintain and develop health-boosting programmes for Wilkhahn employees.</td>
<td></td>
<td>Implemented</td>
<td>2019</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Continued support of the dwarf beech initiative to protect biodiversity.</td>
<td>Implemented</td>
<td>2019</td>
<td>Management appointee</td>
</tr>
</tbody>
</table>
By installing a larger heat exchanger and optimizing heat control while saving energy, the proportion of climate-neutral heat is to be increased to 66 percent by 2021.

**Emissions**

In 2019, 2,015 tons of carbon dioxide were emitted at the Bad Münner headquarters, 1,712 tons of which went to supplying the production department and offices with light, heat and electricity. The slight rise compared with the previous year reflects that 2019 had more cold days when heating was required.

A further 303 tons of carbon dioxide were emitted by the Wilkhahn vehicle fleet in 2019. The goal of cutting their CO₂ emissions by 20 percent compared with the 2013 reference year was easily reached. Overall, CO₂ emissions were decreased by 33 percent.

The steep decline in emissions was, on the one hand the result of the customer service department restructuring. Last year, due to more efficient tour planning, Wilkhahn’s vehicle fleet clocked up around 400,000 kilometers fewer than in 2013. What’s more, the average emission per vehicle was cut by 10 percent to 195 g CO₂/km. In this case, regular investments in new, energy-efficient cars are paying dividends because their start-stop functions and improved aerodynamics mean they are particularly low on emissions. Since 2017, Wilkhahn has also been using vehicles with electric and hybrid drives.

**Electricity consumption**

Absolute electricity consumption fell below 2,000 megawatt hours for the first time at Wilkhahn headquarters in Bad Münner in 2019. This translates to an absolute saving of 13 percent compared with the 2013 reference year. Relative to sales, efficiency even increased by 22 percent.

This was achieved by fitting LED lighting in some areas of the production department and the Wilkhahn showroom, replacing old compressed air compressors with new efficient ones and optimizing control of the compressors with each other. As two upholstery departments were merged and table manufacturing was restructured, the central supply/exhaust air system with its big, old electric motors was taken out of service.

Wilkhahn’s office furniture is produced with a low solvent content and doesn’t emit any harmful quantities of volatile organic compounds.

Adhesives are avoided in upholstery as far as possible by using mechanical fixtures instead.

Regular tests to Greenguard® standards verify that Wilkhahn office furniture meets the very high demands of indoor air quality.

**Solvents (VOCs)**

Organic solvents are used in cleaning agents, varnishes or adhesives etc. Due to their ability to evaporate quickly, they make processing times short and production quality high. Organic solvents (or VOCs for short) are however critical and require safe working conditions, which Wilkhahn provides by taking a range of organizational, technical and personal protective measures. For example, high-performance extraction systems prevent the generation of solvent concentrations harmful to health in the workplace.

Last year, five tons of organic solvents were emitted into the environment at the Wilkhahn headquarters in Bad Münner. This equals a drop of 20 percent compared with the previous year. Table top manufacturing was responsible for approx. 1.7 tons and chair upholstery for 3.3 tons of organic solvent emissions from adhesives. Therefore, the statutory emissions threshold of 15 tons of VOCs per year was more than complied with as regards varnishing and gluing in 2019 too. Due to the low quantities, no negative environmental impact is to be expected.
Transport packaging
Wilkhahn only uses transport packaging made of nontoxic materials that are easy to recycle. The quantity of packaging required is also selected so that it is fit for purpose. Boxes or wooden crates are used for overseas transport so that the high-quality office furniture reaches the customer safely and in perfect condition. On the other hand, Wilkhahn only uses protective film made of polyethylene (PE) and lightweight boxes for shipping in Europe. The proportion of particularly eco-friendly packaging from renewable materials was 80 percent last year and the remaining 20 percent was attributable to PE films with recycling capability.

Waste materials and substances and recycling
In 2019, 380 tons of waste materials were produced at Wilkhahn’s Bad Münder site. With comparable production quantities, the total quantity dropped by 34 percent compared with 2017. This is primarily the result of the reusable containers in the supply chain used since 2018. A total of 5,600 of these robust reusable containers were purchased, which prevent large numbers of boxes, wooden pallets and other single-use materials from being used to ship parts.

About a third (29 percent) of the total was attributed to scrap wood including sawdust from table top manufacturing and pallets. At 32 percent, cardboard and cardboard boxes accounted for a high proportion and, at 22 percent, commercial waste was also significant. At 15 tons, the proportion of hazardous waste was again under five percent.

The proportion of recyclable waste materials was at a pleasingly high level last year. In total, it was possible to recycle 97 percent of waste in terms of the materials or heat occurring from production and offices.

Material used
The efficient use of materials in many Wilkhahn task and visitor chairs is already apparent in the understated design and also manifests itself in comparatively low weights. An IN office task chair with Trimension® only weighs about 16 kg. The stackable Aula chair, launched in 2018, is even lighter. Depending on the model, it only weighs about 6 kg.

A lot of Wilkhahn office furniture is so hard-wearing and maintenance-friendly that it lasts and lasts. Therefore, Wilkhahn gives an extended 5-year guarantee for many product families and goes way beyond the two-year guarantee period legally required. If task chairs or conference tables are used for a long time, the materials applied to make them are used more efficiently too.

Wilkhahn processes approx. 3,000 tons of material at its headquarters annually. Aluminum and steel account for 40 percent of this figure. Many components are made of metals, some of which have been recycled. Some of the aluminum components Wilkhahn purchases even consist entirely of recycled material. Some 35 percent of the material is plastic, above all, polypropylene and polyamide. Wilkhahn wants to increase the proportion of recycled materials here over the next few years.

The materials used also mean that energy is required indirectly to manufacture and transport the parts. Environmental aspects in the supply chain, such as waste or emissions, are also indirectly linked with the material used. Which is why Wilkhahn will, in future, be looking more closely at optimizing the Wilkhahn supply chains.

Water, soil, biodiversity
There was no negative impact on the water, soil or biodiversity at the Wilkhahn headquarters in Bad Münder. Water at the Bad Münder headquarters is primarily used for sanitation and only a very small proportion as process water for powder coating. Maintenance is carried out regularly on all machinery that could impact the water and soil and checked to ensure compliance with statutory regulations.

With its green spaces, ecologically designed fire-extinguishing pool and little fruit orchard, Wilkhahn headquarters in the primarily rural area of Bad Münder have a particularly natural appeal. No new soil sealing has occurred over the past 20 years. Wilkhahn also supports a regional initiative to save the dwarf beech (Fagus sylvatica var. suentelensis) from extinction. In the future, green spaces are to be turned into flower orchards to create better habitats for insects.

1 The Wilkhahn guarantee policy can be downloaded at www.wilkhahn.com.
Sustainability programme of action

For many years, sustainability at Wilkhahn has meant much more than developing innovative, long-lasting and well-designed office furniture by using eco-friendly materials and production methods. The new Programme of Action for More Sustainability is based on Wilkhahn’s approach that business success can only be achieved long term if we are fair to people and the environment.

The action programme will run from 2020 – 2022 and aims to achieve improvements in climate protection, energy- and water-efficiency and in sustainability of the supply chain and fostering good health. Because there’s still room for improvement, even in things that are good already.

<table>
<thead>
<tr>
<th>No.</th>
<th>Goal</th>
<th>Measure/comment</th>
<th>Status</th>
<th>Date</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Climate-friendly heating: From 2020, at least 60% of the heat required at the Bad Münster headquarters will come from renewables</td>
<td>Draw up a concept to decrease the district heating’s return temperature, to be implemented in 2021</td>
<td>Started</td>
<td>2020</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>2</td>
<td>Use heating energy efficiently: – heating requirements at the Bad Münster headquarters</td>
<td>Use the existing solar-power systems (to help generate hot water), integrate an outside warehouse into the main plant.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>3</td>
<td>– Heat cuts by 8% compared with 2019.</td>
<td>Continue to cut emissions from the Wilkhahn vehicle fleet through low-emission, energy-efficient vehicles.</td>
<td>Started</td>
<td>2020</td>
<td>Vehicle fleet manager</td>
</tr>
<tr>
<td>4</td>
<td>Encourage green modes of transport, avoid emissions: – A 5% reduction of CO₂ emissions from the vehicle fleet compared with 2019.</td>
<td>Draw up a usage concept so that the Wilkhahn charging stations can also be used by Wilkhahn co-workers</td>
<td>Started</td>
<td>2020</td>
<td>Head of quality and sustainability</td>
</tr>
<tr>
<td>5</td>
<td>– Maintain chain-of-custody certification in line with the specifications of the Forest Stewardship Council® (FSC) and increase the proportion of FSC-certified products.</td>
<td>Logistics partners are only to use energy-efficient, low-emission vehicles (EURO 5 emission standard or higher).</td>
<td>Started</td>
<td>2021</td>
<td>Material management head</td>
</tr>
<tr>
<td>6</td>
<td>– Encourage a high degree of ecological and social responsibility in Wilkhahn’s production facilities and partners in the supply chain.</td>
<td>Analyze outgoing shipments to increase the loading volume by at least 10%.</td>
<td>Started</td>
<td>2022</td>
<td>Logistics manager</td>
</tr>
<tr>
<td>7</td>
<td>– Carry out a social audit with trade union representations to implement the ILO core work standards at the Wilkhahn plant in Poznan and at a further supplier’s premises.</td>
<td>Dismantle the central suction system and convert to single, local suction systems</td>
<td>Started</td>
<td>2021</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>8</td>
<td>– Foster chain-of-custody certification in line with the specifications of the Forest Stewardship Council® (FSC) and increase the proportion of FSC-certified products.</td>
<td>Replace fluorescent strips with LED lighting in some areas of table and chair assembly.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>9</td>
<td>– Encourage a high degree of ecological and social responsibility in Wilkhahn’s production facilities and partners in the supply chain.</td>
<td>Cut grid pressure by 1 bar, take a compressor out of service.</td>
<td>Started</td>
<td>2021</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>10</td>
<td>– Improve the flow of information systems'</td>
<td>Green IT - dismantle a physical server and integrate an energy-efficient, external cloud server.</td>
<td>Started</td>
<td>2021</td>
<td>Head of information systems</td>
</tr>
<tr>
<td>11</td>
<td>– Encourage a high degree of ecological and social responsibility in Wilkhahn’s production facilities and partners in the supply chain.</td>
<td>Green office - reduce existing single workstation printers by at least 30%, replace with energy-efficient and resource-friendly multi-functional devices.</td>
<td>Started</td>
<td>2020</td>
<td>Head of information systems</td>
</tr>
<tr>
<td>12</td>
<td>– Improve the flow of information systems'</td>
<td>Dismantle the central suction system and convert to single, local suction systems</td>
<td>Started</td>
<td>2021</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>13</td>
<td>– Improve the flow of information systems'</td>
<td>Replace fluorescent strips with LED lighting in some areas of table and chair assembly.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>14</td>
<td>– Improve the flow of information systems'</td>
<td>Cut grid pressure by 1 bar, take a compressor out of service.</td>
<td>Started</td>
<td>2021</td>
<td>Head of works technology</td>
</tr>
<tr>
<td>15</td>
<td>– Improve the flow of information systems'</td>
<td>Green IT - dismantle a physical server and integrate an energy-efficient, external cloud server.</td>
<td>Started</td>
<td>2022</td>
<td>Head of information systems</td>
</tr>
<tr>
<td>16</td>
<td>– Improve the flow of information systems'</td>
<td>Green office - reduce existing single workstation printers by at least 30%, replace with energy-efficient and resource-friendly multi-functional devices.</td>
<td>Started</td>
<td>2021</td>
<td>Head of information systems</td>
</tr>
<tr>
<td>17</td>
<td>– Improve the flow of information systems'</td>
<td>Dismantle the central suction system and convert to single, local suction systems</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>18</td>
<td>– Improve the flow of information systems'</td>
<td>Replace fluorescent strips with LED lighting in some areas of table and chair assembly.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>19</td>
<td>– Improve the flow of information systems'</td>
<td>Cut grid pressure by 1 bar, take a compressor out of service.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>20</td>
<td>– Improve the flow of information systems'</td>
<td>Green IT - dismantle a physical server and integrate an energy-efficient, external cloud server.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
<tr>
<td>21</td>
<td>– Improve the flow of information systems'</td>
<td>Green office - reduce existing single workstation printers by at least 30%, replace with energy-efficient and resource-friendly multi-functional devices.</td>
<td>Started</td>
<td>2022</td>
<td>Head of works technology, Company mechanics</td>
</tr>
</tbody>
</table>
## Material and energy flows: input/output

### Input

<table>
<thead>
<tr>
<th>Raw materials and consumables (t)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferrous metals</td>
<td>574.7</td>
<td>626.3</td>
<td>519.8</td>
</tr>
<tr>
<td>Aluminum</td>
<td>642.3</td>
<td>597.8</td>
<td>566.5</td>
</tr>
<tr>
<td>Zinc</td>
<td>36.2</td>
<td>32.7</td>
<td>28.6</td>
</tr>
<tr>
<td>Wood / composite wood</td>
<td>345.1</td>
<td>358.6</td>
<td>322.2</td>
</tr>
<tr>
<td>Plastics</td>
<td>853.5</td>
<td>960.4</td>
<td>997.4</td>
</tr>
<tr>
<td>Textiles/upholstery materials</td>
<td>18.9</td>
<td>47.0</td>
<td>76.4</td>
</tr>
<tr>
<td>Leather</td>
<td>19.1</td>
<td>13.4</td>
<td>14.2</td>
</tr>
<tr>
<td>Transport packaging (cardboard/wood)</td>
<td>348.3</td>
<td>270.8</td>
<td>243.6</td>
</tr>
<tr>
<td>Transport packaging (plastics)</td>
<td>51.3</td>
<td>50.1</td>
<td>59.6</td>
</tr>
<tr>
<td>Powder varnishes</td>
<td>5.9</td>
<td>5.2</td>
<td>7.7</td>
</tr>
<tr>
<td>Fuels (heating oil, diesel)</td>
<td>346.8</td>
<td>330.2</td>
<td>330.7</td>
</tr>
</tbody>
</table>

### Energy – production and management (MWh)

| Heat                              | 5,290 | 5,355 | 5,505 |
| Electricity                       | 2,223 | 2,172 | 1,926 |
| Total energy consumption          | 7,513 | 7,528 | 7,431 |

### Water (m³)

| Water (sanitation, process water) | 3,745 | 3,910 | 3,363 |

### Output

<table>
<thead>
<tr>
<th>Residues and waste (t)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial municipal waste</td>
<td>89.4</td>
<td>88.0</td>
<td>72.7</td>
</tr>
<tr>
<td>Paper/cardboard</td>
<td>137</td>
<td>128.7</td>
<td>111.1</td>
</tr>
<tr>
<td>Wood/sawdust</td>
<td>164.4</td>
<td>116.7</td>
<td>108.9</td>
</tr>
<tr>
<td>Ferrous metals</td>
<td>28.9</td>
<td>17.9</td>
<td>14.8</td>
</tr>
<tr>
<td>Aluminum</td>
<td>26.8</td>
<td>7.1</td>
<td>4.4</td>
</tr>
<tr>
<td>Packaging film</td>
<td>12.7</td>
<td>6.1</td>
<td>7.7</td>
</tr>
<tr>
<td>Leather</td>
<td>21.5</td>
<td>9.4</td>
<td>5.8</td>
</tr>
<tr>
<td>Textiles/upholstery materials</td>
<td>0.8</td>
<td>5.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Mixtures containing solvents (VOCs)</td>
<td>1.4</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Aqueous waste, halogen-free treatment emulsions</td>
<td>33.6</td>
<td>11.2</td>
<td>9.5</td>
</tr>
<tr>
<td>Others</td>
<td>8.6</td>
<td>9.0</td>
<td>28.3</td>
</tr>
<tr>
<td>Total residues and waste</td>
<td>525.1</td>
<td>400.2</td>
<td>368.3</td>
</tr>
<tr>
<td>proportion of hazardous waste</td>
<td>43.4</td>
<td>18</td>
<td>15.3</td>
</tr>
</tbody>
</table>

### Energy from renewable sources (%)

| Heat                              | 38    | 44    | 47    |
| Electricity                       | 25    | 30    | 40    |
| Total                            | 34    | 40    | 45    |

### Emissions (t)

| Carbon dioxide (CO₂) Production and offices | 2,057 | 1,665 | 1,712 |
| Carbon dioxide (CO₂) Mobile (vehicle fleet) | 261   | 287   | 303   |
| Solvents (VOCs)                      | 6.8   | 6.1   | 5.0   |
| Dusts (PM)                           | <0.01 | 0.01  | 0.01  |
| Nitrogen oxide (NOₓ)                 | 0.25  | 0.6   | 0.6   |

### EMAS core indicators

<table>
<thead>
<tr>
<th>Total value creation (EUR millions)</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions</td>
<td>79.5</td>
<td>64.7</td>
<td>65.3</td>
</tr>
<tr>
<td>Energy efficiency (MWh/million euros)</td>
<td>290.5</td>
<td>292.6</td>
<td>283.6</td>
</tr>
<tr>
<td>Material efficiency (t/million euros)</td>
<td>98.8</td>
<td>99.5</td>
<td>96.4</td>
</tr>
<tr>
<td>Total consumption of feedstock and supplies</td>
<td>112.0</td>
<td>115.1</td>
<td>43.9</td>
</tr>
<tr>
<td>Total waste</td>
<td>20.3</td>
<td>15.6</td>
<td>53.5</td>
</tr>
<tr>
<td>Hazardous waste</td>
<td>1.7</td>
<td>0.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Water (m³/million euros)</td>
<td>144.8</td>
<td>152.0</td>
<td>128.4</td>
</tr>
</tbody>
</table>
This report is drawn up based on the EMAS regulations and following the standards on sustainability reporting specified by the Global Reporting Initiative (GRI). The following table shows which pages of this sustainability report contains information that complies with standardized GRI descriptions. The column on the left shows the GRI standard referred to. The content matter relevant to EMAS has been validated by an independent environmental expert.

<table>
<thead>
<tr>
<th>General standard information</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational profile</strong></td>
<td></td>
</tr>
<tr>
<td>102-1 Company’s name</td>
<td>4, 36</td>
</tr>
<tr>
<td>102-2 The most important brands, products and services</td>
<td>4</td>
</tr>
<tr>
<td>102-3 Company’s head office</td>
<td>4</td>
</tr>
<tr>
<td>102-4 Countries with major operations</td>
<td>4</td>
</tr>
<tr>
<td>102-5 Legal form and owner structure</td>
<td>4</td>
</tr>
<tr>
<td>102-6 Key markets</td>
<td>4</td>
</tr>
<tr>
<td>102-7 Company’s size</td>
<td>4</td>
</tr>
<tr>
<td>102-9 Description of the supply chain</td>
<td>27</td>
</tr>
<tr>
<td>102-11 Implementation of the precautionary principle</td>
<td>22–23</td>
</tr>
<tr>
<td>102-12 Support to external initiatives</td>
<td>19–31</td>
</tr>
<tr>
<td>102-13 Memberships</td>
<td>19</td>
</tr>
<tr>
<td><strong>Strategy and analysis</strong></td>
<td></td>
</tr>
<tr>
<td>102-14 Declaration by the top decision maker</td>
<td>1</td>
</tr>
<tr>
<td>102-15 Central sustainability effects, risks and opportunities</td>
<td>22–32</td>
</tr>
<tr>
<td><strong>Ethics and integrity</strong></td>
<td></td>
</tr>
<tr>
<td>102-16 Values, principles and codes of conduct</td>
<td>2–7, 18–19</td>
</tr>
<tr>
<td>102-17 Ways of fostering and demanding ethical conduct</td>
<td>19</td>
</tr>
<tr>
<td><strong>Corporate management</strong></td>
<td></td>
</tr>
<tr>
<td>102-18 Management structure incl. committee of the highest controlling body</td>
<td>15, 16</td>
</tr>
<tr>
<td>102-19 Delegation of responsibility</td>
<td>15, 16</td>
</tr>
<tr>
<td>102-20 Executive responsibility for economic, ecological and social issues</td>
<td>15, 16</td>
</tr>
<tr>
<td>102-21 Involving stakeholders in economic, ecological and social issues</td>
<td>15, 16</td>
</tr>
<tr>
<td>102-22 Delegation of responsibility</td>
<td>15, 16</td>
</tr>
<tr>
<td><strong>Reporting procedure</strong></td>
<td></td>
</tr>
<tr>
<td>102-45 List of the consolidated companies</td>
<td>4</td>
</tr>
<tr>
<td>102-50 Reporting period</td>
<td>1</td>
</tr>
<tr>
<td>102-52 Reporting cycle</td>
<td>36</td>
</tr>
<tr>
<td>102-53 Contact for questions about the report</td>
<td>36</td>
</tr>
<tr>
<td>102-54 Option to comply with the GRI and index chosen</td>
<td>34</td>
</tr>
<tr>
<td>102-55 GRI Content Index</td>
<td>34</td>
</tr>
</tbody>
</table>
### Specific standard information

<table>
<thead>
<tr>
<th>Specific standard information</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economy</strong></td>
<td></td>
</tr>
<tr>
<td>Aspect: Financial performance – management approach</td>
<td>4, 5</td>
</tr>
<tr>
<td>201-1 Direct value creation</td>
<td>4, 33</td>
</tr>
<tr>
<td>201-4 Central sustainability effects, risks and opportunities</td>
<td>22–32</td>
</tr>
<tr>
<td><strong>Ecology</strong></td>
<td></td>
</tr>
<tr>
<td>Topic: Materials – management approach</td>
<td>6–7, 22</td>
</tr>
<tr>
<td>301-1 Materials used according to weight or volume</td>
<td>30, 33</td>
</tr>
<tr>
<td>Topic: Energy-management approach</td>
<td>22</td>
</tr>
<tr>
<td>302-1 Energy consumption in the company</td>
<td>33</td>
</tr>
<tr>
<td>302-3 Energy intensity</td>
<td>33</td>
</tr>
<tr>
<td>302-4 Reduction of energy consumption</td>
<td>29–31, 33</td>
</tr>
<tr>
<td>Topic: Water – management approach</td>
<td></td>
</tr>
<tr>
<td>303-1 Water extraction by source</td>
<td>31, 33</td>
</tr>
<tr>
<td>303-3 Recycled and re-used water</td>
<td>31, 33</td>
</tr>
<tr>
<td>Topic: Emissions – management approach</td>
<td></td>
</tr>
<tr>
<td>305-1 Direct greenhouse gas emissions (scope 1)</td>
<td>31, 33</td>
</tr>
<tr>
<td>305-4 Intensity of the greenhouse gas emissions</td>
<td>33</td>
</tr>
<tr>
<td>305-5 Reduction of the greenhouse gas emissions</td>
<td>28, 29, 33</td>
</tr>
<tr>
<td>305-6 Nitrogen oxide emissions (NOx), sulphur oxides (SOx), and other relevant air pollutants</td>
<td>30, 31, 33</td>
</tr>
<tr>
<td>Topic: Sewage and waste – management approach</td>
<td></td>
</tr>
<tr>
<td>306-2 Waste according to type and treatment</td>
<td>31, 33</td>
</tr>
<tr>
<td>306-4 Transport of hazardous waste</td>
<td>31, 33</td>
</tr>
<tr>
<td>Topic: Compliance with ecological regulations – management approach</td>
<td>16</td>
</tr>
<tr>
<td>307-1 Noncompliance with environmental laws and regulations</td>
<td>16</td>
</tr>
<tr>
<td>Topic: Environmental assessment of suppliers – management approach</td>
<td></td>
</tr>
<tr>
<td>308-1 Number of new suppliers whose environmental criteria have been checked</td>
<td>27</td>
</tr>
<tr>
<td><strong>Social issues</strong></td>
<td></td>
</tr>
<tr>
<td>Topic: Employment – management approach</td>
<td>18, 19</td>
</tr>
<tr>
<td>Topic: Employer-employee relations – management approach</td>
<td>3, 18, 19</td>
</tr>
<tr>
<td>Topic: Health and safety – management approach</td>
<td>4, 20–21</td>
</tr>
<tr>
<td>403-1 Number of staff in health and safety committees</td>
<td>21</td>
</tr>
<tr>
<td>Topic: Training – management approach</td>
<td>18</td>
</tr>
<tr>
<td>404-3 Number of employee with regular performance appraisals and career planning</td>
<td>18</td>
</tr>
<tr>
<td>Topic: Diversity and equality – management approach</td>
<td>3, 19</td>
</tr>
<tr>
<td>Topic: Combating corruption – management approach</td>
<td>3</td>
</tr>
<tr>
<td>Topic: Customer health and safety – management approach</td>
<td>10–13</td>
</tr>
<tr>
<td>416-1 Number of key products and services that were health and safety tested</td>
<td>10, 13</td>
</tr>
</tbody>
</table>
With its EMAS-validated and ISO 14001 certified environmental management system, Wilkhahn is taking responsibility for sustainably protecting our environment.

In the consolidated environmental statement that covers 2020 – 2022, Wilkhahn reports on the company’s environmental performance and other aspects of sustainability.

The next update will be published in April 2021.

This brochure is available in German and English in print and as a PDF to download from the Wilkhahn website.

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Published by: Wilkhahn
Responsible for the content:
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Concept development, editing, copywriting and layout:
Jörg Hoffmann, Burkhard Remmers
Photos: Thomas Bach, Juan José Cánovas Castillo, Martin Mai Photography, Vojislav Nikolic, Dieter Leistner, Klemens Ortmeier, Frank Schinski, Ludwig Schoepfer & Philip Bartz, Ilona Surrey, Wilkhahn, Mandy Will
Project management and production: scherrer.