

Wilkhahn

2011

Consolidated Environmental Statement





Dear readers,

Over 100 years ago, my grandfather founded Wilkhahn with his brother-in-law Christian Wilkening. Back then the company's passion for material and manual skills was already building a reputation for outstanding quality. After the war, my father masterminded the company's new approach and he laid the foundations for our corporate culture as it exists today. I grew up in an age when social responsibility and environmental protection were issues very much talked about in the family. I was present when the Wilkhahn administrative board signed the agreement in 1989 to make environmental responsibility a corporate goal.

My active period in the company dates back to 1993 and I have been at its helm since 2000. Wilkhahn's involvement in the world exhibition EXPO 2000 was a high point in my father's lifework. At the same time, it typified my own approach to business: to strike the right balance between financial requirements, socio-ecological responsibility and our contribution to culture in the workplace. At the time, we had already presented the first interactive room environments with integrated communications technology. These were stepping stones to highly contemporary developments today. With ground-breaking, transportable, foldable tables, we changed the world of conference rooms and communication styles in businesses. With our office chair ON, we have created a new industry benchmark for healthy dynamic seating. We developed the first four-legged, multi-purpose chair for industrial production. With cutting-edge manufacturing procedures, drawn from auto technology, the chair combines a fascinating design with precision, light weight and a minimalist approach to materials.

These developments went hand in hand with numerous socio-ecological system and process innovations which you can read about on the following pages. Very close to my heart was to get all the international sales companies and subsidiaries actively involved in linking further internationalisation with a strategy development process. The results were presented in a transparent form for all Wilkhahn employees worldwide. What we do, how and who we do it for and what values we are guided by has been a joint process: "Responsible furniture for a professional life".

Design is a question of attitude and something we believe applies to all areas, to both products and processes. Therefore, our "design made in Germany" claim stands for more than just excellent product design. It embraces the integrated approach of modernism which includes socio-ecological aspects. People-focused and useful product design, efficient usage of resources, climate protection, global fairness and long-term protection of our livelihood are the current challenges we are presented with. They govern the way we do business.

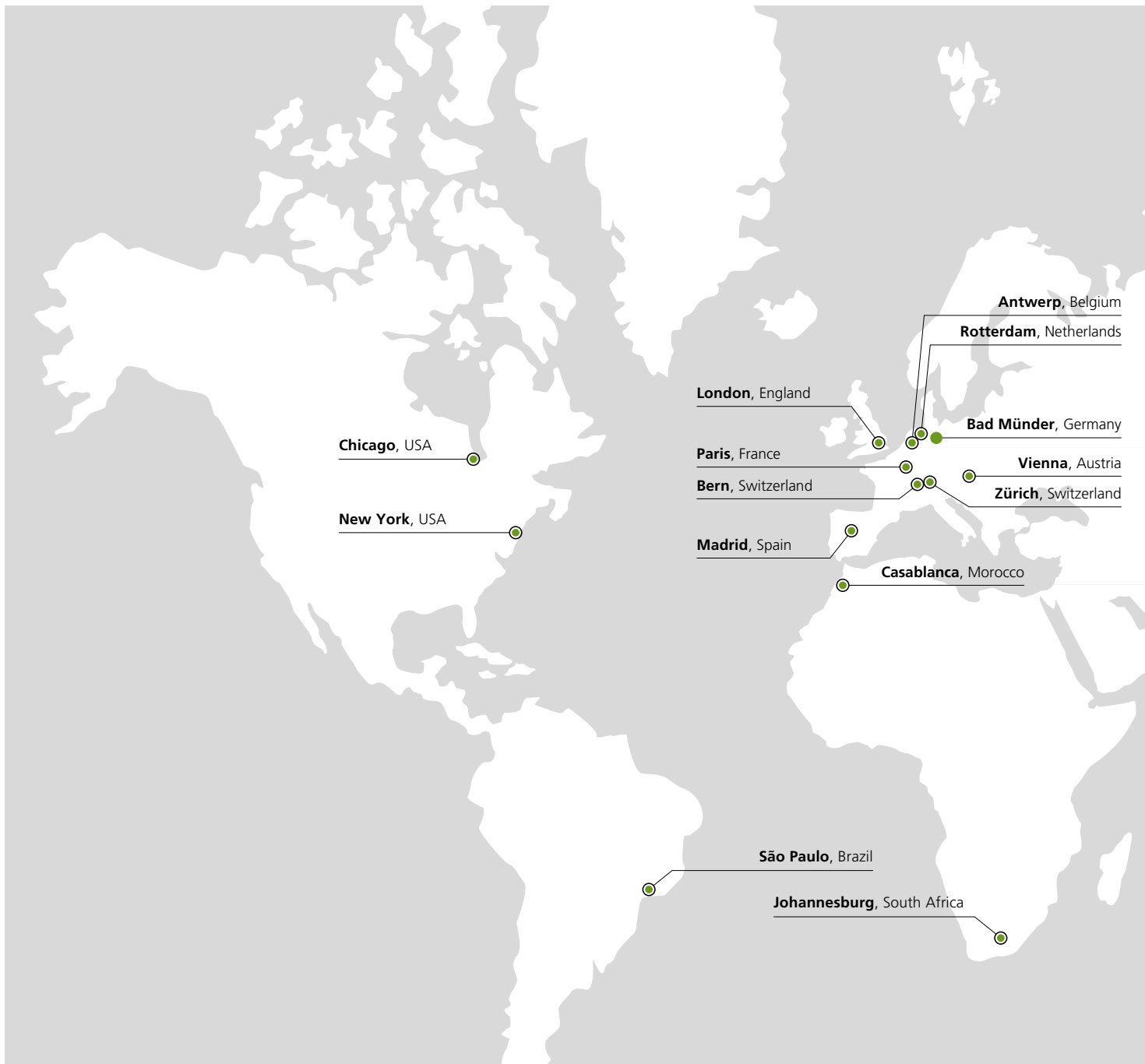
This environmental declaration will provide further details and report on what we have achieved. We will outline our basic principles, milestones, actual steps taken, the status quo and future objectives. We welcome the increasing number of international comrades-in-arms and customers. People who share our convictions and in many different ways want to encourage a better design of spaces to live and work in. – And this is something we are proud of. Despite the fast pace of global developments, ethical business practices in the very best tradition are still possible. I would like to end on that note and hope you enjoy reading the following pages.

A handwritten signature in black ink, appearing to read "Jochen Hahne". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dr. Jochen Hahne
President

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A premium company and global player

The company's core competencies are product development, manufacturing and selling high-quality furniture and fittings for the home and workplace. These skills are based on an approach to design that is modern, with innovative functionality and high quality at its core. At the same time, Wilkhahn has an ecological mindset. By providing durable, timeless products we make a vital contribution to protecting resources. Wilkhahn ranges furnish the following areas:

- Work (dynamic office chairs, executive offices, project offices)
- Conference (conference, meetings, seminars, workshops)
- Relaxation (waiting and reception areas, bistros and relaxation spaces)

In 2010, 554 employees produced sales of 80.6 million euros, 75 percent of which was in international markets.

The family-run company is privately owned. About 25 percent of the shares belong to current and former employees who have been part of a profit-sharing scheme as sleeping partners since 1971. They are represented by the works council chairperson who has a seat and vote on the Wilkhahn administrative board which comprises major shareholders and external experts.

The company has production facilities at the headquarters in Bad Münde (main factory), in Castellon in Spain and Sydney in Australia. World wide sales are made through Wilkhahn's own subsidiaries and sales offices in Antwerp, Auckland, Bern, Brisbane, Chicago, Dubai, Hong Kong,



Cologne, Kuala Lumpur, London, Luxembourg, Madrid, Melbourne, New York, Paris, Rotterdam, Shanghai, Singapore, Sydney, Vienna, Warsaw and Zurich. We also have retail and export partners, as well as licensed partners in Tokyo, Casablanca and Johannesburg.

Wilkhahn's headquarters are located on a 100,000m² site, 25,000m² of which is covered by buildings with a floor space of 33,000m². The site with its admin buildings and production halls has been continually developed over the company's over one-hundred-year history.

Today, production capacity is geared to 100,000 office swivel chairs, 120,000 visitor and conference chairs, as well as 30,000 tabletops and table systems per year. Chair manufacturing processes include cutting and sewing covers, upholstery and assembly. Table manufacturing comprises cutting tabletops, making edges, table surfaces (laminated, linoleum, veneer) and if necessary integrating modern

communications technology, as well as (partial) assembly. Specialist and skilled suppliers make the industrially pre-fabricated components (for example textiles, seat shells, backrest frames, mechanical parts, chair frames, table legs, profiles, underframes etc). Our in-house powder-coating machinery applies the coloured coating to metal elements.

Wilkhahn has holdings in wiege Entwicklungsgesellschaft mbH (design studio), Foresee GmbH for Human Active Spaces (Roomware®), as well as Wilkhahn Energie GmbH.

More than just furniture – corporate responsibility over the ages.

Foundation

In 1907, brothers-in-law Friedrich Hahne and Christian Wilkening founded their own joinery near Bad Münden. At the time, around 100 companies used the beech from the Deister and Süntel valley to make chairs. The region was considered one of the hubs of German chair manufacture. The joinery grew and soon a factory was built for large-scale production of quality solid chairs to the bourgeois taste of the time.

After the Second World War, the founders' sons, Fritz Hahne and his cousin Adolf Wilkening, took over management of the company. After being a prisoner of war, one of them returned aged 27 after ten years as a soldier with new ideas for a better and more peaceful world. The other was much older and had gained in-depth experience as a talented engineer in industrial production. Together they totally repositioned the company.

1950–1990 New approach

Product design and markets ...

By working closely with post-war architects influenced by Bauhaus, Wilkhahn turned into a pioneering company for modern furniture design. New materials like steel and plastic entered production, combined with design devoted to the maxims of modernism. In the 1950s and 1960s the cornerstones for sustainable product design were primarily laid thanks to the partnership with the newly founded Ulm University of Design. "The goal is to develop durable products, increase their utility value and reduce waste." This was the objective in Ulm University of Design's founding manifesto. In the following decades it became the guiding principle of Wilkhahn product development and was repeatedly implemented in many areas.





The classic office chair range FS Line by Klaus Franck and Werner Sauer (shown in the picture) created a new benchmark for healthy dynamic seating.

The design principles were above and beyond quickly outdated fashion fads and won international acclaim. Soon the export business began to boom and was systematically built up over the following decades. It was primarily due to the FS-line office chair range, the milestone in healthy dynamic seating, that Wilkhahn was able to establish itself internationally as a premier manufacturer of design-driven, high-quality office furniture.

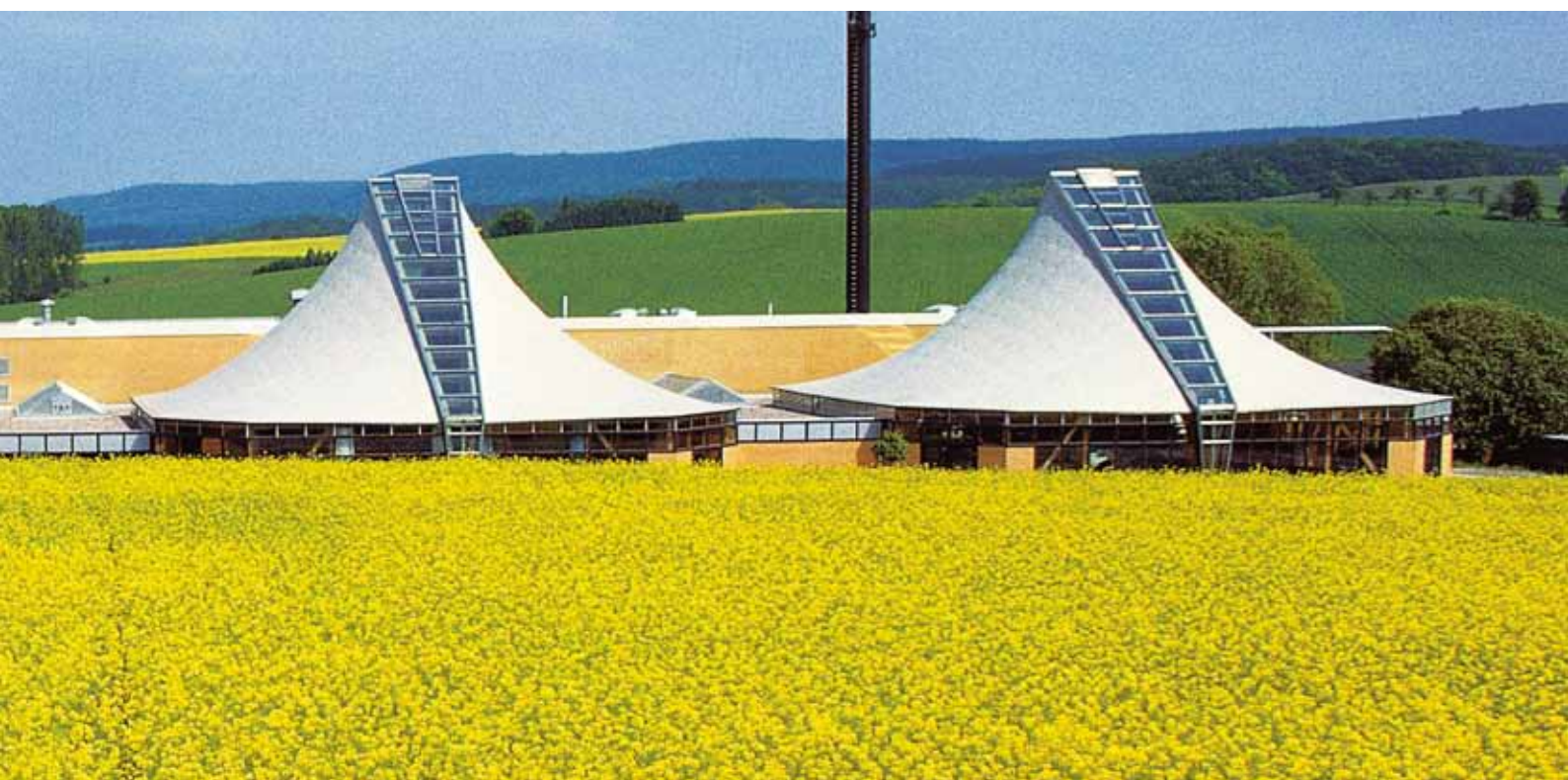
... Employee focus ...

It was also Fritz Hahne who contributed his ideas for a new type of inter-personal relationships in the country. "Don't give orders without a reason" stood for a new management style that was shaped by regard and respect for employees, regardless of their social ranking and position in the company. Our adoption of social responsibility was evident back in the 1950s, when affordable company loans were given to employees wishing to building homes. The company pension scheme was also introduced. Co-operative management and profit sharing caused quite a stir in the outside world. Within the company itself, it encouraged high levels of motivation and identification of people with Wilkhahn.

... Architecture and ecological change.

In the 1970s and 1980s, ecological concerns increasingly became the third pillar of Wilkhahn's corporate culture. The Club of Rome's credos and socio-political debates on environmental protection and nuclear power heightened awareness that we as a company needed to take responsibility actively. Together with architect Professor Frei Otto, four pioneering manufacturing pavilions were built. They were constructed on the principle that at Wilkhahn "no bricks were to be laid before it was clear whether the building was a sound economical prospect, aesthetically durable and eco-friendly. It must also help make the world of work better for people".

In 1989, ecological change was decided by the administrative board and became an integral part of the company's goals. Wilkhahn also became an industry pioneer in this field. The next factory extension was designed in 1992 by architect Thomas Herzog and became a visible symbol of the change in values. It had living roofs, smart usage of daylight and a porch where high-tech solar technology was used for the first time.



1990–2000 Creating a green Wilkhahn

In line with its aim to take product responsibility from the cradle to the grave, Wilkhahn implemented eco criteria in the design and development process. The Picto office chair was presented in 1992 and became an example of ecologically responsible product design. – And an environmental controlling and waste management concept was produced and implemented for the first time worldwide in the office furniture industry. With “projects guide companies” as its slogan, the management team and employees created participation-driven ways of working, such as group and project work which were launched in the whole company. In this context, the ISO 9001 quality management system was also established at Wilkhahn.



As part of the EXPO 2000 World Exhibition, one of the production pavilions, designed by Frei Otto, was turned into a project and exhibition area.

In addition to many other awards, in 1996 Wilkhahn was the only company at the time (and till the present day) to win the prestigious German Environmental Prize from the German Environmental Foundation for its corporate responsibility concept. In the satellite project entitled “The future of work in the conflict between people, nature, technology and market” during EXPO 2000 in Hanover, the host of interactions between innovation, social responsibility, ecological responsibility and business success were displayed to a wide section of the global public. In a scientific pilot project, Wilkhahn drew up one of the first sustainability reports presented by a medium-sized company called “Wilkhahn’s added values”.



2000 Transformation for the future

Co-responsibility ...

The corporate responsibility concept proved its worth in times of crisis too, as the global recession following the 9/11 terrorist attacks showed. With an agreement to maintain the site as a manufacturing base and to safeguard jobs, conditions were generated in order to survive the crisis without layoffs. Many of the stipulations at the time were adopted in the industry’s collective wage agreements in Germany.

... Employee involvement...

Despite difficult parameters at the start, investments were made in expanding corporate responsibility. The European environmental management system EMAS was introduced, the company pension scheme restructured and investments were made in innovative product developments and new markets. In 2007 the company invited all their staff, their families, retired employees, friends and companions of Wilkhahn to celebrate the company’s centenary. Around 2,000 people celebrated the past and future together – after all the motto was 100+. In the same year, a strategy development process was started, with global management included, in order to define goals, business fields, corporate organisation and values for the future. After completing the process, the results were announced to everybody at Wilkhahn worldwide in one-day workshops: “Responsible furniture for a professional life”.



... Climate protection and premium claim ...

In 2008 Wilkhahn founded Wilkhahn Energie GmbH with a local farmer. It started up a combined heat and power plant that reduced CO₂ emissions and cut usage of renewable energy sources by 78 percent. At the same time, the most important Wilkhahn ranges received Greenguard®-compliant certification. This stringent American standard certifies indoor air quality and low-emission products. Sustainable investments, for example in a new tabletop varnishing facilities, strengthened Bad Münde as the company's central manufacturing site. It increased reliable quality, encouraged health protection and at the same time achieved further ecological progress with heat recovery.

... Internationalisation and global fairness ...

In 1998, Wilkhahn Asia-Pacific was founded in Sydney. It was created as a sales and manufacturing site in order to tap into new markets. From there, more sales branches were founded in Australia, Hong Kong, Singapore, China and New Zealand. With Wilkhahn Middle East (2005) and Wilkhahn Inc. in 2008 (the latest sales company with headquarters in New York) Wilkhahn today is on all continents and in all major business cities. With its own branches and licensed partners in Japan, Morocco and South Africa, the company can serve its customers world wide at the same level of top quality as it can in Europe. In order to uphold

its responsibility in an increasingly global sales and supplier market, Wilkhahn joined Global Compact in 2008. In 2009 the company also signed a framework agreement with the international trades unions on worldwide recognition and fostering of employee interests.

... Innovations with added value ...

After a five-year development phase and investments of 3.5 million euros, the new office chair range ON® was launched onto international markets in the middle of the global financial crisis and recession. This global innovation with patented Trimension® kinematics encourages synchronously supported three-dimensional dynamic sitting, therefore effectively preventing back pain. It became a Wilkhahn bestseller in year one already. Awarded top international design prizes, including the "Best of NeoCon 2010" and the "German Design Prize 2011", ON quickly became a new international benchmark for healthy seating. It also helped Wilkhahn to buck industry trends in 2010 by achieving over 25 percent growth in sales.



Quality and environmental policy: “Responsible furniture for a professional life”.

Wilkhahn strives for high quality every step of the way. As a globally leading manufacturer of high-quality furnishings that people enjoy working and communicating in, we reaffirm our claim to be a premium manufacturer each and every day. This is thanks to our brand image, distinctive product design including excellent utility quality, first-class manufacturing and our professional advice, quote, logistics and service processes. Wilkhahn inspires enthusiasm world wide thanks to motivated employees and a style of corporate management that is based on values. With “Responsible furniture for a professional life” as our leifmotif, we are highlighting today how Wilkhahn has preserved and continually developed its entrepreneurial approach for the future:

Product design to last is our antidote to the throw-away society. Therefore, Wilkhahn products focus on maximum utility value, durability and protection of resources. This translates into top quality that can be experienced, is consistent and perfect. It incorporates timeless, distinctive design that is fascinating due to its simplicity, honesty and appeal to all the senses. It incorporates useful innovations that really give our customers permanent added value.

Our approach is international. We want to measure ourselves with the best companies in our industry and be a global benchmark for professional quality. We guarantee excellent advice, presentation and availability of the products and services in the relevant markets worldwide. And we consider learning about other cultures to be beneficial and an opportunity for growth by absorbing, reflecting on and adopting global trends and stimuli into our business processes. We work for people all over the world who want to shape their own lives and environments. Our business rationale’s key objective is to support these people’s needs professionally and engender enthusiasm for Wilkhahn and its products again and again.

We believe that **fairness towards people and the environment** belong together. The health of our customers, but also of our employees enjoys high priority. Products are not just safe to use, but also boost mental and physical sense of well-being. The way we work inside and outside the company is driven by openness, responsibility, involvement and partnership. Environmental responsibility starts as early as the design and development phase. Because we ensure long-term, responsible environmental criteria as regards materials, design principles, production technologies, repair-friendliness and recycling. It continues in the production process by reductions in the consumption of resources and energy, emissions and waste. And it covers the supply and after-sales care of the product with customer services regarding transport, assembly, repair and maintenance, right up to recycling. Our environmental and social responsibility is not just restricted to our own sites, but also to our global suppliers, licensing and sales partners who we insist acknowledge global labour standards.

Trust and reliability, listening to customers’ needs, commitment, simplicity, sustainability and the desire for what is new are guiding principles of **Wilkhahn’s corporate culture**. We see these corporate values as joint fundamental convictions that are shared, practised and developed by all employees worldwide. They represent the cornerstones of how we act, particularly regarding our management style.



In February 2009, Wilkhahn and trades unions IG Metall and Building and Woodworkers International (BWI) signed a framework agreement on social responsibility and encouraging employee rights. From left to right: IGM chairman Berthold Huber, Wilkhahn president Dr. Jochen Hahne, BWI general secretary Anita Normark and Wilkhahn works council chairman Ralf Olaf Stender.

Wilkhahn supports the UN Global Compact

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

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.



WE SUPPORT

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 complicit in human rights abuses.

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: eradicate all forms of forced labour,
- Principle 5: stop child labour and
- Principle 6: eliminate discrimination in respect of employment and occupation.

Environmental protection

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

Fighting corruption

- Principle 10: Companies are to combat all types of corruption, including blackmail and bribery.

Design principles.

“Poor and superfluous products stay poor and superfluous, even if they are produced on eco-friendly principles”.

Today there is no lack of products or production capacities – in fact quite the contrary. The world has a surfeit of products that do not entail real progress, whose utility value is doubtful and that are designed to last as short a time as possible from the outset. In other words: products that nobody really needs. Which is why product purpose is paramount to our design principles. The Ulm Design University debated the fundamental association between protection of resources and utility value in its founding manifesto. Durability and increased utility value were seen as the best way of reducing waste. Which is why Wilkhahn product development tries to find the missing link. Even better, Wilkhahn strives to translate it into durable quality in an eco-friendly way and find a timeless design that goes above and beyond passing fads.

The key aim of innovation: to offer real added value

Because in the final analysis quality of usage determines the financial and ecological footprint of a product, methods used in innovation processes play a major role. Initially it is not just about a new chair, but about sitting better, not about the new conference table, but about encouraging inter-personal communication, not about lounge furniture, but about relaxing or creative stimulation. So solutions are achieved that offer real innovations and permanent added value – and these often become new, global standards and classics.

The key aim of quality: to offer real added value constantly

In order to guarantee constant utility value, particular emphasis is placed on durability when selecting materials. Dimensional stability, form-fit capabilities and surface quality must satisfy top demands when it comes to functionality. The performance of the materials determines their sizing and weight of the products. What’s the point of virtually all the product being recyclable if it works less well in the end? As a result, a careful balance is struck between availability, performance, costs and requirements such as are made by material recycling. In addition to quality of materials, particular attention is paid to high-quality manufacturing and smart design principles, repair-friendliness and upgrading the products.

The key aim of design: to offer true added value with a constant aesthetic appeal.

What’s the point of state-of-the-art functionality and consistent quality if a product looks outdated after a short time? Or to put it another way: what shape must the form take to make it timeless? Modernism developed the design principles which are firmly rooted in Wilkhahn: to reduce the formal statement to the key product idea, to make the products and materials look honest and transparent, to provide people-friendly dimensional proportions and dimensions, pleasant haptics and to provide an emotional experience. At Wilkhahn we call this an experience that appeals to all the senses. After all, Wilkhahn products are to accompany their owners and users for a long time, so that they can enjoy them for many years to come.



Responsible furniture

Responsible furniture by Wilkhahn is the antidote to the throw-away society. Therefore, Wilkhahn products focus on maximum utility value, durability and protection of resources.

1. Avoidance – “durability and quality are kings”

is the principle that guides our product development. We achieve this thanks to:

- distinctive, timeless and appealing designs with the potential to become classics;
- Superb materials, surfaces and technical solutions that guarantee quality after many years;
- useful innovations that make life easier and more pleasant in the long term.

2. Reduction – “Less is more”

is more than just a design principle to us:

- 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, for example by using solar power, climate-neutral energy sources (CO₂ reduction) and varnishing technologies low in solvents.

3. The purpose of reusing + recycling

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.
- If possible, we use materials made of one component that are marked as such, making them ideal for recycling.

4. Fairness.

At Wilkhahn, environmental and social responsibility belong together. Health and safety, training, active participation and fair pay for employees have been integral parts of the corporate culture for decades. 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 a framework agreement on global recognition and fostering of employee interests.



International product and material standards.

From the product idea, to defining functions, technical components and features, to choosing suitable suppliers and logistics partners: in terms of product reliability and customer satisfaction we leave nothing to chance. Clear technical standards, independent testing of parts and regular controls are all methods with one goal: to make a lasting impression on our customers by providing responsibly designed and manufactured products.

International product and material standards

In order to offer first-class quality worldwide, Wilkhahn regularly analyses and assesses the requirements that the market places on products and the materials. To deliver innovative, reliable and responsible products, Wilkhahn does not just comply with technical standards, but also with established labelling systems, like the GS symbol, Greenguard®, Oeko-Tex 100 or the Blue Angel.



We pool international market requirements in Wilkhahn's factory standards and complement these, where necessary, with the company's own objectives. In this way we translate our demand for quality, environmental protection and entrepreneurial responsibility into clear technical stipulations. Our material standards are the basis for transparent material management.

Toxic-free textiles for covers

All Wilkhahn's textiles for covers are free of environmentally harmful and unhealthy azo dyes. Wilkhahn also purchases its fabric preferentially from suppliers who have an ISO 14001, EMAS or Oeko-Tex 1000 standard certified environmental management system. The Wilkhahn fabric collection is designed for professional and permanent usage and combines aesthetics with ecological benefits. These include easy-care synthetic fabrics, as well as fine and robust woolen cloth. Because they are not blended fabrics they are easy to recycle at the end of the product life.



Low-emission leather

Leather is a natural material. Nevertheless, depending on how it is made, leather coverings in particular are a source of potentially harmful substances due to their large surface area and durability. Which is why as a standard Wilkhahn offers low-emission RAL-UZ 148 (Blue Angel) leather in the two leather types available. The Blue Angel shown on the German-produced leathers indicates that damage to the environment and health are minimised, from the production stage through the whole product life to recycling and disposal:

- Does not harm health in homes/interiors because it is low in emissions.
- Tested for chrome VI and preserving agents.
- Made using eco-friendly processes, particularly regarding water consumption and waste water criteria.

Timber from responsibly managed forests

Wilkhahn's headquarters in Bad Mnder is surrounded by the high-quality timber in the Weserbergland forests. The quality of the forests (as the company's once most important source of raw materials) raw materials) has remained important to us today too. Therefore most of the timber products are produced regionally and exclusively from wood taken from responsibly managed forests.

This is guaranteed by west European forestry legislation which has been harmonising nature conservation and timber usage since the 19th century. There is a good reason why the term sustainability is drawn from forestry.

We also prefer suppliers who are PEFC or FSC certified. Whether MDF, chipboard or particle board – at Wilkhahn we prohibit the use of timber that has been illegally felled and is protected.

Real-wood veneers

Wilkhahn veneers are fine natural products. Only high-quality trunks are turned into first-class veneer panels. Our experienced team only chooses the best quality.

The majority of Wilkhahn's real-wood veneers also come from regional partners who are PEFC and FSC certified. 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 offering also includes stained and synthetically made real-wood veneers. Therefore, we can also offer responsible alternatives to tropical timber to meet exclusive customer preferences.

Metal coatings

Chromed surfaces are timelessly elegant and extremely durable. In a galvanic refinement process, several extremely thin layers of metals are applied to produce attractive and permanent surfaces. In order to combine these benefits with our high demands on safe products for people and the environment, Wilkhahn's metal coatings are tested to comply with the EN 71-3 European standard. Originally developed as a standard for babies' toys, it stipulates very stringent thresholds for chrome VI and other heavy metals. By regularly checking our suppliers' galvanising processes, we also ensure that environmental stipulations are adhered to with regards to chromium plating.

Wilkhahn also supplies anodised or polished aluminium metals and powder-coated surfaces that are free of solvents and heavy metals and can be made by consuming less energy than comparable galvanic coatings.

Labelling parts and materials

By labelling components and making them easy to disassemble, we are already making sure today that Wilkhahn's product components can (as far as possible) be recycled locally. We take this approach all over the world. Adherence to labelling standards, such as ISO 1043, allows us to recycle materials or dispose of them properly locally. As a result, energy-guzzling and therefore ecologically unsound transportation over long distances is avoided.

Each Wilkhahn product is clearly labelled as a whole. Consequently, the right spare parts can be used and ordered from Wilkhahn customer services for many years to come.



Ecological environmental product information

In the interests of open and transparent information to customers, we publish eco-relevant information on the most important Wilkhahn ranges in easy-to-understand data sheets. These are drawn up according to ISO 14020 et

seq. and (in addition to details on material composition and recycling proportions) also include information on the product's life cycle. The PDF files are available on the "Wilkhahn green" web portal to view and download: www.wilkhahn.com/green



Testing parts and products

At Wilkhahn, internal controls and tests are the keys to making innovative and eco-friendly, high-end products in consistent quality.

Tests on dimensions and mechanical load are carried out in our own lab in accordance with the relevant international standards. As part of the product development process, each product is tested according to pre-determined criteria. This also includes testing ecologically beneficial materials. In order to make no compromises in terms of usage quality and product safety, the same testing specifications apply to all materials. For example, product parts made of materials with a high recycling content must pass the same endurance tests – otherwise there would be no ecological gain.

Checks on incoming goods in compliance with the AQL standard (Acceptable Quality Level) and checks during manufacturing in accordance with documented assembly and checking instructions ensure consistent production quality. Before a product is delivered to the customer, it must pass a final inspection. For conference table systems, layout plans, detailed drawings and surfaces are checked (and if required the multi-media equipment supplied with them) are tested. Even with Wilkhahn swivel chairs,



visual and functional checks on the finished product are an integral part of the quality programme.

External tests

Independent controls guarantee objectivity and make us perform better. Therefore, Wilkhahn regularly adds external testing to its internal system. These inspections include product tests on complete tables and chairs and chemical and physical material tests. For example, we are interested in steady levels of shine on our varnishes, or whether our glues stick properly. Microscopic analyses of metal structures, for example where particularly safety-critical metallic compounds are concerned, are part of the range of tests carried out by external experts.



Greenguard™

Good indoor air quality is important to Wilkhahn. We verify that our products fulfil 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



Wilkhahn Services.

Customised solutions

In terms of solutions, Wilkhahn has always enjoyed thinking outside the box. Whether we are talking about embossing a personal logo onto a seat covering, equipping tables with multi-media systems, or supporting customers with a one-stop shop of contract furnishing planning services. People seeking special solutions will find the right one at Wilkhahn.

After-sales services

Wilkhahn furniture is easy to repair. As a result, the product's life cycle can be extended again and again after many years, for example by exchanging expendable parts or re-upholstering it with the original covers. To Wilkhahn product responsibility means so much more than the functional and formal durability of its products. Eco-friendly recycling and care to extend a product's useful life are also clear priorities. Even after the product has reached the end of its life, we still feel responsible and offer our customers extensive return and recycling services.

Service agreement

The purpose of periodic checks on office swivel chairs as part of service agreements is to ensure they constantly work perfectly and to highlight any potential repairs required.



The agreement includes three visits by customer services over a period of five years.

Maintenance

Our repair price list makes quick and precise quotes possible and applies to all seating ranges. We guarantee repairs for discontinued furniture for at least two years after production has ceased.

Overhaul

After a comprehensive quote, an overhaul is usually carried out in the Bad Münden factory and organised by the local Wilkhahn adviser responsible, or by dealers. Older products that no longer comply with the current technical or formal standard, can be updated on request by the customer, if technically feasible.

Product return, re-using parts and recycling

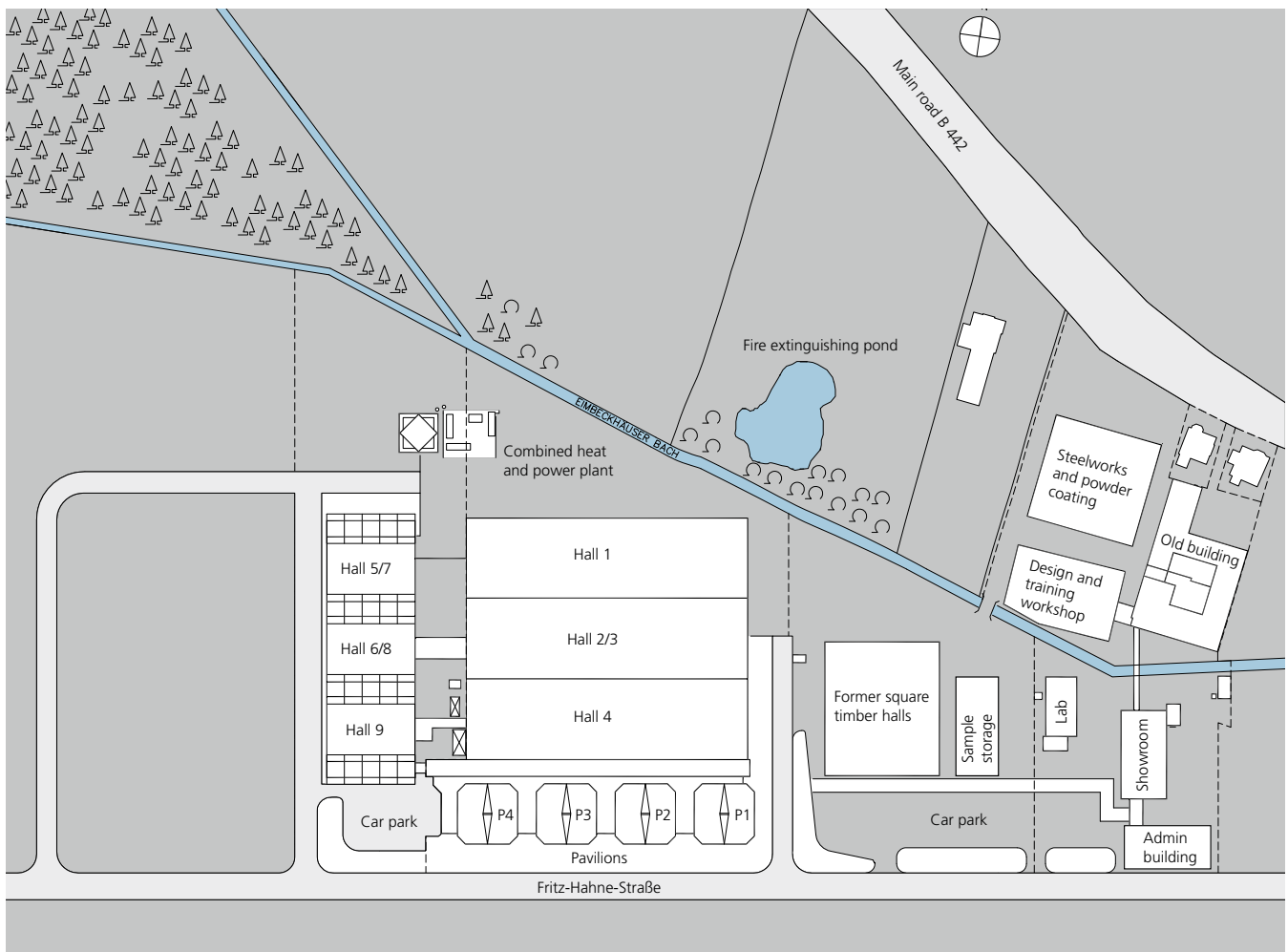
We guarantee that we will take back old products from the FS line and Modus ranges. The chairs are dismantled in the factory, all parts are sorted according to the different materials they consist of and recycled. All other models stated on the repair price list will be accepted on request to the factory. If a new order is placed at the same time, no costs for return of the products will be invoiced (depending on the number of new orders).

Integrated environmental and quality management.

Wilkhahn voluntarily takes part in the European Community for Environmental Management's Community System in accordance with EC regulation no. 1221/2009 (EMAS III). The Wilkhahn headquarters in Bad Münden is registered in the European Community's EMAS site register under D-133-000-55. The EMAS and ISO 14001 environmental management system is part of an integrated management system that also combines ISO 9001 quality management and health and safety management.

Wilkhahn in Bad Münden

Wilkhahn's headquarters are located in north Germany near Bad Münden, about 50 km south west of the state capital of Hanover. Surrounded by woody hills, the landscape in the Deister-Süntel valley offers a vibrant mix of fields, hedges and villages.





Back in 1996, the German Environmental Foundation presented Wilkhahn with an award for its impressive concept. The ecological and socially responsible management style is reflected in the architecture of the plant.

The land the company has occupied since the company was founded in 1907 is about three hectares in size and is part of the business park in Eimbeckhausen. In addition to the production buildings and plants, admin with various other central services is based here, including product development, procurement, marketing, IT systems, controlling and accounts, Human Resources and co-ordination of world-wide sales.

Integrated and neighbouring green spaces with trees, a stream and the pond lend some of the land a high

natural level. In line with article 30 of the German Nature Conservation Act, the pond with its surrounding reeds and marshy meadows is protected as a valuable natural area.

Good transportation links mean that Wilkhahn products can be dispatched quickly all over the world. The site is directly located on highway 442. The A2 motorway is part of the European motorway network and is just a few minutes away. The town of Bad Münder is connected to the regional S-Bahn network in the greater Hanover area.

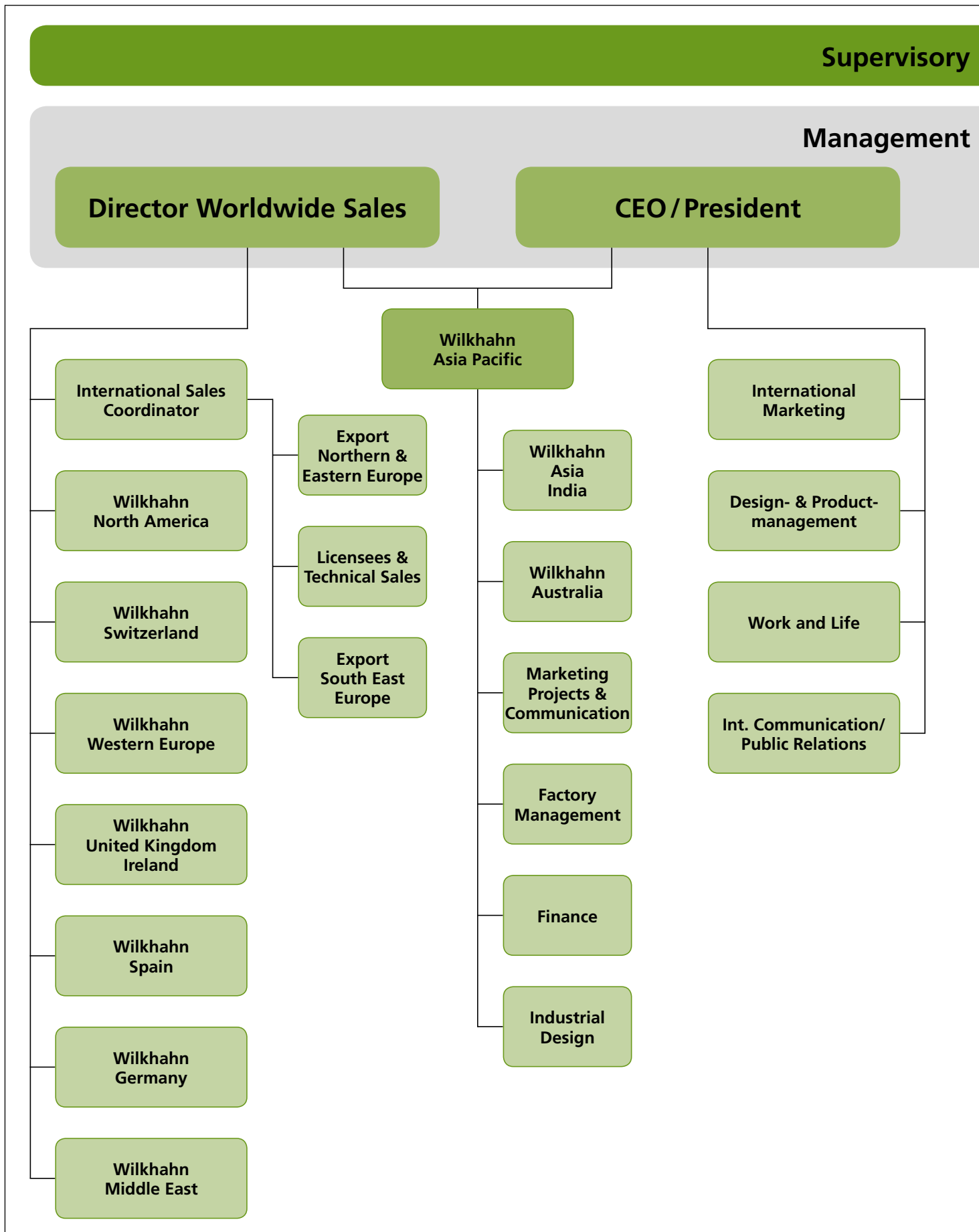


Today, the fire-extinguishing pool, designed on ecological criteria, is a valuable biotope protected by law.

Structure and management

Wilkhahn management assumes overall responsibility for complying with legal requirements in Bad Münden. This responsibility was transferred for key areas of environmental protection and occupational health and safety to the technical manager. In this role he is supported by the head of quality management and factory management, the environmental officer and the occupational health and safety officer.

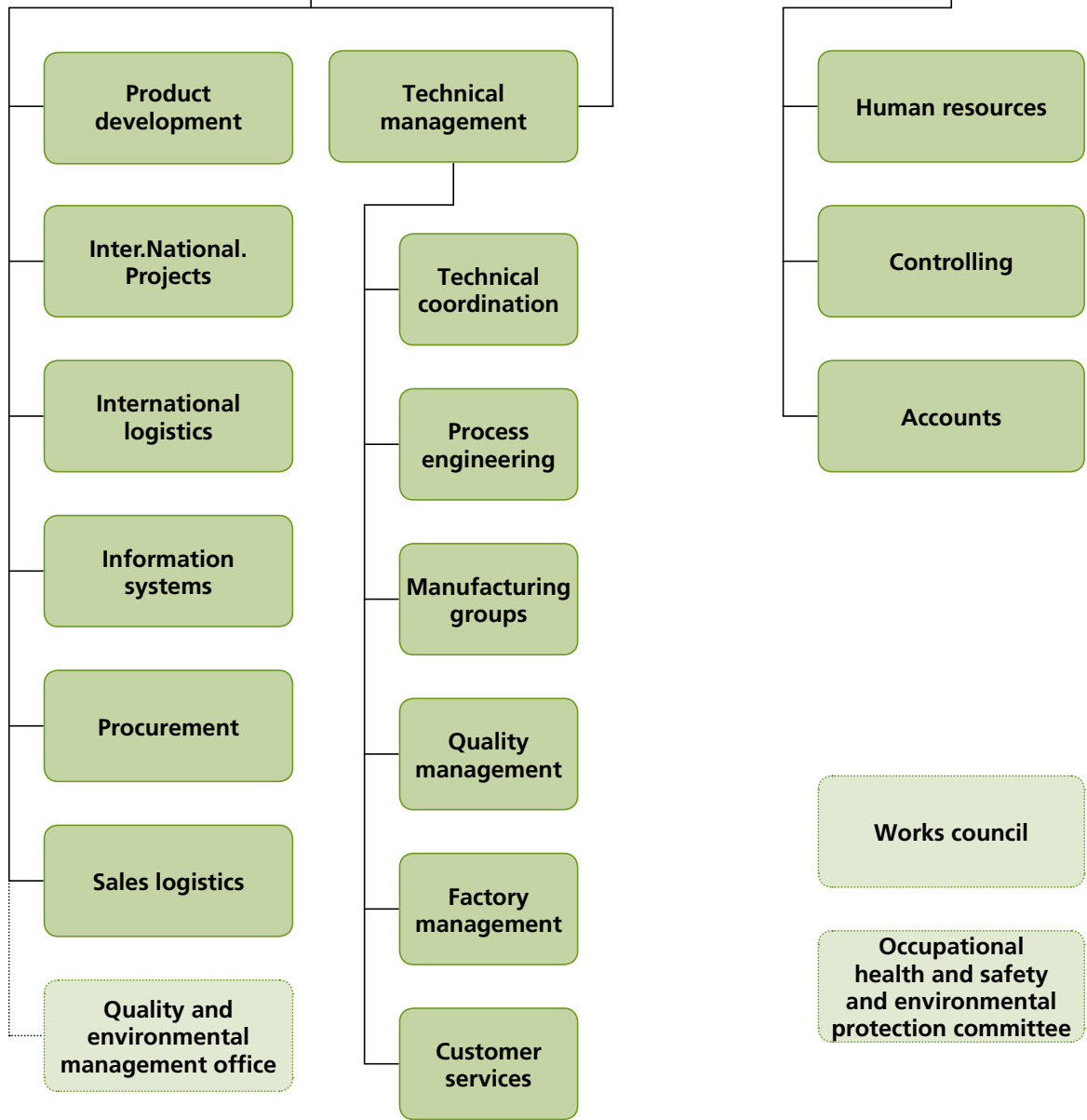
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board

board

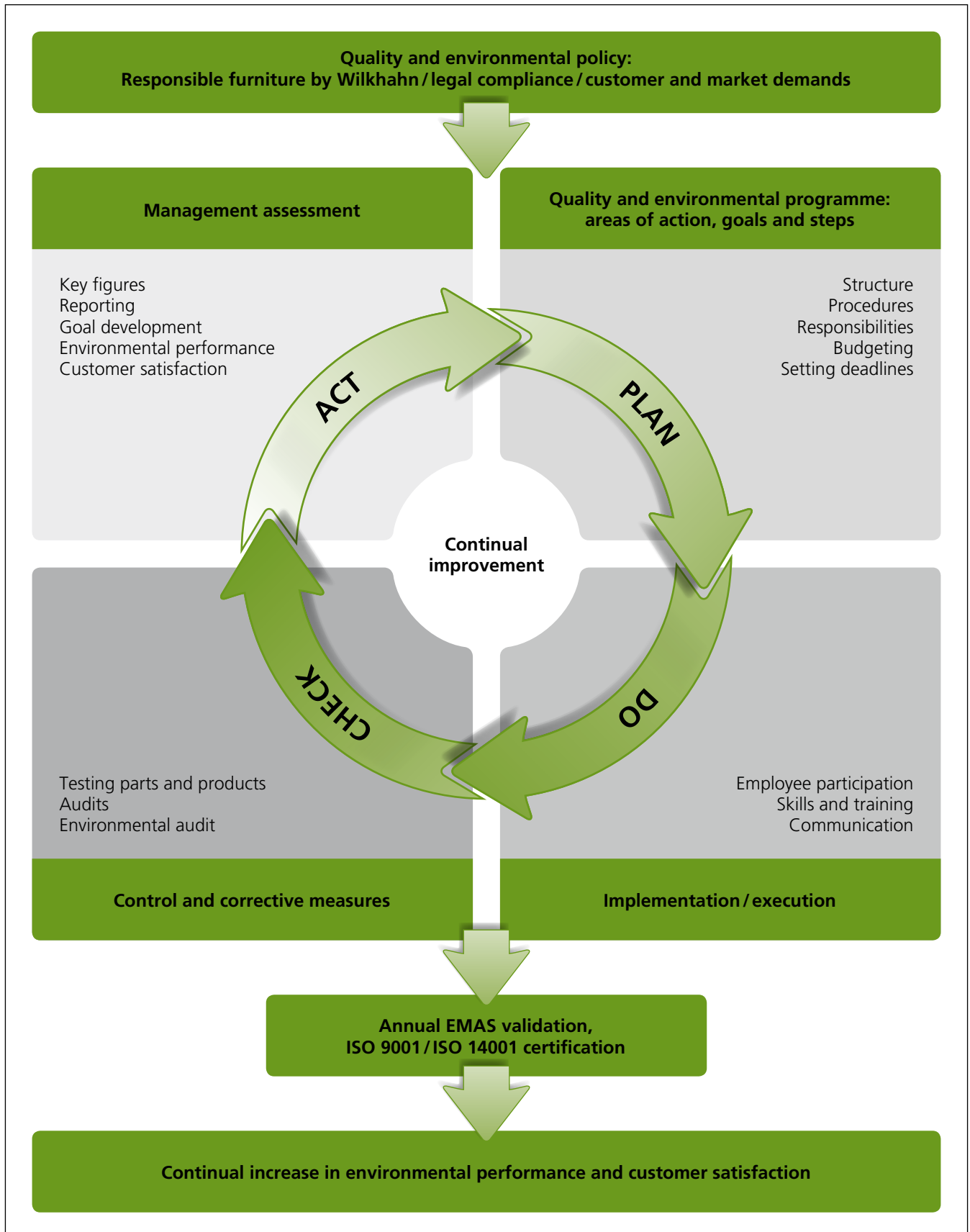
Chief Operating Officer **Chief Financial Officer**



Management review

Constantly improving our environmental performance has been Wilkhahn's key aim and self-evident management responsibility for over two decades. The management regularly provides information on the performance of the integrated management system. As part of these manage-

ment assessments, managers responsible for quality and environmental aspects report on progress of steps taken and improvement potential. The review is based on specific criteria and establishes suitable measures.



Compliance with environmental legislation

Adherence to statutory regulations is a matter of course to Wilkhahn and its staff. With the help of a Web-based data base, the environmental officer monitors amendments to environmental legislation in order to assess their impact on the development, manufacture and dispatch of Wilkhahn products. Legal compliance is regularly assessed in internal audits and when checking suppliers. At frequent intervals, Wilkhahn also organises third-party validated environmental audits. The annual EMAS certificate of registration serves as proof that legal compliance is obtained.



Post box for the company's ideas management system: after all, who is better informed about improvement potentials than employees?

Employee participation

Wilkhahn views the active participation of all employees as a driving force in encouraging continual and successful improvements in the environmental sector. As early as 1996, this concept was laid down in a company agreement between the management and works council. In ecology committees, Wilkhahn employees made use of their rights early on to become involved in environmental protection issues.

Today, the environmental officer, the health and safety officer and Wilkhahn works council are integral parts of the organisation. They continue the work of the previous ad-hoc bodies in a structured manner and organise active involvement through the work and safety and environmental committee which is convened every quarter.

Wilkhahn continues to count on the direct involvement of all employees. Whether it is a question of avoiding risks in the workplace, of new manufacturing technologies, or saving materials and energy – all employees can contribute their ideas for improving Wilkhahn at any time via the company's ideas management process. An important incentive is that any good idea is also rewarded financially according to a transparent procedure.



The "Green" menu on the Wilkhahn website gives information on corporate responsibility, socio-ecological product qualities, eco-friendly production and social responsibility.

Environmental information

Wilkhahn believes that transparent communication is imperative for fairness and pivotal to fostering continual improvements. We share environmental information on our products, our motivation, as well as the milestones and obstacles in our environmental management system with a broad section of the public. We publish information on the Wilkhahn Green portal (www.wilkhahn.com/green), on an online image data base and literature such as catalogues and info cards. Wilkhahn offers expert information on an extranet for dealers too – and in a regular column the employee magazine Wilkhahn Aktuell provides information on local green issues. This offering has been rounded off by the Wilkhahn Global Workplace since 2007 which is an intranet in several languages for about 600 Wilkhahn employees worldwide.



In-company communication to promote a sense of community and transparency in the international Wilkhahn world: the employee magazine "Wilkhahn Aktuell" will in future be published in English too.

Environmental aspects.

In terms of the impact of our activities, we differentiate between direct and indirect environmental aspects of varying importance. Direct impact on the environment is a direct result of our activities, products and services. As these activities are directly controlled by us, we can take technical and organisational measures to make improvements. Some examples include:

- **legislation and market:** statutory regulations, thresholds, standards;
- **air:** emissions into the atmosphere, like CO₂ Volatile Organic Components (VOCs), dust;
- **water:** launching conservation of surface water and water;
- **waste:** recycling, re-usage, transportation and disposal, hazardous wastes;
- efficient material and energy consumption.

Wilkhahn also makes an indirect impact on the environment. These indirect environmental aspects include for example material and energy consumption for exploiting and transporting raw materials, or adhering to environmental legislation within the Wilkhahn supply chain. Even if only some of these aspects can be influenced by Wilkhahn, we endeavour to make improvements during the product

development phase and during procurement. We are guided by the Wilkhahn quality and environmental policy, our commitment to the UN Global Compact principles, our company's framework agreement with unions, as well as product guidelines, as described in the Responsible furniture by Wilkhahn concept.

Assessing environmental aspects

The assessment of Wilkhahn's impact on the environment is based on a whole host of information. Much of this information includes quantitative data, such as in-company analyses on usage of materials and energy, waste production, measured values, testing certificates and other technical information. Standard factors are used to calculate emissions and environmental costs. This quantitative approach is complemented by qualitative assessments. During the analysis, Wilkhahn does not just assume normal operational conditions, but also takes into account possible emergency scenarios, such as fires or floods.

The following overview provides a summary of the key environmental aspects for Wilkhahn. The traffic light system takes into account both the relevance of the environmental aspects and the opportunities to make an impact by taking specific measures. Green boxes indicate low, yellow average and red huge potential for improvement.

Environmental aspect	Corporate areas						Manufacturing areas						Buildings/ machines/ equipment						
	Design management/product development	Marketing/sales/customer services	Procurement	Admin/office jobs	Vehicle fleet	Manufacturing areas	Buildings/machinery/plant equipment	Cutting and sewing workshop	Upholstery workshop	Tabletop manufacture	Table assembly	Steel construction/powder coating	Chair assembly	Logistics/incoming goods/dispatch	Waste air extraction	Compressed air	Heating technology	Varnishing facilities	Hazardous goods storage
Material efficiency	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Green	Green	Green	Green
Energy	Yellow	Green	Green	Yellow	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Green	Yellow	Red	Red	Yellow	Yellow	Green	Green
Emissions	Yellow	Yellow	Yellow	Green	Yellow	Yellow	Green	Yellow	Green	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green
Waste	Green	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Green	Green
Water	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow
Noise	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Yellow	Green	Green	Green	Green	Green
Legislation and market	Yellow	Yellow	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Yellow	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Emergency/risk	Green	Green	Yellow	Green	Green	Yellow	Green	Yellow	Green	Green	Yellow	Green	Green	Yellow	Green	Yellow	Yellow	Yellow	Yellow
Supply chain	Yellow	Green	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Health and safety	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Yellow	Yellow

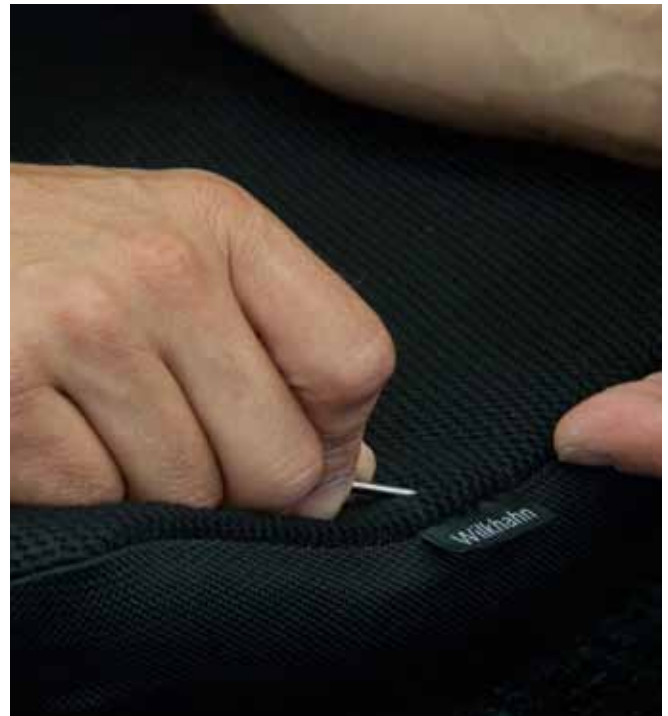
Eco-relevant activities and machinery.

Upholstery workshop

Even today, in the seat production department sewing, upholstering and covering chairs are hand-crafted skills. Experience, dedication and precision at each step of the way are required to produce a perfect result. During the upholstery process, textile covers or leathers are connected with foam bodies and supporting elements like seat shells or frames. For swivel chairs and visitor chairs Wilkhahn uses sophisticated made-to-measure covers. Depending on the range and model, these covers have intermediate layers for extra reinforcement and nonwovens that cushion. This means upholstered parts are therefore joined together permanently and in an eco-friendly manner. Later on covers can be exchanged easily. As a result, Wilkhahn chairs are given a new lease of life after years of use and resources are protected.



Since 1995, the Modus chair range has met top demands on quality and ecology: thanks to precise sewing and fastening method for the piping, virtually no adhesive is required for the upholstery.



The Modus chair's intelligent fastening method means that covers can be exchanged after years of use. As a result, chairs last longer and resources are protected.

But to guarantee the durability of some cover-to-upholstery connections, even the Wilkhahn upholstery department cannot totally do without bonding systems. Emissions of VOCs are an important health and safety issue, but are only of average relevance in terms of environmental protection. By applying adhesives sparingly, creating safe storage rooms and keeping annual consumption under five tonnes, Wilkhahn is able to keep emissions of VOCs at a constantly low level. We safely comply with the statutory emission protection requirements, despite the annual rise in production in the upholstery workshop. Thanks to ecological design specifications, extra environmental steps such as cleaning waste air by after-burning are currently not necessary. Further environmental aspects of upholstery are moderate energy consumption from compressed-air driven equipment and ventilation.

Varnishing workshop

In 2009 Wilkhahn commissioned a new staining and varnishing workshop. The state-of-the-art equipment does not just produce first-class results in table-top varnishing, but also encourages environmental protection and health and safety at the same time. Staining, applying the varnish, varnishing and drying the table tops are carried out in air-conditioned and separate clean-air areas. By making an extra investment in air extraction, two thirds of the heat are recovered.

Computer-controlled mixing and cleaning procedures reduce the waste to a minimum. Compared with the manual preparation of varnishes in the past, varnish consumption is reduced substantially. Nowadays, only the required amounts of varnish-curer are mixed, so that nothing is left over and needs to be disposed of. During the priming process, Wilkhahn uses varnishing systems that cure with UV light. These are virtually free of organic solvents (VOCs) and help provide good health and safety and environmental conditions.

An ideally sized sanding room is available for sanding between multiple applications of varnish. In this case, efficient extraction also makes excellent results and safe working conditions possible. The waste air, polluted with particles of dust, is cleaned via a dry filter. Coarse residues from the sanding process are collected in cassettes at the sides and are disposed of as a harmless substance.



Superb coating to meet top demands: by automatically mixing the varnish, using underfloor suction and heat recovery too, Wilkhahn produces conference and single tables at high manufacturing, occupational health and safety and environmental protection levels.



Before powder coating, the surfaces and other quality features are checked to ensure they are perfect.

Steel construction and powder coating

The key steps in steel construction at Wilkhahn are preparing parts of frames for standard tables and adjusting their designs, to making customised table frames. Steel and aluminium are primarily used. Low levels of emissions and noise occur when cutting, drilling, grinding and welding metals. But vital environmental aspects in this case are however energy consumption and the safe storage of oils, grease and cooling lubricants.

Wilkhahn has powder-coating machinery to protect metal parts like table frames, uprights and star bases from corrosion and to coat them in different colours according to customers' preferences. Energy is required for degreasing and rinsing in water, drying and finally firing the varnishing powder at 190°C. Superfluous varnishing powder is recov-



The powder coatings used by Wilkhahn contain virtually no solvents or heavy metals and allow a choice of colours to suit customer preferences.



Sustainability included: to send its swivel chair range **ON**® throughout the world, Wilkhahn has developed a special back fastener. The knock-down method of dispatch creates a compact package that reduces emissions caused by transport.

ered and re-used to a large extent. In the past few years Wilkhahn has invested in improved hall insulation and optimised heating circuits.

For years, another environmental aspect of the machinery, aqueous waste, has been reduced to the lowest minimum technically possible by sustainable recycling and treatment of the water used for cleaning. The only emissions generated are steam and CO₂, as the powder varnishes used are free of solvents and heavy metals.

Energy and heating technology

At the Bad Münden site, Wilkhahn uses photovoltaic cells and operates a combined heat and power plant based on renewable raw materials, as well as further small boilers for liquid and gaseous fuels. By regularly carrying out maintenance on and checking the machinery, emission thresholds of sulphur dioxide and nitrogen oxides constantly fall below statutory requirements (in line with German legislation on emissions). Due to the small amounts involved, emissions of SO₂ and NO_x are classified as secondary environmental aspects at Wilkhahn.

Logistics – incoming goods and dispatch

The international approach to sales and co-operation with many partners within the supply chain lead to regional, domestic and international material flows. The main environmental aspects are energy and material consumption for packing and transportation with the associated emissions of carbon dioxide, fine dusts and nitrogen oxides.

By thinking ahead when planning routes and optimising usage of loading space, Wilkhahn endeavours to minimise traffic caused by transportation. At the same time, Wilkhahn only uses just enough packaging material required to deliver

the products safely to the customer. In addition to dust-protection sheets made of recyclable polyethylene and cardboard boxes, reusable and returnable packaging, crates and fabric blankets are used.

With the consent of its international customers, Wilkhahn uses railway and sea freight which cause fewer greenhouse gas emissions than planes. Wilkhahn's vehicle fleet management also aims to preserve resources and reduce emissions caused by traffic. As a result, the Wilkhahn fleet is always state of the art and most of the vehicles fulfil at least the Euro 5 exhaust standard.

Procurement – supply chain management

Wilkhahn has spent many years developing and managing long-term relationships with its partners. Clear technical requirements and open communication are the bases for product quality and safety. These provisos remain key aspects when working together with over 200 suppliers. We identify possible improvements in regular audits and increase mutual trust.

But Wilkhahn's definition of quality embraces much more than dimensions and products working properly at all times. Fair working conditions and environmental protection remain important goals even in the Wilkhahn supply chain. Another aim is to cut packaging materials and traffic by providing the right packaging concepts. We use eco-friendly packaging materials and reduce traffic caused by transportation by keeping sizes as efficient as possible.

Environmental performance.

The analysis of the environmental aspects for relevant activities and machinery provided the foundations for Wilkhahn's current environmental programme. For 2011–2013 it includes seven objectives and associated measures. This fourth section of Wilkhahn's environmental declaration will report on their implementation, development of input-output streams, as well as EMAS core indicators.

The continual improvement of our environmental performance and transparent communication are major stimuli for Wilkhahn. Which is why we constantly add to this section of our environmental declaration each year and publish it on our "Wilkhahn Green" Web portal: www.wilkhahn.com/green

GÜLTIGKEITSERKLÄRUNG 

gemäß den Vorgaben der
Verordnung (EG) Nr. 1221/2009 i.d.F. vom 25.11.2009
über die freiwillige Teilnahme von Organisationen an einem Gemeinschaftssystem für Umweltmanagement und Umweltbetriebsprüfung (EMAS) 

Die Unterzeichneter, Dr. Johann Josef Hanel und Minje Afheldt, zugelassen für den Bereich "NACE-Code 31 - Herstellung von Möbeln", bestätigen, begutachtet zu haben, dass der Standort bzw. die gesamte Organisation, wie in der Umwelterklärung der Organisation

Wilkhahn
Wilkening + Hahne GmbH + Co. KG
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31848 Bad Münder
Deutschland

mit der Registrierungsnummer D-133-000-55 angegeben, alle Anforderungen der Verordnung (EG) Nr. 1221/2009 des Europäischen Parlaments und des Rates vom 25. November 2009 über die freiwillige Teilnahme von Organisationen an einem Gemeinschaftssystem für Umweltmanagement und Umweltbetriebsprüfung (EMAS) erfüllt.

Mit der Unterzeichnung dieser Erklärung wird bestätigt, dass

- Begutachtung und Validierung in voller Übereinstimmung mit den Anforderungen der Verordnung (EG) Nr. 1221/2009 durchgeführt wurden,
- das Ergebnis der Begutachtung und Validierung bestätigt, dass keine Belege für die Nichteinhaltung der geltenden Umweltvorschriften vorliegen,
- die Daten und Angaben der Umwelterklärung des Standortes ein verlässliches, glaubhaftes und wahrheitsgetreues Bild sämtlicher Tätigkeiten des Standortes innerhalb des in der Umwelterklärung angegebenen Bereichs geben.

Hannover, 27.04.2011


Dr. Johann Josef Hanel
Umweltgutachter
DE-V-0058


Minje Afheldt
Umweltgutachter
DE-V-0312

TÜV NORD CERT UMWELTGUTACHTER GmbH Am TÜV 1 30519 Hannover www.tuev-nord.de
DAU-Zulassungs-Nr.: DE-V-0263

Certificate of Registration



EMAS
VERIFIED
ENVIRONMENTAL
MANAGEMENT

The Company
Wilkhahn Wilkening + Hahne GmbH + Co. KG

Location
Fritz-Hahne-Straße 8
31848 Bad Münder-Eimbeckhausen

Registration-No.: DE-133-00055

Date of first registration
13th July 2001

This certificate is valid until
31st March 2014

This organisation has established an environmental management system according to EU-Regulation Nr. 1221/2009 and EN ISO 14001:2004 Section 4 to promote the continual improvement of environmental performance, publishes an environmental statement, has the environmental management system verified and the environmental statement validated by a verifier, is registered under EMAS and therefore is entitled to use the EMAS-Logo.



Industrie- und Handelskammer
Hannover
Chamber of Industry and Commerce



I. V. Dr. Horst Schrage
(Deputy Chief Executive)



Implementation of the environmental programme 2008–2010.

Energy:

A milestone in 2008 was the commissioning of the combined heat and power plant which generates electricity and energy for heating based on renewable raw materials. By using combined heat and power, we cut consumption of fossil fuels in 2009 by over 43 percent (2008: -14.6%). Since 2008, important measures have been taken to provide more efficient usage of energy used for heating. These measures included fitting new windows and doors with better heat-transfer coefficients in the production pavilions, as well as providing new roof insulation in the powder-coating hall. Further steps were completed, such as optimising the return temperature of the heating system. In 2008, the lighting system in the three halls was switched from 58W to more efficient 51W fluorescent strips in order to cut electricity consumption.

Compared with the reference year 2007, Wilkhahn cut total energy requirements in 2010 by 5.3 percent (2009: -12.4%) and increased the proportion of energy from renewable energy sources to a total of 46 percent.

Packaging

Thanks to the successful launch of the office swivel chair range ON®, Wilkhahn has been able to shore up its position with international competition. As a result, consumption of packaging also rose from 2007 to 2010. In 2010, three times as much paper and cardboard was used for boxes (2010: 295 t). In the same period, the usage of protective films made of polyethylene increased by about 57 percent (2010: 53.2 t).

Waste

Further improvements were made in avoiding waste and segregating waste into separate parts in production. A system for re-using oily cleaning cloths was also initiated, contributing significantly to avoiding waste. Due to the increase in sales of office swivel chairs, packaging-related waste increased, above all for paper/cardboard and films. Extensive sorting and segregation of waste continues.

Hazardous materials and substances














By commissioning the modern varnishing workshop in 2009, Wilkhahn achieved a significant drop in waste containing solvents and VOC emissions. Computer-based mixing and cleaning processes minimise the waste, as no unused amounts need to be disposed of. An attempt to replace the bonding system for the FS model based on solvents (used since 1982) failed in 2008. The technical properties of alternative bonding agents were simply not adequate.

In 2010, emissions of solvents were reduced by 9 percent. Hazardous waste was almost halved (-46%) to a total of just 10.1 tonnes.

Water

Due to technical changes in production, a humidifying system was switched off in 2009. This saves about 500,000 litres of water per year. The modern varnishing section for wood surfaces has also been operating since 2009. The change from wet to dry spraying stands meant a further saving in water. From that point on, no processing water has been required for varnishing and therefore no aqueous waste has been produced. Therefore, in 2010 some 27 percent less water was used.

Environmental programme 2011–2013: goals and measures.

No.	Goal	Step	Status	Date
1	Material efficiency: to reduce paper consumption at the Bad Münde site in relation to sales by 20%.	To replace paper by IT-based archiving in accounts department from 2012.	 started	2012
2	Efficient energy usage: to cut consumption of electricity in relation to sales by 5% by 2013.	In order to glue genuine wood edges in an energy-efficient way, the high-frequency press will be replaced by a membrane press.	 started	2011
3		Further subdivision of the compressed air system into separately controllable sub-sections.	 started	2011
4	Responsible energy mix in the long term: meet at least 66% of total energy requirements by using renewable energy sources.	Convert the Energiezentrale Nord for connection to a bio gas plant, for CO ₂ neutral heat usage from 06/2011.	 completed	2011
5		To use solar-thermal plants for generating CO ₂ -neutral hot water.	 started	2012
6	Biodiversity: to develop the natural value at headquarters by planting trees.	A mixed fruit orchard will be planted to upgrade the existing biotopes.	 in planning	2013
7	Emissions: to keep airborne pollutants at a permanently low level.	To invest in a new varnishing roller to enable constant usage of solvent-free primer varnishes, also in closed-pore table surfaces in special sizes.	 in planning	2013
8	To keep health and safety and environmental protection at a high level at headquarters and internationally.	To set up emergency devices to protect water pipes in the Eimbeckhausen stream.	 started	2012
9		To maintain offerings for boosting health outside the company.	 started	2013
10		To continue regular auditing of the most important suppliers as regards quality, health and safety and environmental protection.	 started	2013
11	Environmental information: systematic extension of the data base and the availability of the information assessed and looked at.	Create ISO 14067 life cycle analyses (LCAs) for selected products.	 started	2011
12		To expand the key performance indicator system "Corporate responsibility" (CSR) following GRI standards.	 started	2012
13		To develop and provide internal training modules on health and safety, environmental protection, quality.	 started	2012

EMAS core indicators.

EMAS core indicators		2009	2010
Total value creation ¹ (millions of euros)		16.4	20.3
Material efficiency	Total consumption of raw materials/consumables/supplies (t/millions value creation)	131.5	144.3
	Total waste (t/millions value creation)	21.4	29.0
	Hazardous waste (t/millions value creation)	1.1	0.5
Energy efficiency	Electricity and heat consumption (MWh/millions value creation)	495.3	433.0
	Energy from renewable sources (MWh/millions value creation)	329.0	197.6
Emissions	Carbon dioxide emission from production and admin (t/millions value creation)	14.1	66.6
Biodiversity	Area used (m ² /millions value creation)	1,159.0	936.0
	Change of sealed area compared with previous year (%)	0	0
Water	Total consumption (litres/million value creation)	258.5	169.3

¹ The total value creation established as a total of the revenues minus material, depreciations and other purchases of goods and services.

Material and energy flows: input/output.

Input	2008	2009	2010
Material efficiency – raw materials, consumables and supplies	(t)	(t)	(t)
Ferrous metals	544.9	634.0	753.0
Aluminium	333.7	492.0	793.0
Wood	459.8	385.6	385.8
Plastics	427.3	385.8	561.8
Fabrics for covers	46.6	22.5	30.2
– percentage of natural fibres (wool)	N/S	N/S	20.4
Leather	20.8	31.3	32.5
Paper/cardboard (packaging)	96.8	170.7	294.7
Plastics (packaging)	32.6	21.4	53.2
Powder varnishes	9.1	1.9	4.3
Energy efficiency (production + admin)	(MWh)	(MWh)	(MWh)
Heat	7,188	6,267	6,495
Electricity	2,538	1,865	2,296
Total consumption	9,726	8,132	8,791
Share of energy consumption from renewable sources	(%)	(%)	(%)
Heat (vegetable oils)	24	40	31
Electricity (vegetable oils+ photovoltaics)	74	153 ¹	86
Share in overall consumption	37	66	46
Water	(m³)	(m³)	(m³)
Water (total)	4,717	4,239	3,436
– for sanitation	4,173	4,127	3,386
– for processing water	544	112	50
Output	2008	2009	2010
Waste	(t)	(t)	(t)
Mixed municipal waste	220.8	95.9	143.0
Paper/cardboard	159.0	97.9	150.7
Wood and sawdust	122.0	108.7	202.7
Ferrous metals	34.5	30.1	28.0
Leather	10.8	6.5	9.3
Packaging film	8.7	7.1	9.0
Aluminium	6.9	3.5	8.5
Textiles/fabrics	3.7	3.5	2.3
Solvents and solvent mixtures	13.0	14.7	2.7
Paint and varnishing waste. incl. lacquer sludge	2.2	1.3	0
Aqueous waste, halogen-free treatment emulsions	32.5	12.6	23.4
Batteries	1.1	0	1.0
Others	11	10.5	8.6
Total amount	626.2	392.22	589.1
Total of hazardous wastes	27.3	18.8	10.1
Emissions	(t)	(t)	(t)
Volatile Organic Compounds (VOCs)			
– from varnishes and dilutions	4.7	4.5	4.9
– from bonded coatings	4.3	4.3	3.3
Dusts (PM)	0.01	<0.01	<0.01
Nitrogen oxides (NO _x)	0.4	0.3	0.3
Carbon dioxide (CO ₂)	1,743	231	1,356
Biological diversity	(m³)	(m³)	(m³)
Area built on	19,000	19,000	19,000

¹In 2009 electricity generation from the combined heat and power plant and the photovoltaic system exceed total Wilkhahn consumption for the first time. The electricity fed into the public grid was taken into account in the share of renewable energy in total consumption and in calculating the emissions.

Wilkhahn

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