

Updated Environmental Statement **2021**

Updated version of the sustainability report 2020 – 2022



More than just furniture – designing tomorrow's workspaces

Wilkhahn stands for design made in Germany like virtually no other furniture manufacturer. The company is seen as a pioneer of people-friendly and environmentally sound improvements in office workplaces worldwide. Early on, it anticipated global trends such as sustainability, agile collaboration and the need to keep a workforce healthy. The upshot has been ground-breaking products, such as the state-of-the-art, free-to-move office chairs, which help prevent backache in people working at computers. Mobile furniture solutions for projects and creative spaces are considered benchmarks because these boost team spirit and innovativeness and mean major resource efficiencies. Above and beyond sustainable products, the company's human-centered workplace is also an ingeniously simple "tool" that helps to develop future-proof working environments. The tool's four dimensions of well-being/health, collaboration, identity and purpose describe the brand and examine core issues that companies all over the world need to answer in view of up-and-coming transformation processes. The family-run company has won multiple accolades for entrepreneurial courage and vision, two of which are the German Environmental Prize and the Federal Ecodesign Award.

The products stand for intuitive use, flawless craftsmanship, timeless design and very long service lives, which can be repeatedly extended thanks to simple repair options. The high-quality materials are all labeled to enable recycling at the end of their useful lives.

Since back in 2002, Wilkhahn has been implementing an integrated management system based on the international ISO 9001, ISO 14001 and EMAS standards at its Bad Münde headquarters in Germany. The system is geared to the quality goals and the ecological and social sustainability objectives so that customer satisfaction and environmental performance are improved consistently and a high level of health and safety is achieved.

In our 2021 environmental statement, we'll be reporting on progress relevant to EMAS over the past year. Short texts, graphics and spreadsheets provide information about the development of key sustainability aspects.



In November 2020, for the second time in succession, Wilkhahn won Heinz publishing house's Architects' Darling award in the cradle-to-cradle category for its sustainability report.

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WE SUPPORT

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.



The definition of breathing new life into an old product – produced in 1999, bought second hand for a co-working space in 2011, revamped with a new shell in 2020 and ready for the next generation – the FS-Line office chair.

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).



Everything changes. But quality is a constant. Made to last generations, the FS-Line chair has been setting benchmarks in terms of design, ergonomics and sustainability for 40 years.

Sustainability goals and sustainability performance

In 2020, the following environmental aspects developed during a period where business performance was slightly under par. Shipments and sales were down by about 10 per cent compared with the previous year.

Emissions

A total of 1,684 tonnes of carbon dioxide were emitted at the Bad Münde headquarters in 2020. This equals a decrease of 331 tonnes, or 16.6 percent compared with the previous year. Heating requirements for the production buildings, warehouses and offices at the Bad Münde headquarters dropped by about 1,000 megawatt hours (MWh) or 18 percent. This translates to about 90,000 liters less heating oil consumption, saving 280 tonnes of CO₂.

By using renewables and making energy efficiencies, Wilkhahn halved the carbon footprint at the Bad Münde headquarters from 4,000 to below 2,000 tonnes per year.

Since 2012, district heating generated from biogas has ensured that year for year, 250,000 liters of heating oil were saved.

Energy-efficiency measures reduced electricity consumption by 20%.

Since 2018, 6,000 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 97% are recycled.

On the other hand, the use of climate-neutral district heating only decreased by 3.6 percent compared with the previous year. The relative share of climate-neutral district heating therefore rose from 47 to 55 percent. This proportion is to be increased to at least 60 percent by the end of 2022. To achieve this goal, a technical concept to expand the heating system was developed in 2020 so that parts of the powder-coating facility at the Bad Münde headquarters can be kept warm using district heating in future too.

A decrease in fuel consumption by the Wilkhahn vehicle fleet also helped cut CO₂ emissions. In 2020, about 20,000 liters less fossil fuel was used – a saving of about 60 tonnes of CO₂ or 7 percent compared with the previous year. This is an important step towards achieving the target of cutting the vehicle fleet's carbon dioxide emissions by at least 5 percent permanently compared with 2019.

Electricity consumption

Once electricity consumption at the Bad Münde headquarters had already dropped below the 2,000-megawatt-hour mark the previous year for the first time, a significant 22 percent reduction to just 1,405 megawatt hours of electricity was achieved in 2020 again. This was partly due to more employees working from home to prevent the spread of the covid 19 virus.

However, a number of energy efficiency measures were taken, which will mean long-term success in saving energy. One of these measures was the conversion of sheds 3 and 4 to LED lighting in summer 2020 and a reduction in the number of printers in offices. Following an in-depth analysis, many of the single-user printers were replaced by fewer but more energy-efficient multipurpose printers, which are about one third more energy efficient in total.

Solvents (VOCs)

At the Bad Münde headquarters, Wilkhahn has been emitting a lot fewer solvents than required by statute for many years. In 2020, solvents from all adhesives emitted by the upholstery department totaled just 2.14 tonnes – a good third less than the previous year. As table top manufactur-

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.

Development of relative electricity consumption

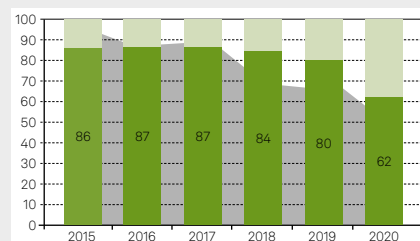
Index value (reference year 2019 = 100)



- Goal: -10% less electricity consumption (compared with consumption + sales 2019)
- Index year 2019 (index = 100)
- Electricity consumption index 1 (consumption figures 2019 = 100)
- Electricity consumption index 2 (consumption/sales 2019 = 100)

Quantities transported: Proportions and quantities compared

Index figure (reference year 2015 = 100)



- Development of packaging quantities (2015 = 100)
- Transport packaging made of plastics
- Transport packaging made of renewable materials (wood, cardboard)

Emissions of organic solvents (VOCs)

In tons / year



- Solvents (VOCs) from coating wood/composite wood materials in k/a
- Solvents (VOCs) from bonded coatings in k/a
- Total solvent emissions (VOCs)
- Emissions threshold (no. 31 BImSchV)

ing at the Bad Mnder site was discontinued by mid-2019, only very small quantities of solvent-based varnishes were processed (in the development workshops). The powder coatings used in Wilkhahn's powder-coating facility do not contain solvents. In 2020, solvents emitted at the Wilkhahn headquarters in Bad Mnder dropped by a further 57 percent compared with the previous year.

Packaging used for shipping

In 2020, Wilkhahn used 43 percent less packaging material when shipping to customers. The total dropped from 303 to 172 tonnes. There was a 56 percent drop in wood for crates and boxes used in international shipping. On the other hand, the use of protective film made of polyethylene (PE) rose by 9 percent to 65 tonnes.

As Wilkhahn continues to ship products to customers in the best and most compact way, these figures reflect a business year dominated by fewer sales in view of covid 19. While business was relatively stable in Germany and Europe despite covid, a lot of our overseas business dipped sharply in some cases, so that far fewer wooden crates and boxes were required for shipping.

Waste materials, substances and recycling

In 2020, the quantity of waste materials and substances from manufacturing processes and our offices decreased by 6.1 percent to 346 tonnes compared with the previous year. At 103 tonnes, cardboard and cardboard boxes made up the biggest proportion of waste materials, but was 8 percent lower than the previous year. A total of 81 tonnes of waste wood were recycled. This was a sharp 26 percent reduction compared with the previous year, mainly because there were no offcuts from table top manufacturing. Mixed industrial waste also decreased significantly compared with the previous year by 18 percent to just under 60 tonnes. The industrial waste was also fed into a sorter to retrieve the recyclable materials.

In 2020, hazardous waste increased slightly by 2.7 tonnes compared with the previous year due to extensive redevelopment in the manufacturing department – for example, florescent strips and walls with insulation were removed. The proportion of recyclable waste materials was at a pleasingly high level last year too. In total, it was possible to recycle 97 percent of waste in terms of the materials or heat from the production line and offices.

Material used

In 2020, material usage decreased by 13 percent compared with the previous year to 2,455 tonnes, with sales decreasing by about 10 percent. A lot less composite wood was required for table tops or wood for crates and cardboard. Compared with the previous year, 10 percent or 51 tonnes more ferrous metal was used and the consumption of plastics rose by 4 percent to 1,035 tonnes. The use of aluminum declined significantly by 30 percent to 393 tonnes. These differences in material usage are reflected by the changes in product sales.

Water

At 3,365 cubic meters, drinking water consumption was at the same level of the previous year. The fact that so many



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

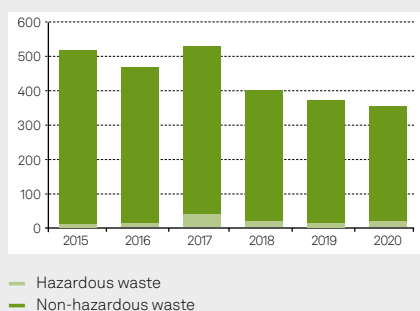
people worked at home due to covid 19 and fewer visitors came meant much lower water consumption in the bathrooms. However, there was slightly higher water consumption in the powder coating department because of very healthy order books.

Soil, biodiversity

There were no changes in this respect from the previous year. No extra land was sealed at the Wilkhahn headquarters in Bad Mnder.

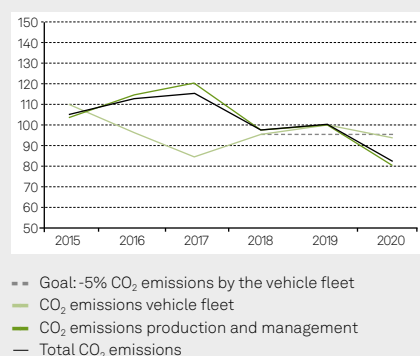
Development of waste 2015 – 2020

In tons / year



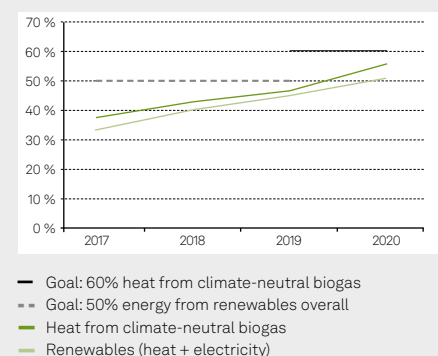
Development of CO₂ emissions 2015 – 2020

Index value (reference year 2019 = 100)



Heating energy from renewables

In percent



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.

No.	Goal	Measure/comment	Status	Date	Responsible
1	Climate-friendly heating: From 2022, at least 60% of the heat required at the Bad Munder headquarters will come from renewables	Draw up a concept to decrease the district heating's return temperature, to be implemented in 2021	 Started	2020	Head of works technology
2		Use the existing solar-power systems (to help generate hot water), integrate an outside warehouse into the main plant.	 Started	2022	Head of works technology
3	Use heating energy efficiently: – heating requirements at the Bad Munder headquarters A 5% reduction by 2022 compared with 2019.	Continue to cut emissions from the Wilkhahn vehicle fleet through low-emission, energy-efficient vehicles.	 Started	2020	Vehicle fleet manager
4		Draw up a usage concept so that the Wilkhahn charging stations can also be used by Wilkhahn co-workers	 Started	2020	Head of quality and sustainability
5	Encourage green modes of transport, avoid emissions: – A 5% reduction of CO ₂ emissions from the vehicle fleet compared with 2019. – Continue to optimize CO ₂ emissions from shipments.	Logistics partners are only to use energy-efficient, low-emission vehicles (EURO 5 emission standard or higher).	 Started	Ongoing	Material management head
6		Analyze outgoing shipments to increase the loading volume by at least 10%.	 Started	2021	Material management head, Logistics manager
7		Sustainable product design, optimum packaging units and packaging free of harmful substances enable environmentally friendly and safe logistics that are fit for purpose.	 Started	2020	Head of product development, Material management head, Logistics manager
8	Use electricity efficiently: Cut relative electricity consumption by a further 10% by 2022 (compared with the reference year 2019).	Dismantle the central suction system and convert to single, local suction systems	 Implemented	2020	Head of works technology, Company mechanics
9		Replace fluorescent strips with LED lighting in some areas of table and chair assembly.	 Implemented	2020	Head of works technology, Company mechanics
10		Cut grid pressure by 1 bar, take a compressor out of service.	 Implemented	2020	Head of works technology
11		Green IT - dismantle a physical server and integrate an energy-efficient, external cloud server.	 Started	2020	Head of information systems
12		Green office - reduce existing single workstation printers by at least 30%, replace with energy-efficient and resource-friendly multi-functional devices.	 Implemented	2020	Head of information systems
13	Optimize use of materials: Long-lasting and repair-friendly products, materials low in pollutants, less packaging used in shipping, fewer remnants and less waste during production.	Develop innovative, long-lasting and repair-friendly office furniture and use eco-friendly materials and production methods low in pollutants.	 Ongoing	Ongoing	Head of product development, head of further product development
14		Use recycled plastics in some selected components, increase the proportion of recycled plastics.	 Started	2021	Head of product development
15		Permanently cut down on material waste in manufacturing by introducing a quality bonus incentive system.	 Ongoing	Ongoing	Chief operations officer
16		Update sustainability criteria for materials to be procured.	 Started	2021	Head of quality and sustainability
17	Sustainability, fairness, health: Encourage a high degree of ecological and social responsibility in Wilkhahn's production facilities and partners in the supply chain.	Sustainable supply chain: Make regular checks on the top 20 suppliers concerning quality, health and safety and environmental protection as well as fair working conditions.	 Started	2022	Head of quality and sustainability
18		Maintain chain-of-custody certification in line with the specifications of the Forest Stewardship Council® (FSC) and increase the proportion of FSC-certified products.	 Started	2022	Head of quality and sustainability
19		Carry out a social audit with trade union representatives to implement the ILO core work standards at the Wilkhahn plant in Poznań and at a further supplier's premises.	 Started	2021	Head of quality and sustainability
20		Maintain and develop frequent information events and health-boosting programs for Wilkhahn employees.	 Ongoing	2021	Company health management team
21		Turn 10,000 m ² of the company's site into a flower orchard in order to protect bees and other insects.	 Started	2021	Head of works technology

Material and energy flows: input/output

Input	2018	2019	2020
Raw materials and consumables (t)			
Ferrous metals	626.3	519.8	570.9
Aluminum	597.8	566.5	410.3
Zinc	32.7	28.6	14.1
Wood	334.3	322.2	169.5
Plastics	960.4	997.4	1,034.5
Textiles/upholstery materials	47.0	76.4	86.1
Leather	13.4	14.2	9
Transport packaging (cardboard/wood)	270.8	243.6	107
Transport packaging (plastics)	50.1	59.6	65.1
Powder varnishes	5.2	7.7	5.6
Fuels (heating oil, diesel)	330.2	330.7	287.9
Energy – production and management (MWh)			
Heat	5,355	5,505	4,512
Electricity	2,172	1,926	1,507
Total energy consumption	7,528	7,431	6,019
Water (m³)			
Water (sanitation, process water)	3,910	3,363	3,365
Output	2018	2019	2020
Residues and waste (t)			
Industrial municipal waste	88.0	72.7	59.4
Paper/cardboard	128.7	111.1	102.6
Wood/sawdust	116.7	108.9	80.9
Ferrous metals	17.9	14.8	36.4
Aluminum	7.1	4.4	3.4
Packaging film	6.1	7.7	9.3
Leather	9.4	5.8	4.6
Textiles/upholstery materials	5.0	4.5	3.1
Mixtures containing solvents (VOCs)	0.6	0.6	4.7
Aqueous waste, halogen-free treatment emulsions	11.2	9.5	9.3
Others	9.0	28.3	32.2
Total residues and waste	400.2	368.3	345.9
proportion of hazardous waste	18	15.3	18
Energy from renewable sources (%)			
Heat	44	47	55
Electricity	30	40	40
Total	40	45	51
Emissions (t)			
Carbon dioxide (CO ₂) Production and offices	1,665	1,712	1,403
Carbon dioxide (CO ₂) Mobile (vehicle fleet)	287	303	281
Solvents (VOCs)	6.1	5.0	2.1
Dusts (PM)	0.01	0.01	<0.01
Nitrogen oxide (NO _x)	0.6	0.6	0.55
EMAS core indicators			
Total value creation (EUR millions)	25.7	26.2	22.5
Emissions			
Carbon dioxide emissions (t/million euros)	64.7	65.3	62.4
Energy efficiency (MWh/million euros)			
Electricity and heat consumption	292.6	283.6	267.9
Energy from renewables	99.5	96.4	137.3
Material efficiency (t/million euros)			
Total consumption of feedstock and supplies	115.1	43.9	109.3
Total waste	15.6	53.5	15.4
Hazardous waste	0.7	2.6	0.8
Water (m³/million euros)			
Total consumption	152.0	128.4	149.8

Wilkhahn

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Wilkhahn accepts responsibility for sustainably protecting our environment through its EMAS-validated and ISO-14001-certified environmental management system.

This 2021 environmental statement updates the environmental data from Wilkhahn's 2020 – 2022 sustainability report.

Wilkhahn provides information about the company's environmental performance and further sustainability aspects in the 40-page report. A PDF version can be downloaded from the Wilkhahn website and a printed version is available in German, English and Dutch.

The next update of the environmental data will probably be published in April 2022.

About this publication

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