

## Updated Environmental Statement **2022**

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 Münders 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 2022 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.





In conjunction with neunzig°design, Wilkhahn developed the new Yonda, an attractive shell-structure chair range, in 2021. It's a combination of contemporary design and exceptional comfort. What's more, despite consisting of just a few components, it offers huge variety and comes in a design and materials that are ideal for a circular economy. In 2022 and the years to come, it will make us want to embrace a sustainable future.

## 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 CO<sub>2</sub>).

### 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 2021, the following environmental aspects changed during a period where business had improved compared with the previous year. At Wilkhahn's headquarters, about 10 percent more office furniture was produced.

## At Wilkhahn's headquarters, renewables accounted for 54 percent of energy demand for the first time

In 2021, the proportion of renewables Wilkhahn used to cover overall requirements at headquarters increased to 54 percent or 3,875 megawatt hours. This is roughly equivalent to the energy produced by 386,000 liters of heating oil. Wilkhahn achieved this new lower carbon dioxide footprint by fully converting to eco-friendly hydropower. As far as climate friendly heating is concerned, Wilkhahn was unable to achieve its own ambitious targets. In the winter of 2021, an approximately three-week district heating outage meant that the company had to resort to using

By using renewables and making energy efficiencies, Wilkhahn halved the carbon footprint at the Bad Mnder 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 25%.

Since 2018, 10,000 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 90% of them are recycled

oil to heat its premises. As a result, over the year, the proportion of renewables for heating purposes dropped from 55 to "just" 40 percent. The target to increase the proportion of climate friendly district heating to at least 60 percent from 2022 onward, is still feasible nevertheless. In 2021, redevelopment work to enable the switch to district heating was completed.

## Carbon dioxide emissions from Wilkhahn's vehicle fleet decreased

In 2021, vehicles in the Wilkhahn fleet emitted a total of 269 tonnes of carbon dioxide. Compared with 2019, the reference year, 11 percent less fuel was used. The company will continue to pursue conversion of the fleet, with the option to increase the number of hybrid or electric vehicles even further.

## Relative electricity consumption declines sharply

In 2021, the goal to cut relative electricity consumption at the Wilkhahn headquarters by at least 10 percent compared with 2019 was achieved. Compared with the reference year, absolute electricity consumption dropped by 15 percent. This was made possible by converting all production sheds to LED lighting and replacing older compressors with more efficient equipment.

Production increased by approx. 10 percent, causing electricity consumption to rise by 9 percent, compared with the previous year, to 1,641 megawatt hours. As the number of production days increased compared with the previous year when the workforce was on furlough, headquarters required more electricity to generate light, compressed air and operate the rest of the machinery. All the electricity came from climate friendly hydropower.

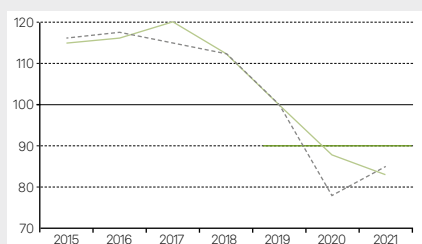
## Solvent emissions at a new low level

In 2021, 2.9 tonnes of organic solvents from upholstery adhesives and cleaning agents were emitted at the Wilkhahn headquarters in Bad Mnder. The emissions, which rose by 34 percent compared with the previous year, correlate with the significant rise in sales of upholstered chairs (e.g. FS and Occo models). For each product, solvent emissions remain at a low level and indicate no negative impact on the environment. The company was comfortably below the statutory emissions threshold of 15 tonnes per year in 2021 too.

By outsourcing production (tabletops, upholstery), solvent emissions have also been partially transferred to partners. By carrying out regular audits, Wilkhahn ensures that production throughout the supply chain is safe and environmentally friendly and complies with legal requirements.

### Development of relative electricity consumption

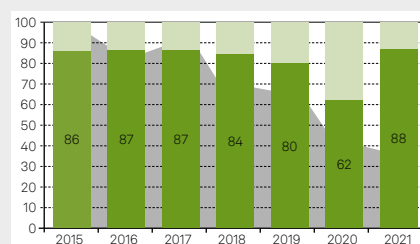
Index value (reference year 2019 = 100)



- 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

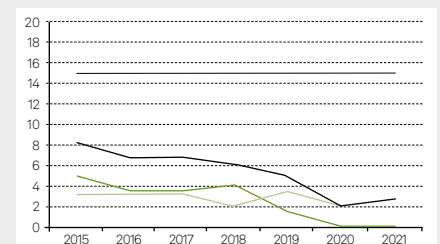
Index figure (reference year 2015 = 100)



- 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)

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.

### One seventh less packaging used for shipping

In 2021, Wilkhahn again used less packaging when shipping to customers. The quantity of wood, cardboard and plastics for packaging dropped by 15 percent to just 145 tonnes. As Wilkhahn continues to ship products to customers in the best and most compact way, these figures reflect the changes in sales in a business year dominated by 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.

### 93 percent of raw materials recycled

In 2021, the quantity of waste materials and substances from manufacturing processes and our offices decreased by 10 percent to 312 tonnes compared with the previous year, while production and sales rose at the same time. In total, it was possible to recycle 93 percent of waste from the production line and offices.

At 118 tonnes, cardboard and cardboard boxes made up the biggest proportion of recycled waste materials, and was 15 percent higher than the previous year. Due to covid 19, collections were postponed so that bales of recovered cardboard prepared for recycling in December 2020 were already included in the quantity for 2021.

Mixed industrial waste also increased significantly compared with the previous year by 27 percent to just under 75.5 tonnes. On the one hand, this is due to the rise in production compared to the previous year. On the other hand, leather and textile waste, which was previously collected separately, has now been included in mixed commercial waste since 2021. There were no regional companies that

recycled leather and textiles separately, which means that there are no longer any commercial and ecological advantages compared with thermal recycling.

A total of 59 tonnes of waste wood were recycled in 2021. This was a sharp 27 percent reduction compared with the previous year. Due to the very widespread switch to reusable packaging by main suppliers, for example, there were significantly fewer disposable pallets. The legal requirements of the German Industrial Waste Ordinance were safely complied with. Over 90 percent of waste is collected separately.

### Higher production led to more material consumption in 2021

Material use (excluding fuels) increased by 5 per cent year-on-year to 2,584 tonnes in 2021. The increase in material consumption reflected the higher quantity of office furniture produced compared with the previous year.

In total, 63 tonnes more ferrous metals, 112 tonnes more aluminum and 29 tonnes more plastics were used. Consumption of packaging materials such as wood, cardboard and film, fell by 27 tonnes.

### Water consumption rose by 12 percent

At 3,787 cubic meters, drinking water consumption exceeded the two previous years by about 12 percent.

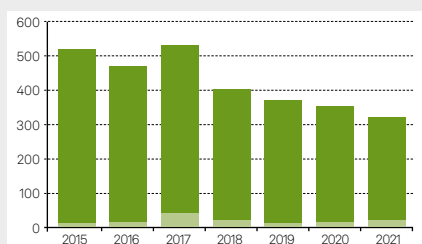
The reason lies in the further increase in use of the powder coating facility, which resulted in increased water consumption for pre-cleaning components. In addition, in the second half of the year, leaks in the underfloor heating system pipes led to water leaking until the pipes were replaced.

### Impact on soil and biodiversity still low

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

### Development of waste 2015 – 2021

In tons / year



— Hazardous waste  
— Non-hazardous waste

### Development of CO<sub>2</sub> emissions 2015 – 2021

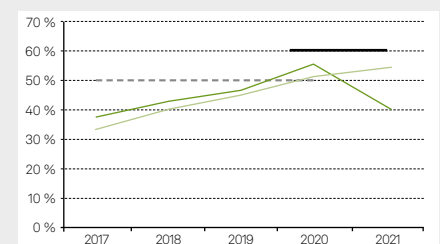
Index value (reference year 2019 = 100)



— Goal: -5% CO<sub>2</sub> emissions by the vehicle fleet  
— CO<sub>2</sub> emissions vehicle fleet  
— CO<sub>2</sub> emissions production and management  
— Total CO<sub>2</sub> emissions

### Energy from renewables

In percent



— Goal: 60% heat from climate-neutral biogas  
— Goal: 50% energy from renewables overall  
— Heat from climate-neutral biogas  
— Renewables (heat + electricity)

# 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	<b>Climate-friendly heating:</b> From 2022, at least 60% of the heat required at the Bad Münde headquarters will come from renewables	Draw up a concept to decrease the district heating's return temperature, to be implemented in 2021	● Implemented	2020	Head of works technology
2		2a: Use of the existing solar-power systems 2b: Integration of an external warehouse	🔄 Ongoing ○ Cancelled	2022	Head of works technology
3	<b>Use heating energy efficiently:</b> – heating requirements at the Bad Münde 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	<b>Encourage green modes of transport, avoid emissions:</b> – A 5% reduction of CO <sub>2</sub> emissions from the vehicle fleet compared with 2019. – Continue to optimize CO <sub>2</sub> 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	<b>Use electricity efficiently:</b> 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.	● Implemented	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	<b>Optimize use of materials:</b> 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	2022	Head of quality and sustainability
17	<b>Sustainability, fairness, health:</b> 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.	● Implemented	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 <sup>2</sup> 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	2021
<b>Raw materials and consumables (t)</b>				
Ferrous metals	626.3	519.8	570.9	634.2
Aluminum	597.8	566.5	410.3	505.9
Zinc	32.7	28.6	14.1	23.4
Wood	334.3	322.2	169.5	153.9
Plastics	960.4	997.4	1,034.5	1,063.6
Textiles/upholstery materials	47.0	76.4	86.1	41.4
Leather	13.4	14.2	9	13.2
Transport packaging (cardboard/wood)	270.8	243.6	107	90.5
Transport packaging (plastics)	50.1	59.6	65.1	54.6
Powder varnishes	5.2	7.7	5.6	3.5
Fuels (heating oil, diesel)	330.2	330.7	287.9	339.2
<b>Energy – production and management (MWh)</b>				
Heat	5,355	5,505	4,512	5,550
Electricity	2,172	1,926	1,507	1,641
Total energy consumption	7,528	7,431	6,019	7,191
<b>Water (m³)</b>				
Water (sanitation, process water)	3,910	3,363	3,365	3,787
<b>Output</b>				
<b>Residues and waste (t)</b>				
Industrial municipal waste	88.0	72.7	59.4	75.5
Paper/cardboard	128.7	111.1	102.6	118
Wood/sawdust	116.7	108.9	80.9	58.7
Ferrous metals	17.9	14.8	36.4	20.6
Aluminum	7.1	4.4	3.4	3.6
Packaging film	6.1	7.7	9.3	8.5
Leather	9.4	5.8	4.6	0
Textiles/upholstery materials	5.0	4.5	3.1	0
Mixtures containing solvents (VOCs)	0.6	0.6	4.7	0
Aqueous waste, halogen-free treatment emulsions	11.2	9.5	9.3	19.1
Others	9.0	28.3	32.2	8.3
<b>Total residues and waste</b>	<b>400.2</b>	<b>368.3</b>	<b>345.9</b>	<b>312.3</b>
<b>proportion of hazardous waste</b>	<b>18</b>	<b>15.3</b>	<b>18</b>	<b>21.7</b>
<b>Energy from renewable sources (%)</b>				
Heat	44	47	55	40
Electricity	30	40	40	100
Total	40	45	51	54
<b>Emissions (t)</b>				
Carbon dioxide (CO <sub>2</sub> ) Production and offices	1.665	1.712	1403	1726
Carbon dioxide (CO <sub>2</sub> ) Mobile (vehicle fleet)	287	303	281	269
Solvents (VOCs)	6.1	5.0	2.1	
Dusts (PM)	0.01	0.01	<0.01	<0.01
Nitrogen oxide (NO <sub>x</sub> )	0.6	0.6	0.55	0.58
<b>EMAS core indicators</b>				
Total value creation (EUR millions)	25.7	26.2	22.5	26.6
<b>Emissions</b>				
Carbon dioxide emissions (t/million euros)	64.7	65.3	62.4	64.9
<b>Energy efficiency (MWh/million euros)</b>				
Electricity and heat consumption	292.6	283.6	267.9	270.4
Energy from renewables	99.5	96.4	137.3	116.0
<b>Material efficiency (t/million euros)</b>				
Total consumption of feedstock and supplies	115.1	43.9	109.3	109.9
Total waste	15.6	53.5	15.4	11.7
Hazardous waste	0.7	2.6	0.8	0.8
<b>Water (m³/million euros)</b>				
Total consumption	152.0	128.4	149.8	142.4

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

This 2022 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 2023.

**About this publication**

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