

Environmental statement update **2019**

Update of the consolidated 2017–2019 environmental statement



The Wilkhahn brand has stood for superbly designed office furniture with practical innovations for many years. Wilkhahn has been successful across the world for decades due to its unique and timeless German-made design in Bauhaus tradition. Typical examples are the company's ON, IN and AT ranges of office task chairs with their free-to-move concept, which make offices more physically active places without compromising on good design, comfort and contemporary ergonomics.

Wilkhahn's office furniture is underpinned by a sophisticated concept. It's made to stringent quality standards, is intuitive to use and sustainable at the same time. The fact that components are easy to dismantle makes replacing expendable parts cost efficient and environmentally friendly and extending product lives easier. And by choosing high-quality materials and labelling all components throughout, most of the materials can be recycled once the product has reached the end of its useful life.

Wilkhahn is an owner-managed, medium-sized company whose maxim is fairness. In addition to protecting the environment, it has also been applying and improving health and safety in the workplace and health management programmes for decades. Furthermore, Wilkhahn is committed to the 10 principles set out in the UN Global Compact and believes this is a solid basis for collaborating with suppliers, customers and other stakeholders.

Wilkhahn has voluntarily maintained an integrated management system at its headquarters in Bad Münde, Germany, based on the ISO 9001, ISO 14001 and EMAS international standards since 2002. Standard procedures are just as systematically geared towards achieving the quality goals as the ecological and social sustainability ones in order to ensure that customer satisfaction, environmental performance and a high level of health and safety are improved on an ongoing basis.

Wilkhahn will report on any successes relevant to EMAS during 2018 in this 2019 environmental statement. As usual, brief texts plus graphics and spreadsheets will provide information on the development of key sustainability aspects.



In August 2018, Wilkhahn was one of the first 15 companies to be presented with an award by Lower Saxony's Alliance for Sustainability for its exemplary commitment to its workforce and to environmental protection.

Contents.

Product responsibility	3
Sustainability goals and sustainability performance	4
Sustainability programme of action	5
Material and energy flows	7
Legal notice	8



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

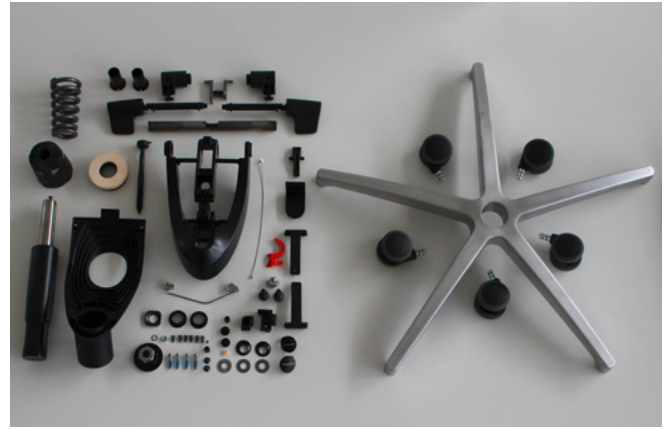
Principle 9:

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.



Product responsibility.

Our antidote to the throw-away society is to provide products where form, function and materials have a practical 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 district heating and heat recovery in manufacturing;
- we reduce emissions, by utilising solar power, climate-neutral energy sources (cutting CO₂) and varnishing techniques that are low in solvents.

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 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 an international framework agreement on global recognition and fostering of employee interests.



Sustainability goals and sustainability performance.

Emissions

Wilkhahn uses various renewables in order to cut emissions at its Bad Mnder headquarters. In 2018, 40% of the energy required to manufacture furniture and for the offices came from climate-neutral district heating, photovoltaics and solar-thermal power. This equates to an increase of 6 percentage points compared with the previous year.

The carbon dioxide emissions caused by the production department and management building dropped to just 1,667 tonnes in 2018, compared with 2,050 tonnes in 2017.

Compared with the baseline scenario where the heat and electricity for production departments and offices only comes from conventional fossil-fuel sources, this corresponds to an annual saving of more than 1000 tonnes of carbon dioxide.

In 2018, the carbon dioxide emissions from the Wilkhahn vehicle fleet rose slightly to 287 tonnes compared with the previous year. In the 2013 reference year, this figure was way above 450 tonnes. Two reasons for the significant drop lie in the much lower mileage covered by the Wilkhahn vehicle fleet due to improved tour planning and more local

organisation of customer services. Furthermore, Wilkhahn chooses energy-efficient vehicles and replaces old vehicles as soon as required. Wilkhahn picks efficiency-enhancing technology such as an automatic start-stop system in all new vehicles. The Wilkhahn vehicle fleet also included an electric car and two hybrid vehicles. In January 2018, the company also opened its own electricity charging station at the Wilkhahn headquarters in Bad Mnder.

Electricity consumption

Last year, Wilkhahn was able to decrease relative electricity consumption by 7%. In the case of relative electricity, the absolute electricity consumption and sales compared with the 2013 reference year were examined. In 2018, at 2,172 MWh, absolute electricity consumption dropped by about 2% compared with the previous year.

This was achieved by making efficiency improvements such as the use of a more efficient compressed air dryer and LED lighting in parts of the manufacturing departments and in Wilkhahn's showroom.

Solvents (VOCs)

Last year, approx. 6.1 tonnes of organic solvents were emitted into the environment at the Wilkhahn headquarters in Bad Mnder. This equals a drop of 10% compared with the previous year. Table top manufacturing was responsible for approx. 4.1 tonnes and chair upholstery for 2 tonnes of organic solvent emissions. Therefore, the statutory emissions threshold of 15 tonnes of VOCs per year was more than complied with as regards varnishing and gluing in 2018 too. Due to the low quantities, no negative environmental impact is to be expected.

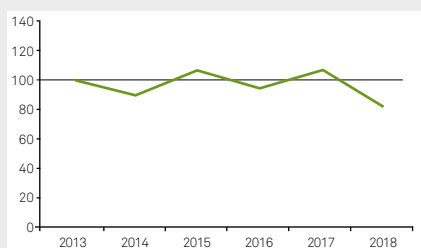
Wilkhahn carries out regular workplace assessments to protect its employees. The potential health risks associated with processing materials containing solvents are prevent-



Wilkhahn has had an electricity charging station that enables short battery charging times at the Bad Mnder headquarters since January 2018.

Development of waste 2013 – 2018

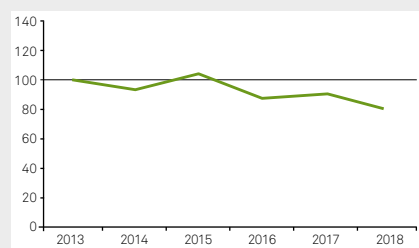
Index value (reference year 2013 = 100)



— Total waste

Emissions of organic solvents (VOCs)

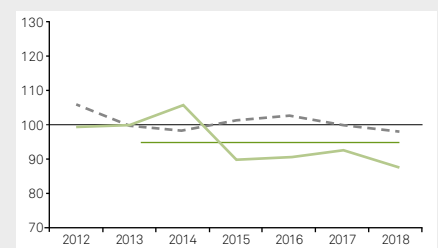
Index value (reference year 2013 = 100)



— Total solvent emissions (VOCs)

Development of relative electricity consumption

Index value (reference year 2013 = 100)



— Environmental goal: 5% less electricity consumption (based on consumption + sales 2013)
 - - Electricity consumption index 1 (consumption figures 2013 = 100)
 — Electricity consumption index 2 (consumption/sales; 2013 = 100)



Greenguard™

Wilkhahn places emphasis on good indoor air quality. 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

ed by taking appropriate steps in terms of organisation, technology and personal protective equipment. For example, high-performance extraction systems prevent the generation of solvent concentrations harmful to health in the workplace.

Residues and recycling

In 2018, 400 tonnes of residues were produced at Wilkhahn's Bad Münders site. This was a steep drop of 24% compared with the previous year. Compared with the 2013 reference year, this equals a decline in absolute quantities of 19% and of 27% when adjusted to take sales into account.

About a third (29%) of the total was attributed to scrap wood including sawdust from table top manufacturing and pallets. At 32%, cardboard and cardboard boxes accounted for a high proportion and, at 22%, commercial waste was also significant. In 2018, at approx. 18 tonnes, less than 5% hazardous waste was produced.

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

Transport packaging

Nevertheless, Wilkhahn still makes sure that transport packaging is non-toxic, easily recyclable and avoided if possible. In 2018, Wilkhahn still used 321 tonnes of packaging materials, a good third (36%) less than in the reference year of 2013. In addition to optimised manufacturing and shipping workflows, the reason also lies in a fall in the proportion of exports to non-European markets. The proportion of eco-friendly packaging from renewable materials was 84% last year.

Use of materials, water, soil, biodiversity

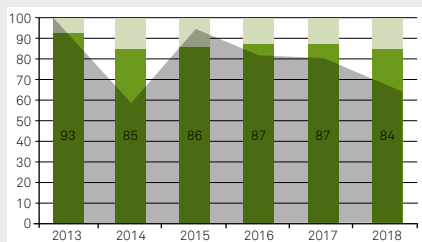
There was no change in these aspects compared with the previous year.



Since 2017, Wilkhahn has been increasingly choosing reusable packaging and therefore cutting resource consumption.

Development of packaging quantities

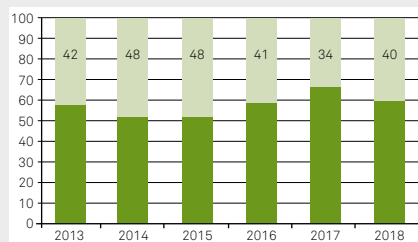
Index value (reference year 2013 = 100)



■ Development of packaging quantities (2013 = 100)
 ■ Transport packaging made of plastics
 ■ Transport packaging made of renewable materials (wood, cardboard)

Proportion of energy from renewable sources

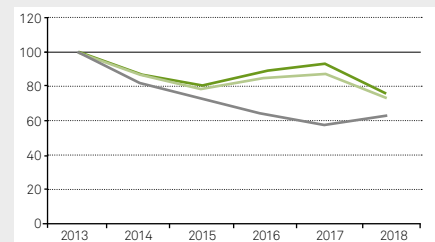
Details in percent



■ Renewables (biomass, photovoltaics, solar-thermal power)
 ■ Fossil fuels (heating oil)

Development of CO₂ emissions

Index value (reference year 2013 = 100)
























■ CO₂ emissions production and management
 ■ CO₂ emissions vehicle fleet
 ■ CO₂ emissions in total

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 2017 – 2019 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.

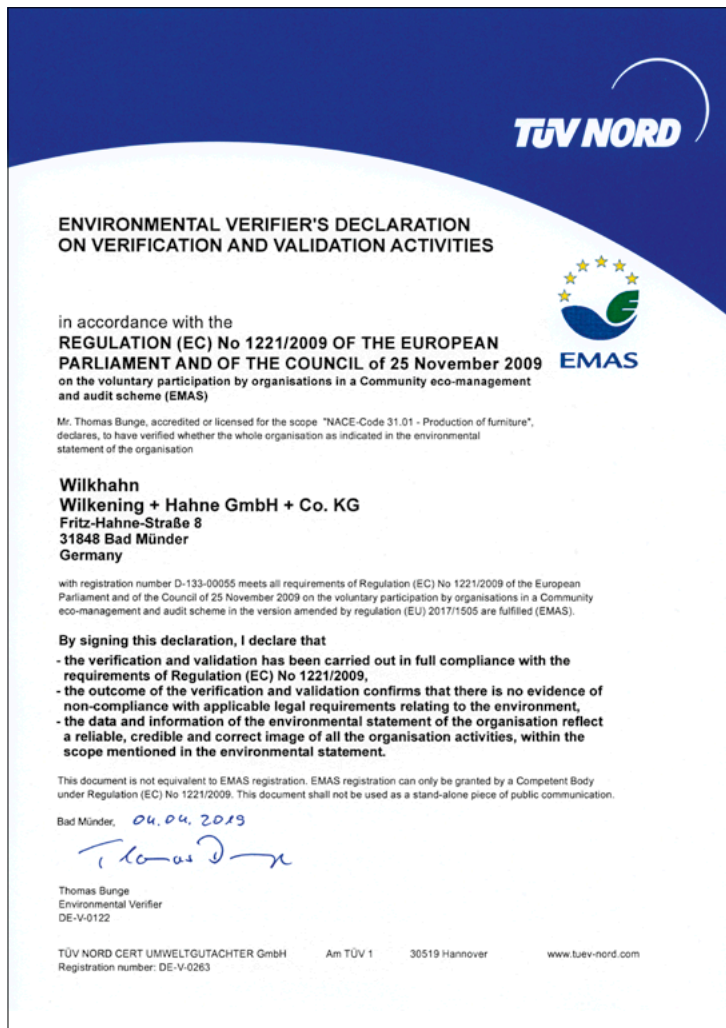
No.	Goal	Measure/comment	Status	Date	Responsible
1	Protecting the climate, CO₂ avoidance: <ul style="list-style-type: none"> replacing fossil heating fuel at the Bad Münden site by renewables (at least 50% from 2018), the CO₂ emissions by the vehicle fleet are to be decreased by 20% by 2019 (compared with the 2013 reference year), the CO₂ emissions during deliveries are to be cut further. 	Use CO ₂ -neutral district heating generated from biogas and maximise its share in total heating requirements.	 Ongoing	2018	Head of works technology
1a		Fitting of a new heat exchanger to increase the proportion of CO ₂ -neutral district heating from biogas	 Implemented	2019	Head of works technology
2		Reduce consumption of heating oil and the associated CO ₂ emissions by 5% by integrating an external warehouse.	 Started	2019	Head of works technology
3		Continue to cut absolute power consumption of Wilkhahn vehicle fleet by introducing energy-efficient vehicles with low exhaust emissions	 Started	2019	Vehicle fleet manager
4		Draw up a concept for using electric and hybrid vehicles.	 Started	2018	Management appointee
5		Logistics services provides appointed use energy-efficient and low-emission vehicles (at last Euro 5 exhaust gas standard).	 Ongoing	2018	Material management head
6		By optimising tours, the loading volume per lorry used will be increased to at least 85% by 2018.	 Started	2018 2020	Material management head, chief operations officer
7	Better packaging units and sizes allow safe and volume-optimised dispatch.	 Ongoing	2018	Product development, process planning, material management	
8	Energy efficiency in these cases: to cut relative electricity consumption by 2019 by 5% (compared with the 2013 reference year). Effective from 12/2017: -7% Effective from 12/2018: -12%	Use LED lighting in selected production areas.	 Implemented	2018	Head of works technology, company technicians
9		Draw up and implement an energy-efficient lighting concept for the Wilkhahn showroom in Bad Münden.	 Implemented	2018	Head of works technology, company technicians
10		Replace older compressed-air compressors with new energy-efficient ones. Measure implemented.	 Implemented	2017	Head of works technology
11		Check compressed-air devices regularly for leaks.	 Ongoing	2018	Head of works technology, company technicians
12	Optimise use of materials: long-lasting and repair-friendly products, materials low in pollutants, less delivery packaging, fewer remnants.	Develop innovative, long-lasting and repair-friendly office furniture and use eco-friendly materials and production methods low in pollutants.	 Ongoing	2018	Product review, product development
13		Switch partial deliveries to reusable packaging systems to reduce packaging waste.	 Implemented	2018	Material management head
14		Permanently cut down on material waste in manufacturing by introducing a quality bonus incentive system.	 Implemented	2017	Chief operations officer
15		Reduce water consumption in the sanitation areas by using pressure regulators in taps.	 In planning	2017 2019	Head of works technology
16	Encouraging sustainability in the supply chain, fairness and health.	Sustainable supply chain: make regular checks on the top 20 suppliers re quality, health and safety and environmental protection as well as fair working conditions.	 Ongoing	2018	Quality control, management appointee
17		Maintain chain-of-custody certification in line with the specifications of the Forest Stewardship Councils® (FSC).	 Ongoing	2018	Management appointee
18		Carry out regular health days at the Bad Münden headquarters.	 Ongoing	2018	Company health management team
19		Maintain and develop health-boosting programmes for Wilkhahn employees.	 Ongoing	2018	Company health management team
20		Continued support of the dwarf beech initiative to protect biodiversity.	 Ongoing	2018	Management appointee

Material and energy flows: input/output.

Input	2014	2015	2016	2017	2018
Raw materials and consumables (t)					
Ferrous metals	675.7	702.6	661.1	574.7	626.3
Aluminium	584.2	658.8	497.8	642.3	597.8
Zinc	44.8	51.8	51.6	36.2	32.7
Wood	352.8	308.7	329.1	305.7	334.3
Laminates (HPL)	35.8	35.4	38.6	39.4	24.3
Plastics	579.1	902.7	934.5	853.5	960.4
Textiles/upholstery materials	29.3	19.2	23.9	18.9	47.0
Leather	17.7	18.6	16.0	19.1	13.4
Transport packaging (cardboard/wood)	251.5	406.5	349.9	348.3	270.8
Transport packaging (plastics)	43.5	64.2	52.2	51.3	50.1
Powder varnishes	3.7	4.1	5.6	5.9	5.2
Fuels (heating oil, diesel)	273.0	283.8	320.7	346.8	330.2
Energy – production and management (MWh)					
Heat	4,818	5,316	5,454	5,290	5,355
Electricity	2,187	2,251	2,272	2,223	2,172
Total energy consumption	7,004	7,568	7,726	7,513	7,528
Water (m³)					
Water (sanitation, process water)	3,305	7,692	3,604	3,745	3,910
Output	2014	2015	2016	2017	2018
Residues and waste (t)					
Industrial municipal waste	71.23	93.7	98.4	89.4	88.0
Paper/cardboard	147.33	164.7	147.6	137	128.7
Wood/sawdust	135.7	191.6	144.7	164.4	116.7
Ferrous metals	26.8	25.7	18.6	28.9	17.9
Aluminium	23.2	8.1	4.0	26.8	7.1
Packaging film	6.0	9.0	9.5	12.7	6.1
Leather	10.1	7.9	10.8	21.5	9.4
Textiles/upholstery materials	2.3	4.6	4.6	0.8	5.0
Mixtures containing solvents (VOCs)	1.0	2.0	1.8	1.4	0.6
Aqueous waste, halogen-free treatment emulsions	8.6	7.8	13.5	33.6	11.2
Others	9.1	7.6	14.6	8.6	9.0
Total residues and waste	441.3	524.0	468.1	525.1	400.2
proportion of hazardous waste	15.3	15.4	19.1	43.4	18
Energy from renewable sources (%)					
Heat	58	57	48	38	44
Electricity	25	25	25	25	30
Total	48	48	41	34	40
Emissions (t)					
Carbon dioxide (CO ₂)	2,303	2,103	2,247	2,057	1,665
Solvents (VOCs)	7.3	8.2	6.6	6.8	6.1
Dusts (PM)	< 0.01	< 0.01	< 0.01	< 0.01	0.01
Nitrogen oxide (NO _x)	0.2	0.2	0.27	0.25	0.6
EMAS core indicators	2014	2015	2016	2017	2018
Total value creation (EUR millions)	22.8	28.3	28.7	25.9	25.7
Emissions					
Carbon dioxide emissions (t/million euros)	101.1	81.3	80.3	79.5	64.7
Energy efficiency (MWh/million euros)					
Electricity and heat consumption	307.4	267.1	269.3	290.5	292.6
Energy from renewables	146.3	126.9	110.5	98.8	99.5
Material efficiency (t/million euros)					
Total consumption of feedstock and supplies	126.9	122.0	114.4	112.0	115.1
Total waste	19.4	18.5	16.3	20.3	15.6
Hazardous waste	0.7	0.5	0.7	1.7	0.7
Water (m³/million euros)					
Total consumption	145.0	271.5	125.6	144.8	152.0

Wilkhahn

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With its EMAS-validated and ISO 14001 certified environmental management system, Wilkhahn is taking responsibility for sustainably protecting our environment.

This 2019 environmental statement updates the consolidated environmental statement that covers the years 2017 to 2019.

In this 36-page brochure, Wilkhahn reports on the company's environmental performance and other aspects of sustainability. It's available as a PDF to download from the Wilkhahn website and in German, English and Dutch in print.

The next consolidated environmental statement with sustainability report will be published in April 2020.

Legal notice

Published by: Wilkhahn
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