



Environmental Statement 2023

for 2020-2022



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1. Company portrait

FreiLacke. More than just coatings – innovation meets experience.

FreiLacke has stood for innovative paints and coatings since 1926. The family business is now run by a third generation and, with a staff of more than 600 employees at its location in Döggingen at the Döggingen/Black Forest location.

As a modern family-run company now in its third generation, the safeguarding of the head office is just as important as our worldwide sales and our international subsidiaries and partners.

The product range of Europe's leading system coating provider covers the entire spectrum of industrial coatings, powder coatings and electrodeposition coatings all the way through to products and surface solutions for composites. Its international sales are carried out through a global network of foreign subsidiaries and partners.

The manufacture of coatings and coating materials is certified according to ISO 9001 and meets all requirements of the automotive industry in accordance with IATF 16949.

The two production buildings for liquid coatings and powder coatings are separated from each other by a public street. The validity of the environmental statement covers both areas.

Environmental protection has always been a key priority for us. Therefore, the company

makes every effort to develop environmentally friendly products, reduce emissions, packaging materials and waste and use resources sparingly. The environmental management system has met the requirements of EU Regulation 1221/2009 (EMAS) for many years.

The entire company is designated as a commercial area with an adjoining mixed area. Residential development is immediately adjacent. According to information that is currently available, the location is free from contamination. In the vicinity, there are no designated protected areas.

FreiLacke has been recognised by Great Place to Work® as a particularly good company for training and also as the best employer in the Manufacturing & Industry and Baden-Württemberg categories. With a training quota of 10 %, great importance is placed on the training of young people.

With this environmental statement, we would like to inform both the public and our employees about our environmental protection activities in previous years, as well as those planned in the future.

Hans-Peter Frei, Technical Director



2. Corporate policy



FreiLacke Company policy

As a long-standing, well-known manufacturer of high-performance coating systems, we combine innovative ideas with the traditional values of a family-run company every day. In this environment, we see ourselves as a competent, reliable partner for all of our interest groups. We align our business processes from a holistic perspective and take quality, environmental, occupational safety and economic aspects into account to the same extent.

We stand by our social and societal responsibility and are committed to the following principles:

- We meet the requirements and needs of our customers and create tailor-made ones System solutions at a high quality level. We convince our customers with our products and comprehensive service. This is how we create trust for long-term cooperation.
- We support the success of our company through qualified and motivated employees and promote the corporate culture set out in the code of conduct, management principles and corporate values.
- We identify and minimize the risks in our processes and in this way create a healthy and safe environment for our employees, business partners and neighbors.
- We actively support the Responsible Care Initiative of the Chemical Industry Association. Our product and process developments serve to protect the environment and produce environmentally friendly and safe products. We conserve resources, minimize waste and emissions and reduce the use of substances that are hazardous to the environment and health. For us, preventing incidents and limiting possible impacts is a corporate goal with increased prioritization.
- We are committed to complying with legal and regulatory requirements.
- We continually improve our quality, occupational safety and environmental performance. We regularly set goals and check whether goals have been achieved during our management meetings and employee appraisals. The responsible actions of our managers regular internal audits and the involvement of our employees improvement processes are important building blocks for the successful further development of our company.
- We maintain an open and cooperative dialogue with our internal and external stakeholders.
- All employees have an obligation to contribute through their behavior and suggestions to preventing accidents, To avoid illnesses, hazards at work and the associated risks. All employees are involved in decisions and risk assessments relevant to occupational safety included and actively involved. The employee representatives are involved in advance on relevant occupational safety issues.
- We maintain fair and cooperative relationships with our suppliers. We ask them the same high standards, such as those we place on ourselves, and we want to achieve top performance together with them.
- Our integrated management system meets the requirements of ISO 9001, IATF 16949, EMAS III as well ISO 45001 and is certified by accredited companies and commits us to ongoing improvement of systems.



Dr. Rainer Frei
Managing director
Commercial director

Hans-Peter Frei
Managing director
Technical director

Roland Bäurer
Authorized representative

Rosemarie Vasseur
Works council chairman

3. Company history

Ecological milestones

Preventive environmental protection is an integral part of operational planning and implementation of measures, which are listed below and make a significant contribution to environmental and climate protection:

1926
Foundation of the business Emil Frei in Döggingen as a wholesaler for coatings, paints and painting accessories.

1968
Start of the development and production of powder coatings.

1969
Start of the development and production of water-soluble electrodeposition coatings.

1995
Commissioning of the new liquid coating production.

2000
Commissioning of the expanded powder coating production with automated control of the dosing system for raw materials via silos and an efficient cooling water circuit.

2009
Commissioning of the automated central warehouse for raw materials and finished products with a capacity of approx. 5,000 storage spaces for Euro pallets incl. the corresponding safety installations.

2019
New powder coating production building: Commissioning of the new production line 23

2020
Commissioning of administration building and expansion of development laboratory for wheel coatings

Today
~ 600 employees
€172 million turnover
Training quota above 10 %

Company



Two generations



External company management



Third generation



3. Company history

Ecological milestones

3.1 System coatings and coating systems

System coatings – various coating systems, one look

The word "system" refers to the functional entity created from several interconnected components. Today, this term can be applied to a variety of products and services. Again and again, the main challenge is to ensure that all components are coordinated to each other to such a degree that the result is an optimal, comprehensive and qualitatively unique solution.

We at FreiLacke have been meeting this challenge with great success for more than 90 years.

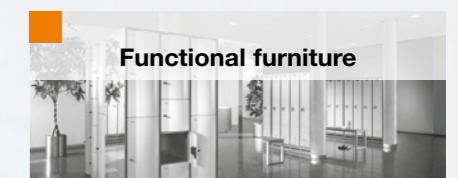
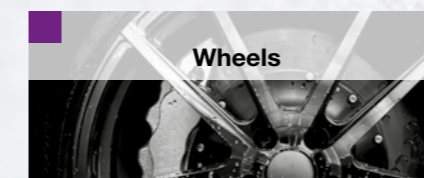
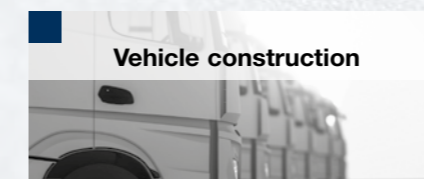
Traditionally, we develop and produce all coating systems under one roof. Therefore, we do not merely provide you with all the important coating technologies, but also tailor them to your individual needs with regard to coating composition and optics.

The advantages: best material properties, consistent colour results (even with varying products and coating types) and the needs-based configuration of individual coatings – and all from one source.

Industry sectors

Working together with its partners, **FreiLacke** develops customised system components and techniques for all areas of application in the following industries: wheels, vehicle construction, mechanical and apparatus engineering, job coaters, functional furniture and storage technology as well as construction and sanitary fittings.

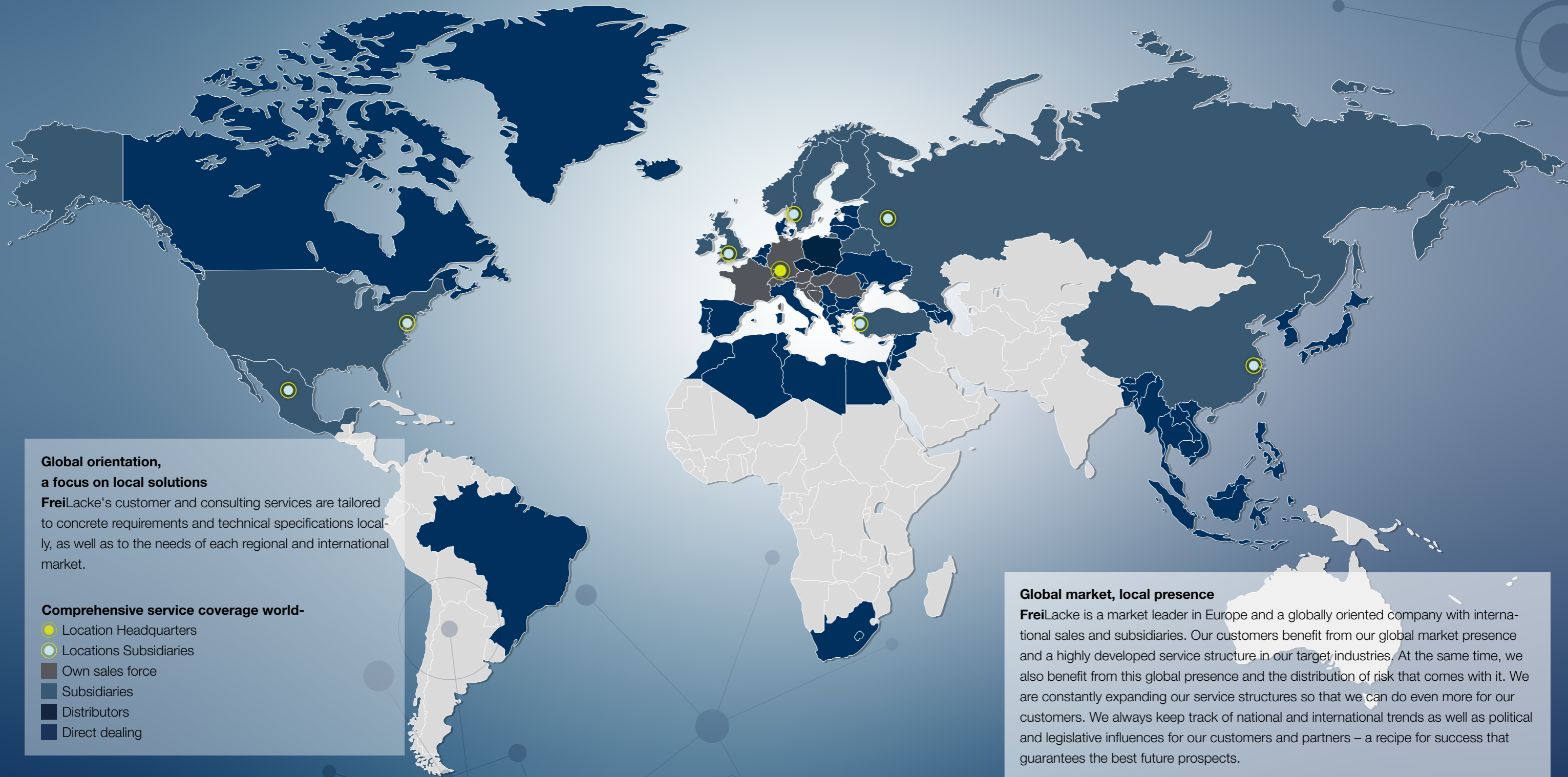
No matter which industry you are from – personal support is always our priority.



3. Company history

Ecological milestones

3.2 Internationality



3. Company history

Ecological milestones

3.3 Development

Progress and inventive talent

Our aim is to constantly develop trailblazing innovations in coating technology. As such, **FreiLacke** places a very high value on close cooperation with customers and suppliers, as well as on research and development. Thanks to this strategy, our experience spanning over 90 years and the expertise of our engineers, technicians, production, sales and quality and environmental management, we can develop innovations that set the highest standards.

As we work interactively, all improvements and new products are consistently in line with the market and with the growing standards for environmental compatibility.

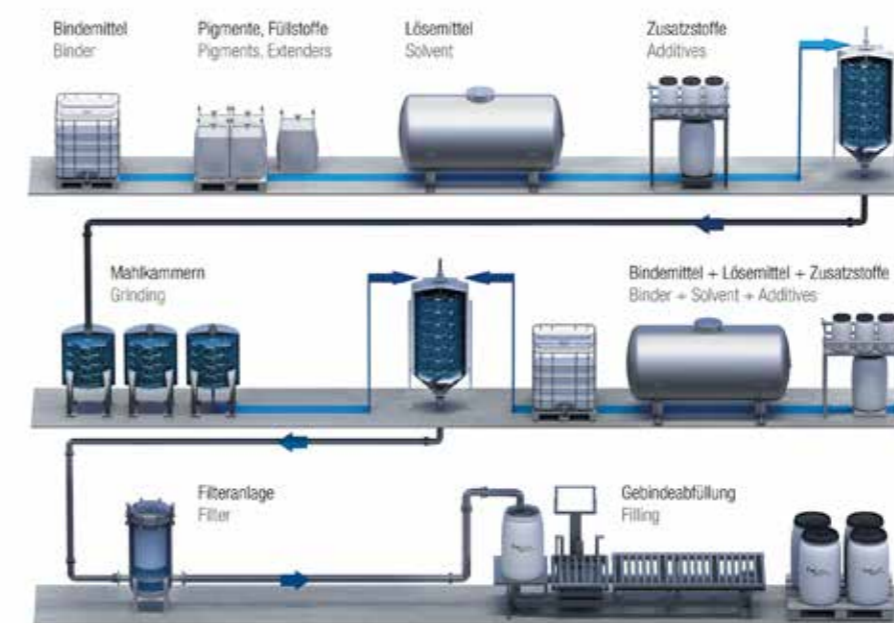
All products and processes are tested until market maturity and optimised for the respective industry and needs-based applications; they are also aligned with new raw-material technologies and with new process and plant engineering.



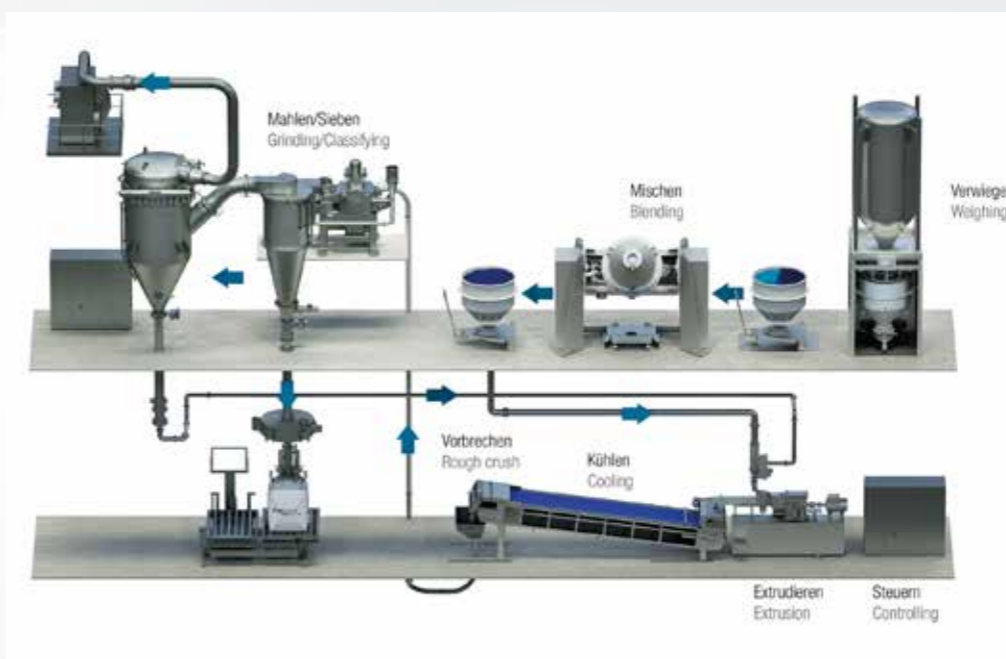
Flexibility and security

In FreiLacke production, all processes are coordinated and synchronised to optimum effect. Direct collaboration with our in-house development laboratories and a streamlined organisational structure enable us to manufacture our solutions quickly, economically and with careful use of resources.

Thanks to the fact that we develop and produce both liquid and powder coatings, we are able to react flexibly to the needs of our customers and are well-positioned for the future.



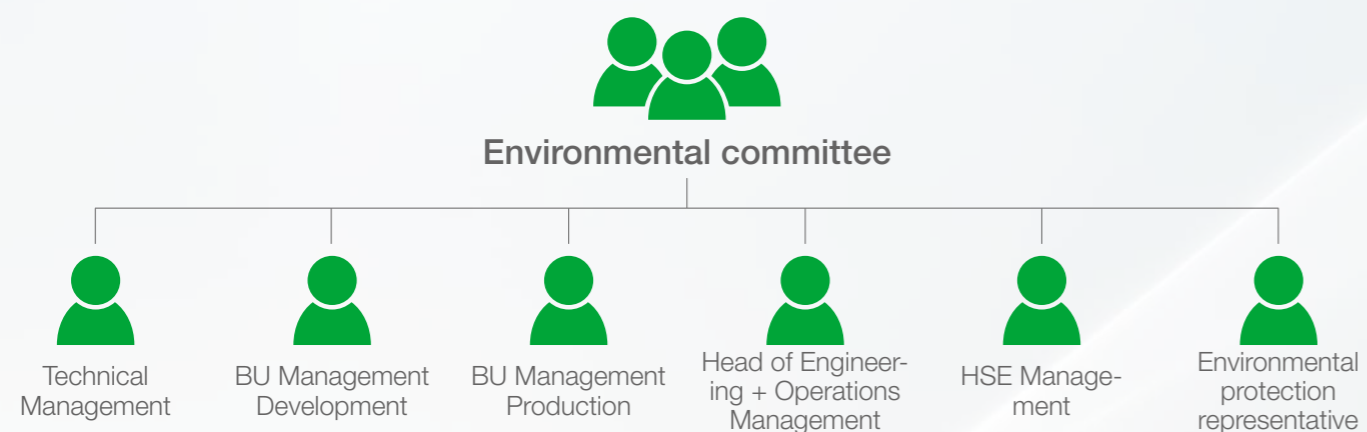
Liquid coating production process



Powder coating production process

4. Environmental management system

The quality management and eco-management systems of **FreiLacke** have been certified by accredited certification companies or validated and registered by an approved appraiser for more than 20 years. Based on the high level structure of the ISO management system standards, **FreiLacke** has set itself the goal of continually developing ISO 9001/IATF 16949/EMAS III and ISO 45001 into an integrated management system. This approach allows us to view all business processes as well as our goals for the environmental programme on a regular basis and continuously improve them in the environmental committee.



The following key topics are dealt with in the environmental committee:

- 1.** Evaluation of the importance of the relevant environmental aspects taking into account the requirements of Annex I of the EMAS III Regulation
- 2.** Definition of the targets for 3 years based on the most recent basis
- 3.** Regular co-ordination for reviewing and monitoring the current target achievement of our environmental performance
- 4.** Determination of measures for improving the environmental performance

4.1 Environmental organisation

The current environmental organisation is defined as follows:

HR department	Tasks
Management	<ul style="list-style-type: none"> Responsible for the EM system Sets the environmental policy, goals and programmes Responsible for keeping the public informed Names the EM representative Assigns responsibility for commissioned representatives
Technical Director	<ul style="list-style-type: none"> The technical director, as member of the company management, is responsible for environmental protection and occupational safety. He is responsible for investments, operation and maintenance of plants, handling accidents and preparing permit applications for the authorities.
Process Management	<ul style="list-style-type: none"> The jobholder promotes, coordinates and monitors the UM system as the central interface the UM-System Carries out internal environmental audits prepares and updates the environmental the environmental handbook and the environmental statement
EM committee	<ul style="list-style-type: none"> Consultation and monitoring of the proper and timely implementation of measures Development of guidelines and proposals for the EM system, environmental programme, correctional measures and accident plans
Operations representatives	<ul style="list-style-type: none"> The representatives for waste, disposal, emissions, hazardous goods and product safety assume their responsibilities in accordance with legal and internal regulations.
Plant fire brigade	<ul style="list-style-type: none"> Development of alarm plans Regular emergency exercises Active participation in accident and fire prevention

4. Environmental management system

4.2 Compliance with laws

Compliance with requirements and obligations mandated by environmental laws

In its environmental policy, **FreiLacke** has committed to meeting all applicable environmental requirements. In part, this means complying with the provisions of the following laws and their relevant provisions, subsequent regulations and official requirements:

Legal area	Example
Waste legislation	<ul style="list-style-type: none"> • KrWG (Waste Management and Product Recycling Act) • VerpackG (Packaging Act)
Plant safety legislation	<ul style="list-style-type: none"> • ÜAnIG (Law on facilities requiring monitoring) • Directive 2006/42/EC
Occupational safety law	<ul style="list-style-type: none"> • ASiG (Association for the integration of work/business and school) • ArbSchG (Occupational Health and Safety Act)
Chemical law and hazardous goods law	<ul style="list-style-type: none"> • VO 1272/2008/EC (CLP-VO) • VO 1907/2006/EC (REACH) • Agreement on the International Transportation of Dangerous Goods by Road (ADR) • ChemG (Chemicals Act)
Energy law	<ul style="list-style-type: none"> • GEG (German Energy Act for Buildings) • GEIG (Building Electric Mobility Infrastructure Act)
Water protection law	<ul style="list-style-type: none"> • WHG (Regulation of the Water Household) • WG Baden-Württemberg
Federal Immission Control Act	<ul style="list-style-type: none"> • BImSchG (Federal Pollution Control Act)

The currently applicable environmental requirements are analysed on a regular basis. This includes the involvement of the operations representatives, managed using data-bases and the delegation of duties to the respective plant operators so that they can implement them. Furthermore, using audits and inspections, the compliance with obligations arising from environmental laws is assessed on a regular basis and suitable corrective measures are initiated in case of deviations

Applicable law is adhered to and any legal measures identified have been coordinated with the authorities. Identified vulnerabilities are dealt with in cooperation with the responsible authorities and measures determined.



5. Environmental aspects

5.1 Evaluation of environmental aspects

Compliance with requirements and obligations mandated by environmental laws

As part of the eco-management, **direct** and **indirect** environmental aspects were considered, which impact the environment.

To evaluate the direct environmental aspects, we have developed an index procedure that enables a transparent and comprehensible classification of the aspects. The criteria for assessing the environmental aspects correspond to the requirements of Annex I of the EMAS III Regulation.

1. Environmental hazard potential
2. Vulnerability of the local, regional or global environment
3. Extent, number, frequency and reversibility of the aspects or effects
4. Existence of relevant environmental regulations and their requirements
5. Importance for stakeholders and employees of the organisation

The following **direct** environmental aspects were assessed by the environmental committee and identified as significant:

1. Energy
2. Airborne emissions from processes
3. Wastewater
4. Waste
5. Emergency planning

Some of the direct environmental aspects correspond to the influencing parameters of Scope 1 of our sustainability concept. Scope 2 and Scope 3 essentially represent the indirect environmental aspects.

The following **indirect** environmental aspects were assessed by the environmental committee and identified as significant:

1. Environmentally friendly products
2. Environmental performance of suppliers
3. Mobility of the employees

5.2 2020 environmental programme

Our environmental performance is presented as follows. The measures and activities are explained in more detail in Chapter 5.4 Achieving ecological goals. The environmental programme for the next three years can be found in Chapter 8.

	Targets	Unit	Basis (2019)	Target (2022)	Year 2020	Year 2021	Year 2022	Abw 2022/ Basis in %	Abw 2022/ Target in %
1	Power consumption	kWh/t	400.8	390.0	431.0	398.4	411.6	● 2.7	● 5.5
2	Compressed air power consumption	kWh/m ³	0.103	0.103	0.103	0.102	0.100	● -2.7	● 2.7
3	Compressed air-specific consumption	m ³ /t	281.3	281.3	267.2	256.5	267.5	● -4.9	● -4.9
4	Heating energy	kWh/t	132.5	132.5	135.8	113.4	105.2	● -20.6	● -20.6
5	Waste Liquid coating production	kg/t	24.4	21.2	29.4	20.0	21.1	● -13.5	● -0.5
6	Waste Powder coating production	kg/t	56.8	52.0	44.0	37.3	34.7	● -39.0	● -33.3
7	Waste Municipal waste	kg/t	5.58	5.58	5.70	5.46	5.64	● 1.2	● 1.2
8	Freshwater	m ³ /t	0.200	0.190	0.213	0.170	0.271	● 35.7	● 42.9
9	Steps towards a CO ₂ -neutral company by 2026			See Measures					

5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.1 Energy

Use of renewable energies

Compared to 2019, specific electricity consumption increased by around 2.7 % in 2022. The reason for this is that, at the end of 2019, the expansion of the powder coating production, including the addition of a large logistics warehouse, went into operation. This expansion building increased the total energy consumption even though the highest energy efficiency standards were applied, which includes the following installations.



In order to meet our goal of continually reducing specific electricity consumption, a number of measures have been implemented or are being planned:

- Expansion of our PV system (photovoltaic system) on production building 5.6, which was completed in 2019, by 165 kVA. This step increases **FreiLacke's** PV system size to a total system size of 265 kVA. The electricity generated here is used entirely for our own needs on weekdays. The network is only fed into the network on weekends if the base load at the site is exceeded by the company's own generation.
- The building management system (BMS), which is an important instrument for reducing energy consumption, has been expanded to include automatically controlled load peak capping. This tool makes it possible to limit the load profile to a stored target value. For this purpose, defined consumers are briefly taken out of operation (load shedding).
- In the last 4 years, several large batch grinding systems have been installed in our powder coating production area. The system control was designed so that the system independently detects an idle run (no material available) and reduces the performance of system components by 50 %. When the required product is available again, the system increases the performance of the components in question back to 100 %. This control circuit makes it possible to save several kWh of electricity per year without having an impact on product quality.
- The liquid coating 2 production facility, built in 1992, still uses conventional lighting technology. In 2022, in the first construction phase, the lighting in the basement was converted to LED technology by the in-house technical department. As the project progresses, the remaining building levels will also be equipped with the latest LED lighting.



5. Environmental aspects

5.3 3 Direct environmental aspects

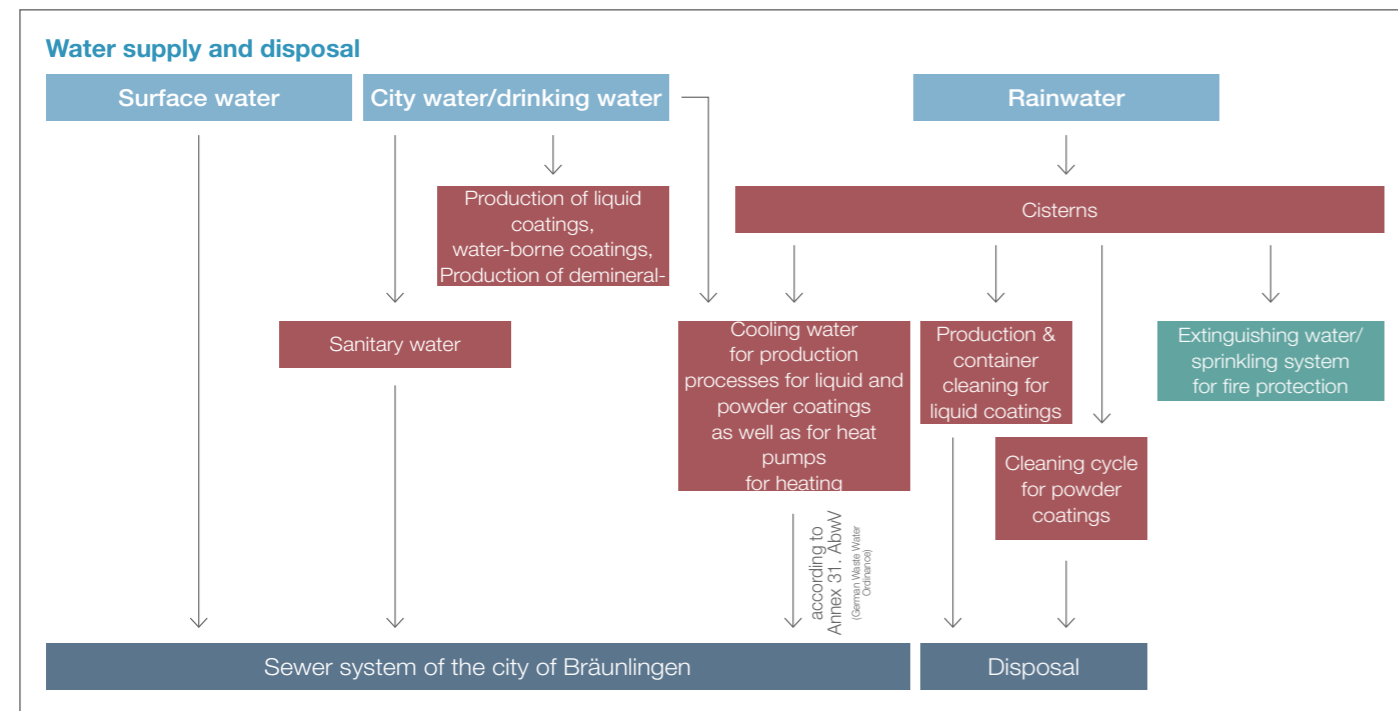
5.3.1 Energy

Use of rainwater in the cooling circuit

Rainwater

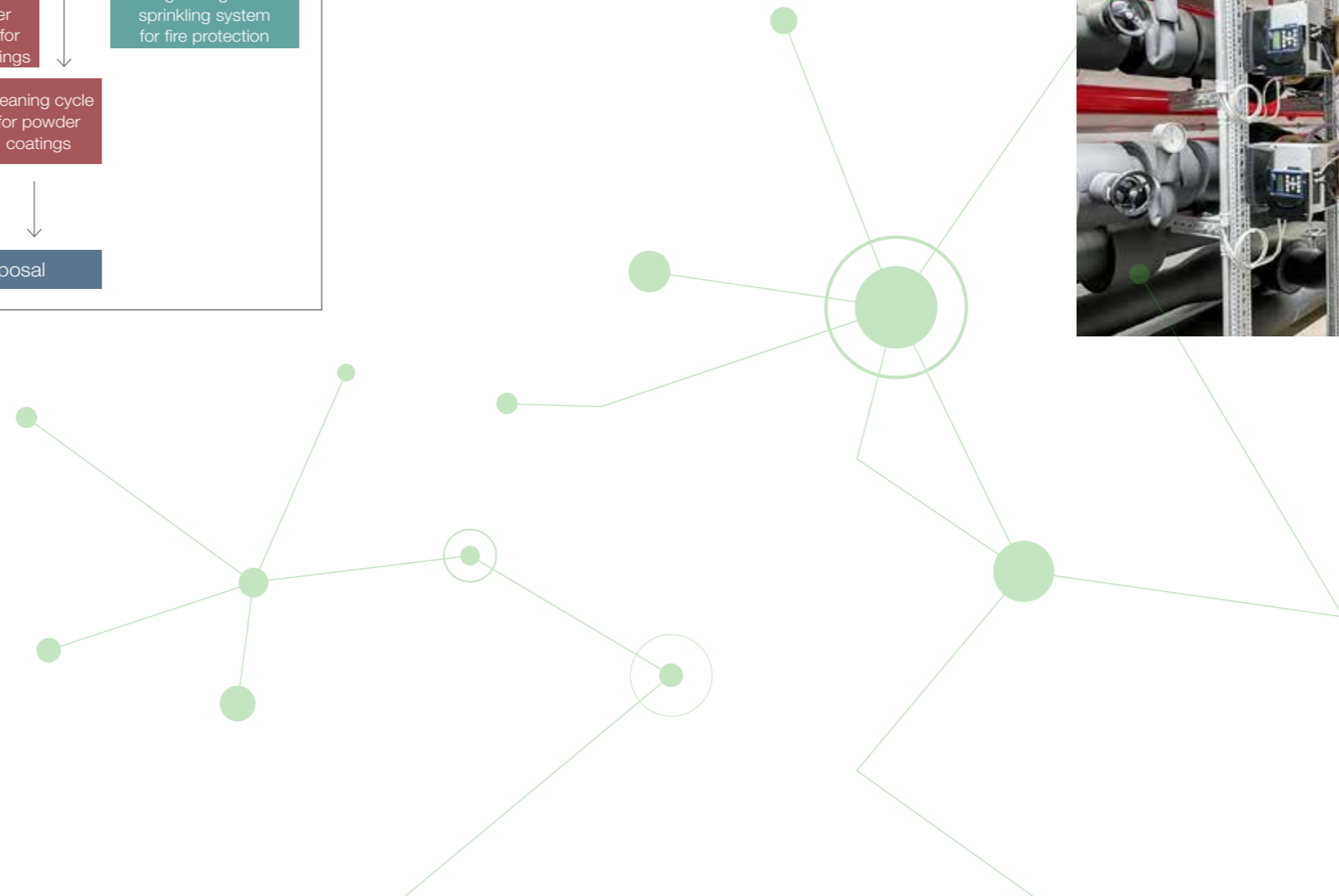
The company has paid great attention to the use and handling of water as a resource for many years. The consumption of freshwater has been continuously reduced since 1995. Freshwater is currently used for sanitary purposes

(including wastewater) as well as for the production of demineralised water for water-based coating production, whereby this quantity is counted excluding wastewater consumption. Rainwater is collected in cisterns on the roofs of several buildings and is used in several applications (see illustration).



Cooling circuit for production of powder coatings

Value creation in the area of cooling water generation for powder coating production was increased massively in 2022. The pumps installed for recooling (four 11 kW units) have been equipped with a frequency converter. This means that the pumps can be regulated via the building management system and controlled according to consumption. This measure reduced the power consumption of the pumps by 50 %, which corresponds to an annual electricity cost saving of around €22,000.



5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.1 Energy



New administration building 2020

Heating energy

New administration building

The administration building was completely renovated and an additional floor was added in 2020. As part of this measure, the building was brought up to the latest energy standards and equipped with a low-temperature heating circuit that is supplied by our heating system.



New heating system/ commissioning: 10/09/2017

Heating supply

As of 2017, the heating supply has had three gas-powered burners with a total heat output of 1.6 MWh. Heat consumption was further reduced because various new buildings were planned and constructed in an energy-efficient manner and heat pump technology has been successfully in use since 2010. The CO₂ emissions of the heating system are assessed as part of our sustainability report.

The long-term planned heating concept that has been implemented since 2010 with the help of heat pump technology – where the heat energy generated in the cooling processes is fed directly to the heat pumps for the heating process – has proven itself very well.

This made it possible to significantly reduce the consumption of fossil fuels, which had a very positive effect on both the CO₂ balance and economic efficiency. Compared to the energy consumption in 2010, the following energy efficiency could be achieved by 2022 (see table):

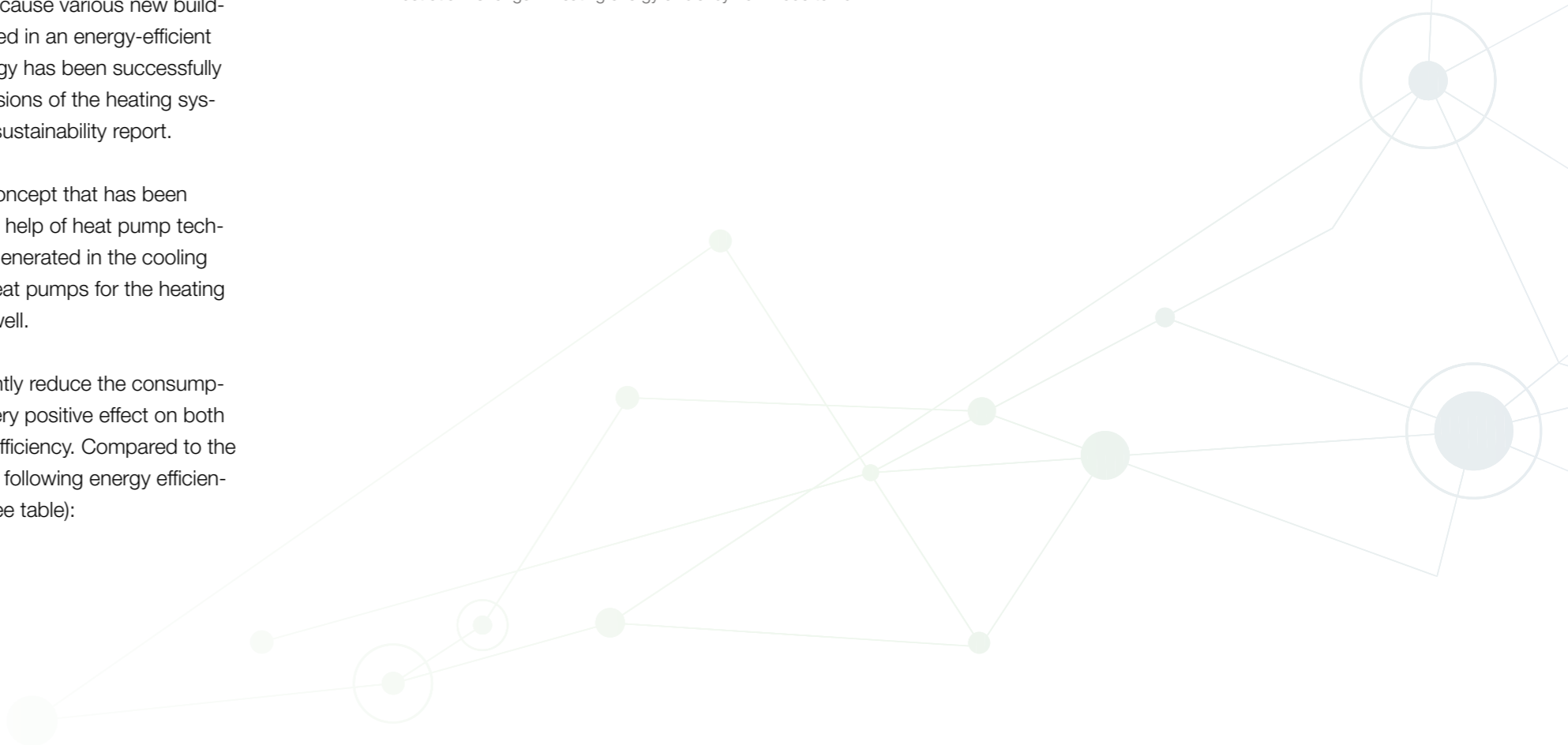


Heating pumps: Commissioning in 2010

Heating energy compared to the years 2006 to 2009

Gas, oil, electricity, heat pumps	Unit	Change from 2010 to 2022 per year (€/a)	Change from years 2010 to 2022 cumulative (€)	Change from 2010 to 2022 (%)
Consumption	Thousands of kWh	- 1,172	- 15,240	- 35.4
Costs	EUR	- 36,000	- 473,000	-20.9
CO ₂	t	- 313	- 4,075	- 35.8

Illustration: Change in heating energy efficiency from 2006 to 2022



5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.1 Energy

Energy efficiency of buildings

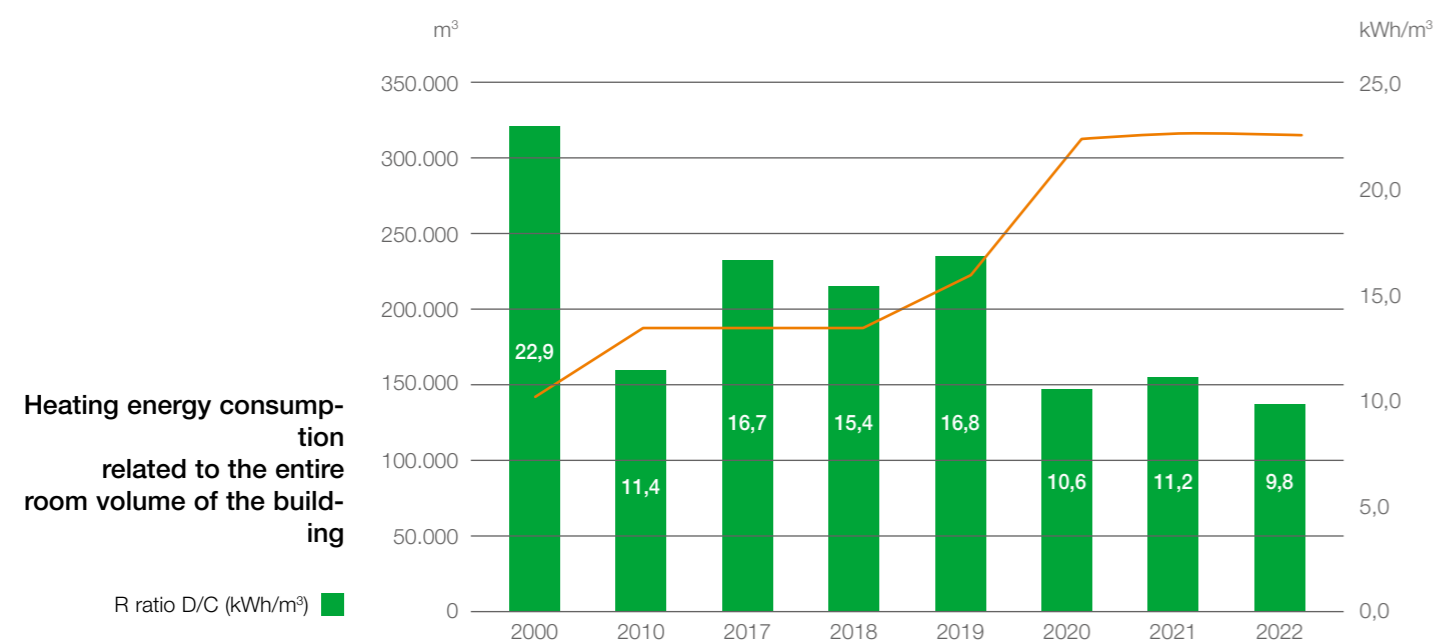
This good trend continued in both 2021 and 2022. Compared to 2019, the specific heating energy in 2021 was reduced by 14.4 %. In response to the gas shortage in Germany, we also heeded the call of the Federal Ministry of Economics and lowered our room temperatures by 2 °C to 19 °C in October 2022.

Particular attention is paid to functioning energy controlling with the help of the building management system, which allows weekly recordings and checks of meter readings to be analysed. In this way, we ensure that deviations can be identified and countermeasures can be taken.

The successful measures to increase energy efficiency for heating are shown in the following diagram. The develop-

ment of heating energy consumption in relation to building volumes from 2000 to 2022 is shown here.

When the room volume was increased by **120 %** by new buildings, the energy consumption for the heating was reduced at the same time by **57.1 %**, which corresponds to an annual **CO₂ saving of 15.2 t (a total of 334 t) for that period.**



Energy efficiency of buildings

Following the commissioning of the new compressed air supply in January 2012, which features two connected compressed air stations controlled by demand, our energy consumption and costs in recent years were significantly reduced again thanks to intelligent controls and the integration into the building services.

The higher-level control system was further optimised so that the different compressor running times could be harmonised. This made it possible to extend the maintenance intervals of the machines, which, in addition to the monetary effect, also reduced losses (waste) such as oils and filters.

Since 2011, annual cost savings of **€45,000** have been

Compressed air

Compressed air	Unit	Change from 2011 to 2022 per year (€/a)	Change from years 2011 to 2022 cumulative (€)	Change from 2011 to 2022
Consumption	Thousands of kWh	- 276	-3317	- 38.98
Costs	EUR	- 45,000	- 540,000	- 47.45
CO ₂	t	- 129	-1546	- 34.48

Illustration: Change in energy efficiency of compressed air generation from 2011 to 2022



New compressed air station: Since May

achieved with a significant reduction in the specific power consumption for generating 1m³ of compressed air by **38.9 % (2011: 0.144 kWh/m³ to 2022: 0.1003 kWh/m³).**

5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.2 Immission control

In liquid coating production, local extraction systems ensure the capture of solvent emissions, with dust-laden emissions being captured directly at their source using a separate aspiration system. Emission measurements take place on a regular basis. This determines the total carbon in our process exhaust air. The results of these measurements can be found in our annual solvent balance. Solvents that are processed in the distillation plant are currently used to clean machines/systems. With the aim of reducing these emissions in the area of the filling of paints and for various cleaning processes within production, concepts are being developed using environmentally friendly and, above all, aqueous cleaning agents. This should improve the room and air quality in the workplace.

In powder coating production, the focus of emissions is on the capture and separation of dust-laden substances and finished products. In the individual production processes, more work is being carried out on reducing or ideally suppressing dust emissions. Top priority is currently given to the development of a concept for a process with as little dust as possible in the weighing process in the pre-mixing plant.

The dust emissions are recorded using central aspiration filter technology and separated and retained in the filters with high separation rates before they escape into the outside air in order to comply with the required air limit values. The grinding process is technically closed, with the powder coatings being crushed in mills with the help of fans or rotary piston blowers and separated via cyclones and final filters.

Since 2023, the noise emissions have been assessed through continuous measurement of the noise level. For the adjacent mixed area, the standard immission value is 60 dB (A) during the day and 45 dB (A) at night. There have been sporadic noise complaints in the past. Further noise reduction measures are currently in planning phase.



5.3 3 Direct environmental aspects

5.3.3 Wastewater

In the cleaning processes, water is operated in a cycled process, collected and the contaminated water is cleaned through treatment (flocculation) and filtration so that it can be used again in the process cycle.

There is currently no indirect discharge of process wastewater. We work continually on concepts to optimise the cycled utilisation of the resulting cleaning media. The aim is to reduce the number of components in the cleaning cycle, which cannot be used any further. These have been disposed of externally as waste since spring 2023.

Below, we would like to give you an insight into the cycled utilisation of our cleaning processes:

Container cleaning for liquid coatings

Rainwater (heated to 60 °C) is used as the final rinse of

the cleaned production containers, which can be used in the cycle for approx. 2 weeks. This collected rinse water is then used to pre-clean machines and systems in the liquid coating production.

The production containers are pre-cleaned using a VOC-free cleaning agent that is processed in our own distillation system and returned to the process. The coating sludge from this is disposed of.

Facility cleaning

During the production of liquid coatings, the rinsing water from container cleaning is used to pre-clean machines and systems. In parallel or downstream, rainwater, freshwater or demineralised water is used, particularly for the final rinse. All wastewater resulting from the production processes is properly disposed of as liquid waste.

Cleaning cycle for powder coatings

In powder coating production, the cleaning of machines and systems with rainwater has long proven effective. The contaminated water is led via wastewater pipes into our own water treatment plant (chemical precipitation/floccu-

lation) and made available again for production via a final filtration process. The resulting solids are disposed of. The high evaporation losses during the cleaning processes can be easily compensated for by specifically adding rainwater.

Extinguishing water for the plant fire brigade

In total, the company currently has 6 large-volume cistern tanks with a total water volume of approximately 2,400 m³. In the event of a fire, each individual cistern serves as an extinguishing water supply for the plant fire brigade, thereby offering greater operational safety. The 200 m³ extinguishing water retention facility can be used to retain material in the event of an accident.

5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.4 Waste

All waste that is generated is collected at designated storage locations according to currently classified waste code numbers and taken to officially approved waste disposal companies for disposal.

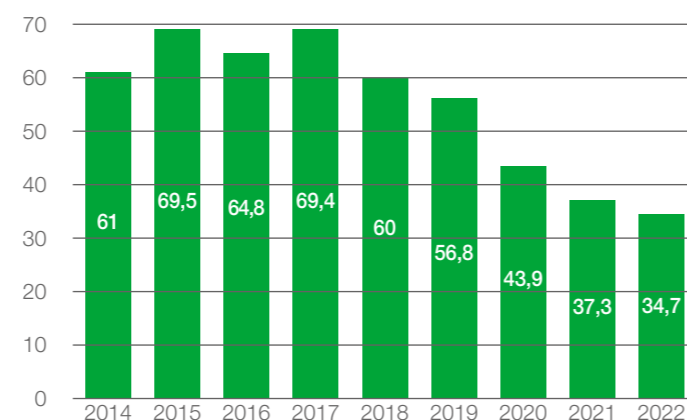
Waste separation is carried out in the individual areas and departments by the responsible employees. As described, higher amounts of waste result from the following processes or procedures.

1. Distillation of cleaning agents (liquid coatings)
2. Solids from flocculation system for powder coatings
3. Production losses in powder coating production
4. Paint and coating waste (liquid coatings)
5. Paper and plastic waste

Of the total amount of waste of 1,625 t in 2022, 1,405 t (86.5 %) was non-hazardous waste and 219 t (13.5 %) was hazardous waste.

Resource efficiency of powder coatings

As can be seen in the 2020 environmental programme, we have been able to significantly reduce losses/waste in the area of production of powder coatings over the last three years.

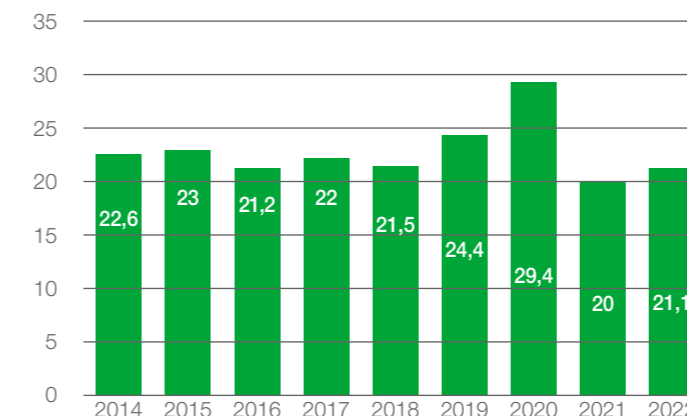


The graph shows the trend since 2014. Compared to 2017, losses were reduced to 34.66 kg/ton (= -50 %), which was achieved through the following measures:

1. Improved drying of the solids volumes from the flocculation system with the help of the heated exhaust air from the grinding systems.
2. Improvement of the grinding processes. Reduction of the proportion of fine grains in the grinding and the proportion of oversize particles in the protective screening.
3. Increasing the number of products with a recycling rate through direct re-incorporation of losses in the production process.
4. Improving the first hit rate and process capability. This means less material consumption and fewer losses.

Resource efficiency of liquid coatings

Liquid coatings waste (kg/t)



In the area of liquid coating production, a positive trend was achieved with a reduction in waste generation.

The following measures led to these improvements:

1. Conversion or improvement of the cleaning processes in the area of the grinding of liquid coatings (bead mills) while simultaneously reducing the amount of cleaning agents
2. Increasing quality while simultaneously reducing external complaints. This means significantly fewer returns that are usually disposed of in waste.
3. Improving the first hit rate and process capability. This means less material consumption and fewer losses.



5. Environmental aspects

5.3 3 Direct environmental aspects

5.3.5 Emergency planning



"We identify and minimise the risks associated with our processes and thereby create a healthy and safe environment for our employees, business partners and neighbours."

"[...] We conserve resources, minimise waste and emissions and reduce the use of hazardous materials and those that endanger the environment. For us, preventing incidents and limiting possible impacts is a corporate goal with increased prioritisation."



A safe production and working environment for our employees and neighbours is a particularly important concern for us. At the Döggingen site, we work with a wide variety of different hazardous substances. A large amount of it is flammable or hazardous to water. Our development department is constantly working on substituting substances with certain hazardous properties in order to continuously improve the safety of our products and production processes.

In order to live up to our responsibility as an operating company of an operating area in accordance with the ordinance on disruptions of operations, it is important to us to optimise the safety of our systems. For this purpose, we carry out risk assessments at regular intervals, on the basis of which the protection concepts of the systems are revised. We are currently implementing new explosion protection and water protection concepts for the two production areas of liquid and powder coatings as well as logistics. We have our systems that require monitoring regularly inspected by external approved monitoring bodies to ensure that they are in proper condition. Here, too, our goal is to continually develop the testing concepts in order to guarantee the safety and availability of our production facilities.

For us, reducing near misses is the basis for preventing

accidents that result in injuries. The focus of our prevention work is therefore on avoiding dangerous situations in order to prevent accidents. We are particularly proud of our numerous first aiders who have made an important contribution to providing first aid in medical emergencies in the past.

Even after all safety measures have been implemented, disruptions can never be completely ruled out. Thus, our plant fire brigade is tasked with limiting the effects of a potential disruption to the lowest level possible. Our company fire brigade members work hand in hand with emergency services from the surrounding BOS units as part of the fire protection, technical assistance and first aid. In the scope of disruption prevention, cooperation with these units is to be intensified in the future.

5. Environmental aspects

5.4 Indirect environmental aspects

5.4.2 Environmentally friendly products

In order to protect the environment and users, we attach great importance to substituting raw materials that require labelling. The share of environmentally friendly products, especially powder coatings as well as water-soluble or solvent-free coating systems, has taken a welcome turn upwards in recent years and is now at 83 % of the amount of coatings sold. These products continue to contribute to reducing emissions and are therefore primarily recommended to our customers. The following new coating systems lead to sustainable application solutions:



Powder coatings:

Lowering the baking temperature (so-called 'LT' quality) enables our customers to reduce oven temperatures without increasing throughput times.

Electrodeposition coatings:

By eliminating the baking process after EC coating, energy consumption is reduced. This means that LT-EC plus LT powder requires just one baking process, which also increases cost-effectiveness.

EcoOne systems mean a VOC-free coating system by using raw materials that do not require labelling and are free of solvents.



Industrial coatings:

Our FREOCURE coating systems are based on alternative crosslinking technologies (e.g. avoiding diisocyanates as raw materials that require labelling). This increases the process capability for customer applications because the processing time is decoupled from drying and very rapid curing at room temperature is possible.

5.4 Indirect environmental aspects

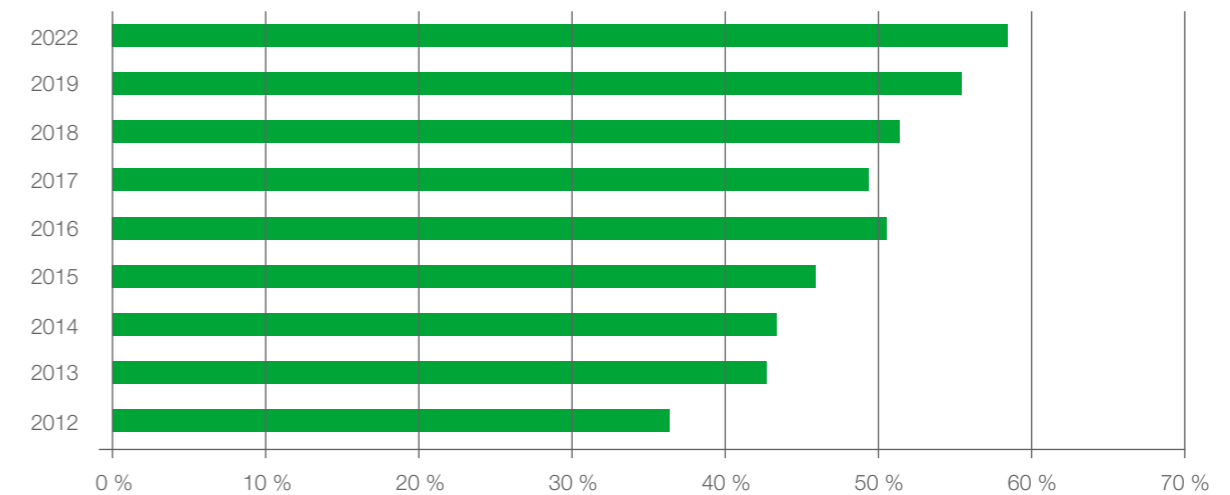
5.4.3 Environmental performance of suppliers

The requirements for a strategic supplier are defined in the purchasing strategy. One aspect of this is that strategic suppliers must demonstrate an environmental management system analogous to ISO 14001.

This criterion is generally included in the supplier evaluation for all suppliers.

The following overview shows the proportion of suppliers (raw materials and packaging areas) with environmental certification ISO 14001 or EMAS III.

Proportion of suppliers with environmental certification



5. Environmental aspects

5.4 Indirect environmental aspects

5.4.4 Mobility of employees



Electric charging stations for cars

For electromobility, we will provide 8 charging stations with a connected load of 11 kW in our two parking lots P10 and P11 from September 2023. In future, **FreiLacke** employees and visitors will have the opportunity to charge their electric vehicles on site.

Döggingen railway station

At the end of 2019, the newly electrified rail connection between Donaueschingen and Freiburg (the so-called 'Höllental train') incl. a direct bus connection assumed operation. This new infrastructure of a railway station close to the company is an ideal and unique prerequisite for being able to travel to work and back for our employees in a CO₂-saving and sustainable way, which will hopefully continue to be increasingly used and appreciated in the future.



5.5 Overview of absolute consumption data/core indicators

Key economic indicators

Employee indicators (as at: 31/12/2022)			
	Male employees	Female employees	Total
Döggingen location	469	136	605

Length of service (as at: 31/12/2022)			
	Male employees	Female employees	Total
0 – 10 years	272	72	344
11 – 20 years	81	27	108
21 – 30 years	62	26	88
31 – 40 years	40	9	49
> 41 years	14	2	16

Space used (m ²)			
	Built-up area	Traffic area	Green spaces
Total** company premises: 118000m ²	76100	35,390 (included in built-up area)	41900

**=Recalculation by architecture office Schmelzle+Partner (2/5/2019)

Vehicle fleet			
	2020	2021	2022
Total passenger cars	69	69	68
Number of hybrids	1	2	2
Lorries	4	4	4
Forklifts (diesel)	4	4	3
Forklifts (electric)	13	13	14
Industrial trucks (electric)	37	45	52
Work platforms (electric)	2	2	3

5. Environmental aspects

5.5 Overview of absolute consumption data/core indicators

Key economic indicators

Core indicators

Sold products (t)			
	2020	2021	2022
Sold products (total) (t)	24389	29337	27784
Powder coatings (t)	16510	20208	19114
Liquid coating materials (t)	7878	9129	8670

Water (m ³) ¹			
	2020	2021	2022
Wastewater (m ³)	5198	5255	6933
Water for recipes (m ³)	1013	976	860
Total city water consumption (m ³)	6211	6231	7793

Water ratio (m ³ /t)			
	2020	2021	2022
Total water consumption (m ³)/products sold (t)	0.255	0.212	0.280

Compressed air generation/consumption (MWh)			
	2020	2021	2022
Amount (1,000 m ³)	6517	7949	7874
Energy demand electricity (MWh)	672	810	789

Material efficiency (input raw material) (t)			
	2020	2021	2022
Synthetic resins (t)	14310	19415	16792
Fillers/pigments (t)	6442	7934	7267
Solvents (t)	1720	1944	1946
Additives (t)	983	1335	1128
Supplied raw materials (t)	93	119	127
Raw material, total (t)	23548	30747	27260

Energy consumption (MWh)			
	2020	2021	2022
Electricity (MWh)	10771	12359	12114
Gas (MWh)	2065	2445	1939
Total energy consumption (MWh)	12836	14804	14053
Total energy consumption/sold products (MWh/t)	0.526	0.505	0.506
Total generation of renewable energy ² (kWh)	281000	251000	292000

Total waste (kg)			
	2020	2021	2022
Total waste (kg)	1619260	1771236	1625481
Non-hazardous waste (kg)	1439963	1579268	1405913
Hazardous waste (kg)	179297	191968	219568

¹ Wastewater from production processes is properly disposed of as liquid waste

² Electricity from our own photovoltaic systems

5. Environmental aspects

5.5 Overview of absolute consumption data/core indicators

Key economic indicators

Waste – Hazardous waste (kg)

Designation	2020	2021	2022
Paint and coating waste with organic solvents	126049	139796	166099
Paint and coating removers with organic sol-	30546	32706	31819
Solvents and solvent mixtures	13456	11991	12845
Other hazardous waste	9246	7475	8805
Total hazardous waste (kg)	179297	191968	219568

Waste – Non-hazardous waste (kg)

Designation	2020	2021	2022
Coating powder, waste cake	615760	677590	573750
Paper and cardboard packaging	205497	244470	192310
Mixed metals	147140	147480	151270
Mixed municipal waste/ (residual waste without recyclable materials)	133050	163190	160620
Other non-hazardous waste	338516	346538	327963
Total non-hazardous waste (kg)	1439963	1579268	1405913
Sold products (t)	24389	29337	27784
Hazardous waste/ products sold (kg/t)	7.35	6.54	7.90
Non-hazardous waste/ products sold (kg/t)	59.04	53.83	50.60

Emissions greenhouse gases (t)			
	2020	2021	2022
CO ₂ internal (heating) (t)	413	488	388
CO ₂ external (electricity) (t)	6064	6958	0
Total emissions (t)	6477	7446	388

Emissions ratio greenhouse gases (kg/t)			
	2020	2021	2022
CO ₂ internal (heating)/sold products	16.9	16.6	14.0
CO ₂ external (electricity)/sold products	248.6	237.2	0.0
CO₂ total/sold products	265.6	253.8	14.0

Core indicators

Other emissions (NOx, VOC,...) (t)			
	2020	2021	2022
Sulphur dioxide SO ₂ (t)	0.084	0.099	0.079
Nitrogen oxides NO _x (t)	0.475	0.562	0.447
Particulate matter PM (fine dust) (t) ⁴ from production processes	4.294	5.255	4.971
Organic solvents (VOC) (t)	14.48	17.32	44.00 ⁵
Total other emissions (t)	19.33	23.24	49.50

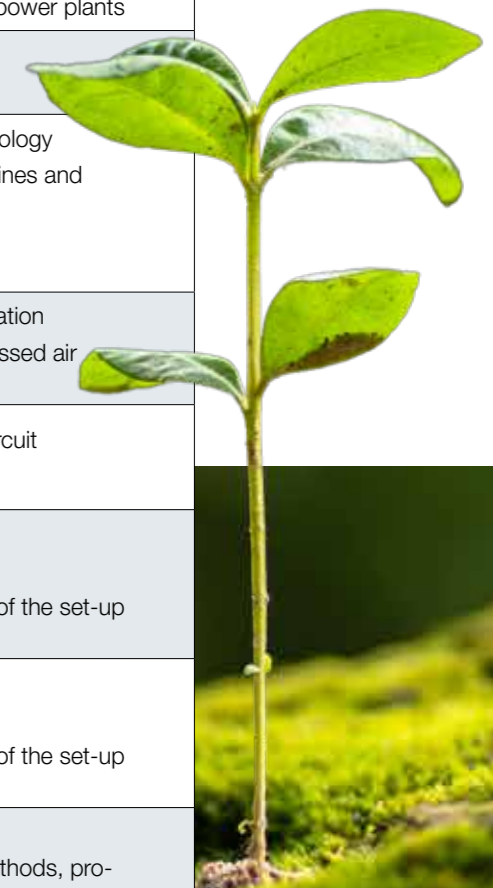
Emission ratio other emissions (NOx, VOC,...) (kg/t)			
	2020	2021	2022
Organic solvents (VOC)/sold products (kg/t)	0.59	0.59	1.58
Total other emissions/sold products	0.793	0.792	1.781

⁴ Extrapolation of the results of emission measurements based on production quantities
⁵ Revised projection based on newly carried out measurements of captured exhaust gases

6. 2023 environmental programme (goals),

No.:	Targets	Unit	2020	2021	Basis (2022)	Goal (2025)	Responsible	Measures
1	Sustainability towards a CO ₂ -neutral company by 2026				Concept study on a CO ₂ programme leading to a CO ₂ -neutral company	Sustainability report in 2025 (for 2024)	Management	<ul style="list-style-type: none"> Preparation of sustainability report in 2025 (for 2024)
1-1	Scope 1*	t CO ₂		952.8	916.0	724	Management	<ul style="list-style-type: none"> * Basis of VEA CO₂ calculations Company goal: Reduction of Scope 1 value from 2021 by 24 % by 2025 and by 30 % by 2026 Purchase of "indirect CO₂-neutral" gas for stationary combustion in heating
1-2	Scope 2*	t CO ₂		3686.2	0.0	0	Management	<ul style="list-style-type: none"> Goal: Maintaining purchase of electricity produced from renewable sources Purchase of renewable energy certified electricity from hydropower plants
1-3	Scope 3					"Development of road map"	Management	<ul style="list-style-type: none"> Development of road map in 2023 Implementation of roadmap by 2026
2	Power consumption	kWh/t	431.0	398.4	411.6	401.3	Engineering/ Operations management	<ul style="list-style-type: none"> Targeted energy monitoring with building management technology Further increases in efficiency through better control of machines and systems Weekly recording and checking of meter readings. In the event of deviations, measures can be taken.
3	Compressed air specific consumption	m ³ /t	267.2	256.5	267.5	260.9	Engineering/ Operations management	<ul style="list-style-type: none"> Greater use of electric drives instead of compressed air operation Permanent monitoring and elimination of leaks in the compressed air network
4	Heating energy	kWh/t	135.8	113.4	105.2	94.6	Engineering/ Operations management	<ul style="list-style-type: none"> Improved control of temperatures and times in the heating circuit Retrofitting of high-speed doors on external doors
5	Waste Liquid coating production	kg/t	29.4	20.0	21.1	20.0	Production management Liquid coating	<ul style="list-style-type: none"> Increasing the first hit rate and process capability Reducing production losses Improving the grinding process and increasing the efficiency of the set-up and cleaning processes
6	Waste Powder coating production	kg/t	44.0	37.3	39.5**	37.0	Production management Powder coatings	<ul style="list-style-type: none"> Increasing the first hit rate and process capability Reducing production losses Improving the grinding process and increasing the efficiency of the set-up and cleaning processes
7	"Reduction Total VOC emissions from liquid coating production"	%			2.35	<1.0	Management	<ul style="list-style-type: none"> Basis = solvent balance 2022 as a basis Reduction of diffuse solvent emissions through optimised methods, processes and more environmentally friendly media. The reduction target should be achieved by 2024.

** Note on point 6 Waste powder coating production:
The base value was adjusted because the 2022 value is not comparable for internal reasons



7. Additional planned measures

Activities to increase environmental performance

To achieve our environmental goals according to the 2023 environmental programme, the following activities are

7.1 Energy: Electricity, heating, cooling

Energy efficiency is increasingly becoming a success factor for competitiveness.

The cleanest and cheapest energy is the one that is not used at all.

In this respect, by increasing energy efficiency, not only can electricity consumption be reduced in a company, but CO₂ emissions can also be meaningfully reduced, which also enables significant cost savings.

By setting up structured energy monitoring with our building management system (BMS), in future it will be necessary to combine and evaluate the data collected from different sources. This allows savings potential to be identified, abnormalities to be immediately recognised and operating costs to be reduced.

The energy consumption of fuels can be reduced through holistic process and system optimisation, improved waste heat utilisation and reduction of heat losses as well as energy-efficient optimisation of the infrastructure. In recent years, some heat meters have been installed to record consumption data and connected to the building management in order to further reduce our heating and cooling output.

In electricity applications, the savings potential can be achieved in addition to the consistent use of the newly installed building management technology through the use of highly efficient motors, modern technologies for IT peripherals and the energetic optimisation of compressed air, pumps and ventilation systems.

In 2023, we will install another PV system on building 5.6 with a system size of 165 kVA in 2023. The expansion of

PV systems must be steadily continued in order to permanently increase our own energy production. We also need to find solutions that we can use to store excess electricity on the weekend before it is fed into the power grid.

When generating compressed air, the primary aim is to detect any leaks that arise in the compressed air network and repaired for leaks as long as possible.



7.2 Energy supply of the future

We recognised the challenges in the energy market at an early stage and, with the foresight, concluded multi-year contracts with our electricity and gas suppliers. To continue to ensure a stable and economically viable energy supply after this period has expired, an energy concept for the future must be developed. The aim here is to replace the existing four gas-operated heating burners with a different technology and to enable options for storing energy on a larger scale. As part of a feasibility study, it is also important to consider which technology can be used to massively increase the level of energy self-sufficiency.

7.3 Water

Instead of freshwater, as described, rainwater is used primarily for heating and cleaning processes. Attention is paid to a consistent multiple use of water in order to use the water resource particularly sparingly.

In this way, both water consumption and - if the circulating water needs to be heated - energy consumption can be reduced.



7. Additional planned measures

Activities to increase environmental performance

7.4 Resource efficiency and wastage



There are two important goals in the entire value chain: the constant improvement of existing processes as well as resource efficiency with the consistent avoidance of wastage, which also has a positive effect on sustainability.

In addition to energy efficiency, the use of raw materials and supplies plays a particularly important role in the company, especially since the material cost share of the total costs is almost 60 % and therefore offers great potential for optimisation. Better process capability with a high quality rate (so-called 'first hit rate') without rework or scrap also ensures greater added value through lower material losses.



7.5 Production of liquid coatings; modular industrial coatings technology (MIT)

One very important goal for increasing the entire value chain of liquid coatings is to convert the existing production process to a new process using modularly manufactured semi-finished products. These are each manufactured with a high level of consistent quality and stored temporarily in order to then be ideally completed in the final sales container for the ordered product batches "just in time" through simple dosing and a simple mixing process.

This process results in an enormous increase in economic efficiency, among other things, also possible through the use of new mixing and dispersing technologies.

The focus is on the following important optimisation poten-

tial:

- Fast and process-reliable production of semi-finished and finished products, even in small batch sizes
- Reduction of testing and correction times
- Reduction of material losses, cleaning and energy costs
- Reduction of fugitive emissions
- Through "just in time production", shortening of the delivery times and reduction of the inventories of finished products.



8. Awards



2012
EMAS "Water Management" Award
National Winner Award
2012 EMAS Award for environmental performance regarding water management

Environment
 Minister Peter Altmaier
 with the nominees of the
 2012 EMAS Awards



2016
Responsible Care
Competition of VCI
(28/07/2016)

Topic "Cleaning more with less – VOC-compliant container cleaning"



100
BETRIEBE
FÜR RESSOURCEN-
EFFIZIENZ
 BADEN-WÜRTTEMBERG

Emil Frei GmbH & Co. KG
 Bräunlingen

2015
100 Companies for Resource Efficiency Baden-Württemberg

Topic "Cleaning more with less – VOC-compliant Container Cleaning"



2020
Responsible Care
Competition 2020 Award of VCI (13/08/2020)

Winner in the German state of Baden-Württemberg
 Topic "Sustainable use of water"



9. Sustainability and efficient value creation

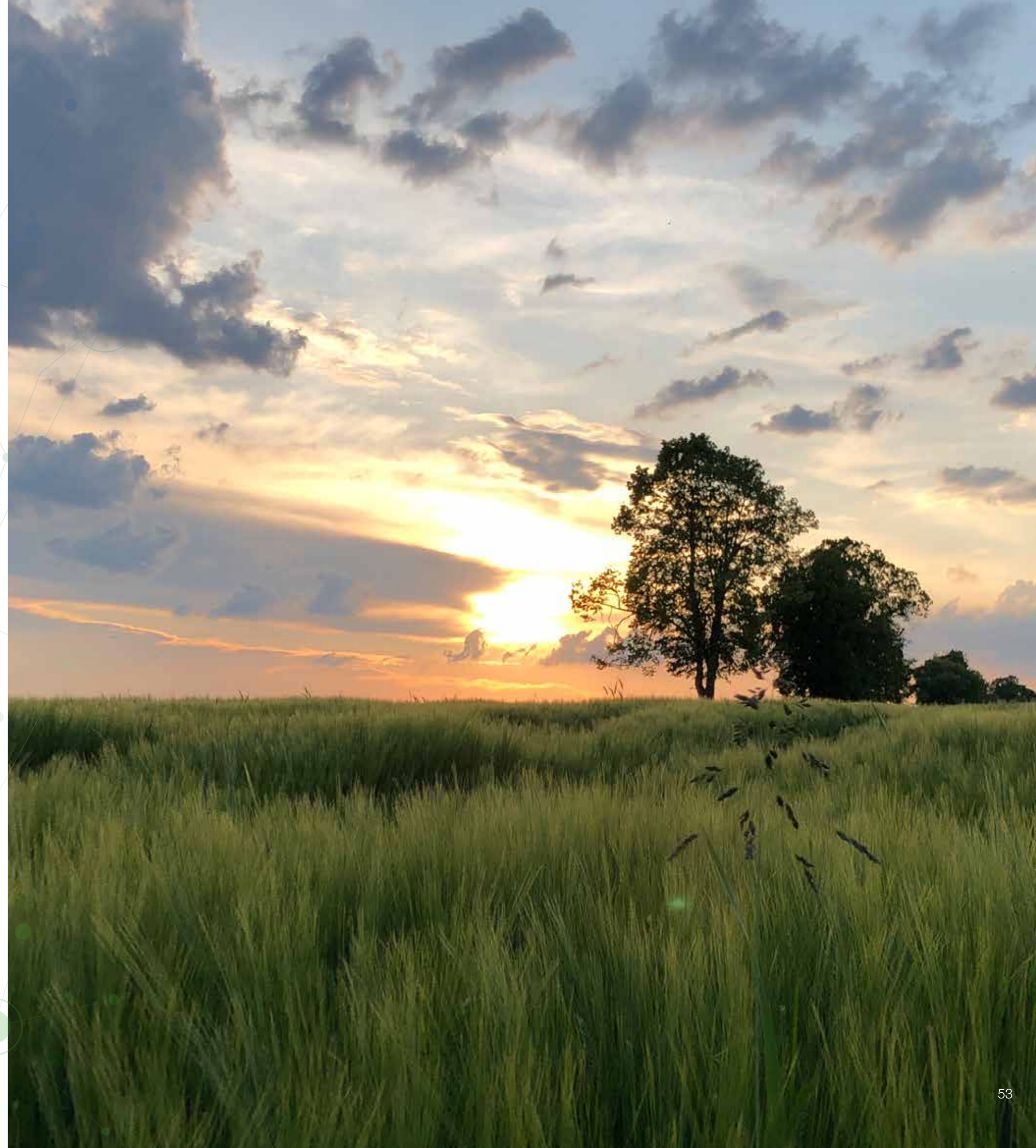
The term sustainability or corporate social responsibility has been shaped by strong media presence and used in a variety of ways in recent years. As is well known, in resource use, the term comes from forestry and follows the principle of only using resources to the extent that they grow back.

As a commercial company in the chemical industry, we identify with the sustainability definition of the term "honourable businessman" anchored in the IHK (Chamber of Industry and Commerce) law.

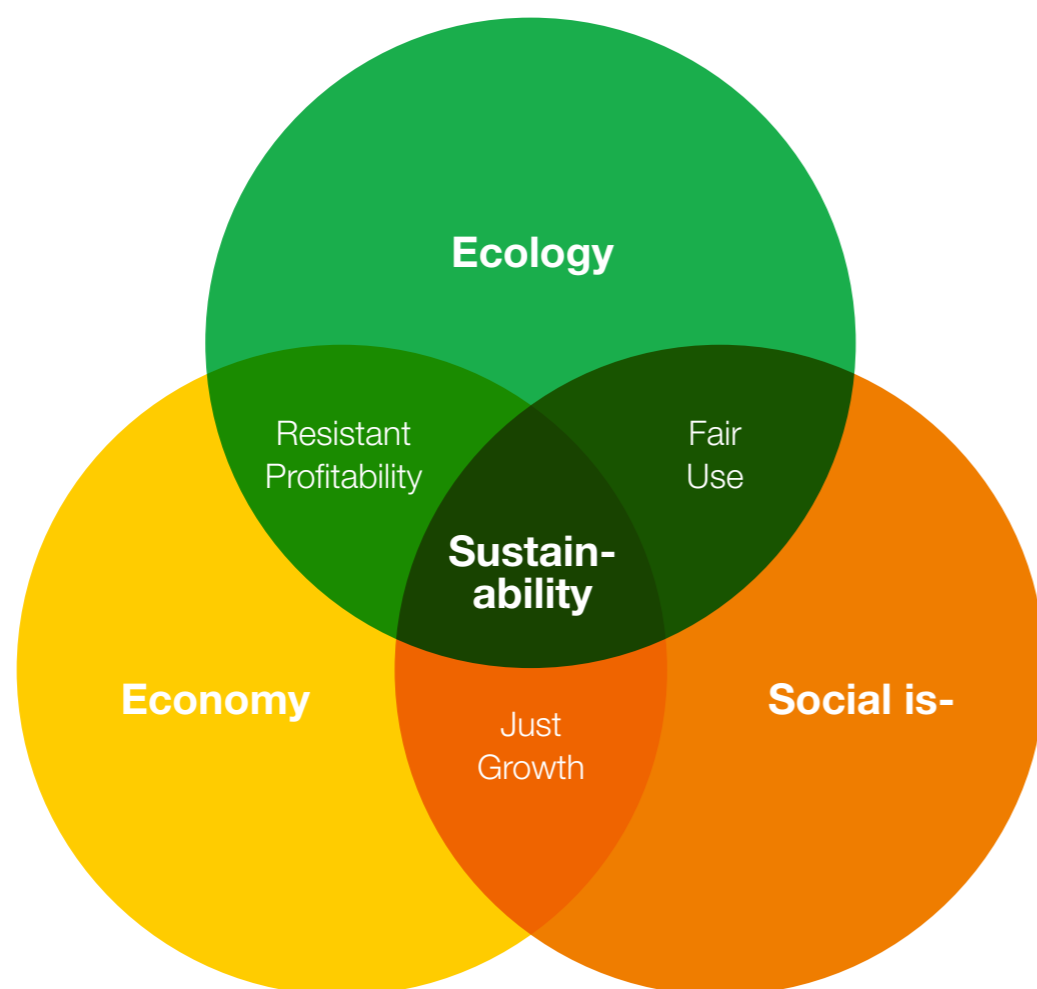
"The term honourable businessman (merchant), which has existed since the 12th century, describes the historically evolved model for responsible participants in economic life. It stands for a strong sense of responsibility for one's own company, for society and the environment. An honourable businessman bases his behaviour on virtues that aim for long-term economic success without conflicting with the interests of society. He operates sustainably."

(Source: Wikipedia Germany: Honourable Merchant 2023-02-21)

Basically, this short definition excellently summarises what has been passed and initiated in recent years in terms of laws and regulations at national, EU and UN level on sustainability and climate protection goals. From the definition of the Sustainable Development Goals (SDG) of the United Nations to the Green Deal of the European Union. Sustainable action is the basis for securing the future of our environment and our economic systems. Last but not least, this is also anchored in our corporate guidelines for the long-term positioning of **FreiLacke** in 2026.



9. Sustainability and efficient value creation



FreiLacke can look back on a long tradition. We see the EU's resolutions on the CSRD directive as encouraging us to continue to pursue this path consistently and sustainably in the best possible way. We see the reporting requirement in so-called 'non-financial reporting' from 2025 as an opportunity to continue working on our services in a transparent comparison with market competitors and within the industry.

The measures and successes of active environmental management, which are set out in this declaration and result in an excellent **CO₂e** balance (GHG Scopes 1-2) of **33 g CO₂e/kg** of coating produced, will be combined even more closely with our activities in quality and occupational safety management in the coming years. Supplemented by the company's social activities, this will result in a sustainability report in 2026.

In our overarching environmental and climate protection

goals, we aim to reduce direct **CO₂e** emissions (GHG Scopes 1-2) by 1/3 from 2022 levels by 2026. For indirect emissions (GHG Scope 3), a roadmap for recording and evaluating the current data status will be developed in 2023. The global sourcing network with more than 1,000 raw materials will be examined with the involvement of suppliers.

For **FreiLacke**, the pursuit of environmental and social goals always goes hand in hand with the goal of enabling economic success through increased efficiency. According to the triple bottom line model, these 3 factors are fundamentally linked to one another and depend on each other to achieve sustainable progress.

In the **FreiLacke E³ factory production vision** (see environmental declaration 2019), these objectives are translated into concrete fields of action. Measures and projects for the implementation of digitalisation potential, reduction of process losses and the development of the organisations that operate the value creation system are documented there and are implemented using a roadmap plan.



10. Dialogue and date for the next environmental statement



The next **FreiLacke** environmental statement will be more comprehensive and is expected to be released in 2026. Between them, the company will prepare an updated environmental statement annually for internal purposes.

The environmental statement is meant to inform the public and employees who actively participate in the improvement of the company's environmental performance. This environmental statement was prepared with the assistance of dedicated employees from different departments. We are always willing to talk about the steps we take to protect the environment. Please contact info@freilacke.de.

Bräunlingen-Döggingen, 19 July 2023

Dr. Rainer Frei
Managing director,
Commercial director

Dipl.-Ing. Hans-Peter Frei
Managing director,
Technical director,
Environmental management
representative

Rosemarie Vasseur
Works council chairman



11. Declaration of the environmental expert

The signatory, Dipl. Biol. Lennart Schleicher, EMAS environmental expert (registration number: DE-V-0404, accredited for the area C20.3 (NACE Code), affirms to have examined that the site and/or the entire organisation –

Emil Frei GmbH & Co. KG
Am Bahnhof 6
78199 Bräunlingen/Döggingen, Germany

(registration number: DE-169-00006) – has met all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 and the amending Commission Regulation (EC) 2017/1505 of 28 August 2017 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), as the organisation has stated in its updated environmental statement.

The signing of this declaration confirms that

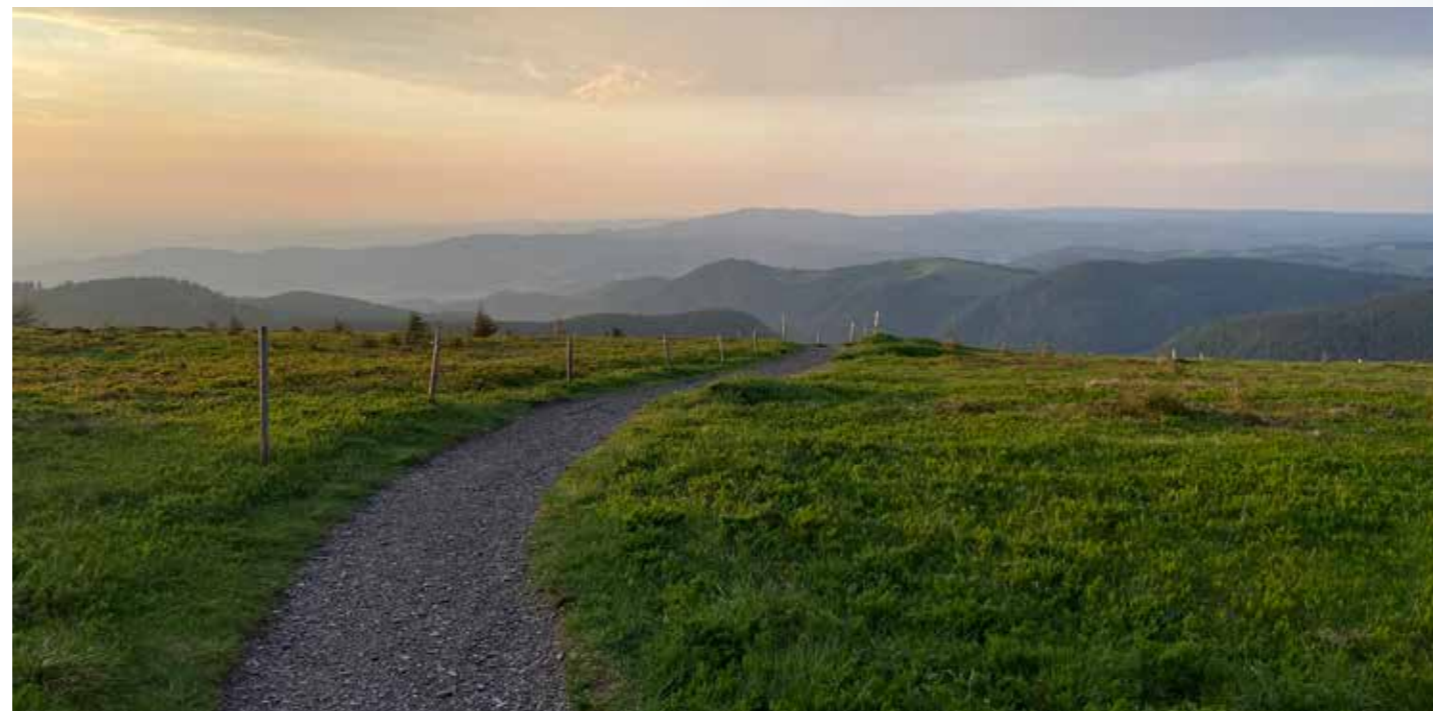
- the assessment and validation were carried out in full compliance with the requirements of Regulation (EC) No. 1221/2009, updated by Regulation (EU) 2017/1505 and Regulation (EU) 2018/2026,
- the result of the assessment and validation confirms that there is no evidence of non-compliance with the applicable environmental regulations,
- the data and information in the organisation's environmental statement provide a reliable, credible and truthful picture of all of the organisation's activities within the area specified in the environmental statement.

This declaration cannot be equated with an EMAS registration. EMAS registration can only be carried out by a competent body in accordance with Regulation (EC No. 1221/2009. This declaration may not be used as a stand-alone basis for informing the public.

Höchstadt, July 19, 2023



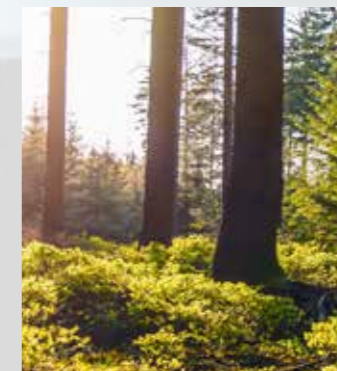
Dipl. Biol. Lennart Schleicher
Environmental expert



“ WHAT WE DO TODAY
DECIDES WHAT
THE WORLD
WILL LOOK LIKE
TOMORROW.”



This environmental statement was prepared with the assistance of dedicated employees from different departments. The responsibility for the content and design of the declaration lies with the management and the EM representative.





- Räder
Wheels
- Fahrzeugbau
Vehicle construction
- Maschinen- und Apparatebau
Mechanical engineering
- Lohnbeschichter
Job coaters
- Funktionsmöbel und Lagertechnik
Functional furniture and storage technology
- Bau und Sanitär
Construction and sanitary



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