



# Sustainability Report 2023

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## **About this report**

This report is intended to provide information on the company's sustainability performance for stakeholders such as customers, employees, business partners and local residents, and to promote the relevant dialogue.

This first sustainability report covers the main ecological and social developments at Alberdingk Boley GmbH. It focusses on the Krefeld, Kerpen and Leuna sites. The format is based on ISO 26000 and the content and structure take into account the three dimensions of sustainability: economic, environmental and social.

## **Reporting period and scope of application**

The Sustainability Report 2023 refers to the financial year 2023 or the period from 1 January 2023 to 31 December 2023.

Unless otherwise stated, the facts, figures and information reported here apply to the sites of Alberdingk Boley GmbH and Alberdingk Boley Leuna GmbH in Germany.

There were no significant changes in the size and structure of the company or its ownership structure during the reporting period.

## **Collection and comparability of data and information**

For key figures for which no trend can yet be specified, this will be the aim in future. Due to new calculation bases, higher data quality and updated information, figures from previous periods may be corrected in individual cases. Deviations may occur when totalling data due to rounding.

## **Foreword by the Management Board**

Dear Madam or Sir,

To understand where we want to go as a company, it is good to know where we come from.

Alberdingk Boley has been a partner for customers, suppliers and other stakeholders for more than 250 years. Sustainability has always been important not only today but throughout our history.

The company started out trading in vegetable oils. In the 1970s, aqueous binders were added to the portfolio.

At that time, environmental protection was more of a subordinate issue in the public eye. In the construction industry, for example, solvent-based coatings were used almost exclusively. Our customers were divided, for some we were pioneers, for others we were dreamers.

Our success proved us right! To this day, we have continued to expand the area of environmentally friendly binders and have continuously generated new product segments. As a B2B company, we supply the processing industry. In fact, you probably come into contact with our products every day without realising it.

Our binders refine, bond, embellish and protect surfaces. They can be found everywhere in everyday life, on walls, furniture, floors, in cars and offices, on facades, in plasters and in corrosion protection, in short: wherever surfaces are coated, indoors and outdoors. We sell our products worldwide and are market leaders in various segments.

We would like to document how we bring sustainability to life.

For us, sustainability means corporate responsibility for the environment, for our customers and other stakeholders, for our employees and beyond the boundaries of the company.

If we look back at our company history, we can see that once a stone is thrown into the water, it spreads far and wide. If we can persuade even just one reader to set their own sustainability goals higher, that will be a huge gain for us. With this report, we want to create trust and transparency and inspire people to discover potential for further development.

## **1. Company Overview**

Alberdingk Boley is a privately owned medium-sized company. The heirs of the original, eponymous founders still hold the shares in our company today. Alberdingk Boley has been a partner for customers and other market players for more than a quarter of a millennium.

We have subsidiaries in China, Europe and the USA to keep us close to the market. We also have representatives in around 60 countries.

This is what characterises Alberdingk Boley:

- Highest quality products and service
- Technology and innovation
- Demand for maximum safety in our processes and plant technology
- A wide range of technologies
- A tradition of customer intimacy
- A high regard for our employees
- Certified and practised occupational safety
- Flexibility
- Sustainable thinking and action

Challenges inspire us! We deliver the best solution for our customers.

### **Product portfolio**

Paints and varnishes, building protection, printing inks, coatings of all kinds, adhesives, pharmaceuticals and cosmetics, construction chemicals, lubricants, packaging:

With our raw materials, we help to make our customers' products better. We distinguish between two product areas, namely water-based binders and vegetable oils from linseed and castor oil.

## **2. Sustainability in the Company**

Sustainability is managed by our management team. All employees are aware of the requirements, as the topic of sustainability is firmly anchored in our corporate guidelines. A specially created unit coordinates the implementation of the guidelines and forms cross-departmental project groups focussing on various core topics.

We promote the development and distribution of environmentally friendly products and technologies and act in accordance with the precautionary principle. We are working to continuously improve our energy and resource efficiency and promote the use of bio-based raw materials.

## Our top 6 sustainability goals - identification of strategic goals

At Alberdingk Boley, sustainability is linked to the company's DNA and is therefore a central element of the strategy, business activities and corporate culture.



Alberdingk Boley's sustainability strategy is therefore closely linked to the corporate strategy and comprises 6 sustainability goals that cover the economic, environmental and social dimensions.

This is based on an analysis carried out in 2023 to identify the Sustainable Development Goals seen as a priority at Alberdingk Boley, these goals contribute to 6 of the 17 goals of the UN 2030 Agenda for Sustainable Development (UN SDGs).

We are committed to the health and safety of our employees and stakeholders.

We offer our employees continuous medical care and healthcare.

We regularly train our employees to prevent hazardous situations and provide them with comprehensive information about the safety measures for our products.



In recent years, we have driven forward the integration of our ESG pillars by analysing the life cycle of our products in order to reduce their carbon footprint.

In addition, we have improved the performance of our products to increase their shelf life and life span, which also reduces waste.

We also use bio-based raw materials for our products, which have a reduced CO<sub>2</sub> footprint.



With this Corporate Sustainability Report, we have prepared our first sustainability report on social, governance and environmental measures.

We are currently investing in energy efficiency and energy recovery. Our aim is to meet the company's energy needs with clean energy in order to reduce the carbon footprint of the entire Group.

For example, we installed a photovoltaic system at our site in Leuna, which was commissioned in 2024, and we plan to expand this initiative to other sites.

We have improved the electric mobility of our employees by providing charging stations for electric vehicles.



We take the issues of clean water, waste water management and hygiene into account when manufacturing our products.

These efforts are reflected in our sustainable products, as they are manufactured in a way that conserves resources and water.

We optimise the water cycles by not disposing of rinse water in the wastewater, but rather by treating it in a targeted manner.

We are aware of the risks that climate change poses to water availability and are constantly endeavouring to improve our products and develop them in a more sustainable way.



As part of our efforts to combat climate change and reduce our impact on the environment, we are working on reusable solutions for our products.

The carbon footprint has been set in line with the European Green Deal climate targets for 2050.

We have drawn up an energy efficiency concept for the entire Group, the centrepiece of which is the move away from fossil fuels and the conversion of energy consumption.

(picture-source: <https://sdgs.un.org/goals>)

### **We take responsibility**

We are aware of our social responsibility with regard to social and sustainable behaviour. This includes the impact of our economic activities along the entire value chain.

Irrespective of legal requirements, we work to continuously improve safety, health and environmental protection as well as the rational use of resources - to protect employees, neighbours, customers and the environment (responsible action).

### **Quality and efficiency**

By clearly identifying and defining product requirements, we ensure the required product quality is produced and maintained economically.

Our independent quality management system ensures the necessary quality assurance measures are coordinated and implemented.

### **Sustainable future-orientated development**

In line with the guiding principle of 'sustainable development', we want to fulfil the economic, ecological and social needs of today's society without depriving future generations of the opportunity to develop freely through our current actions.

Alberdingk Boley therefore endeavours to find solutions that ensure economic growth, which at the same time is ecologically sustainable and socially acceptable.

Our research and development and technical marketing teams are increasingly focussing their innovations on sustainable thinking and the use of renewable raw materials.

### **Sustainable through bio-based products**

Our R&D and application technology teams are consistently working to improve the sustainability performance of our products - without our customers having to accept any loss of quality or performance.

Bio-based products are part of our heritage:

Vegetable oils such as linseed and castor oil are naturally bio-based and, as renewable plant-based raw materials, have always been used as binders. We have been producing sustainable water-based binders since the 1970s and have been developing polyurethane dispersions based on castor oil since the 1990s.

In 2005, as a result of extensive research, we introduced polyurethane dispersions based on linseed oil. In the same year, we began producing our ALBODUR® range of polyols, which are based on castor oil and contain 100% solids for sophisticated 2K coatings.

We are currently working on acrylate dispersions based on renewable raw materials and are thus continuing on our path towards more bio-based products.



### **Renewable raw materials and the biomass balance (BMB) approach for the production of bio-based polyurethane and acrylate dispersions**

In addition to the development of dispersions based on castor oil and linseed oil, we utilise other renewable raw materials and the biomass balance process (BMB) for the production of bio-based polyurethane and acrylate dispersions. These products are marketed under the name 'ALBERDINGK® Ren'.

The material allocation in the production plants are carried out via a balance sheet - the process works in a similar way to the allocation of green electricity.

The properties and quality of BMB products do not differ from those produced using conventional raw materials. However, they have a better sustainability balance.

Valuable fossil resources are saved and CO<sub>2</sub> pollution is reduced. We are continuously expanding our sustainable product range, because by using our bio-based products, our customers can improve their sustainability balance - while maintaining the same performance of the end product.

### **Compliance with recognised standards**

All our activities comply with applicable laws and regulations as well as our voluntary commitments.

In order to achieve our goals, we maintain an effective, economical and process-orientated integrated management system based on the standards DIN EN ISO 9001, DIN EN ISO 14001, DIN ISO 45001 and DIN EN ISO 50001 as well as a safety management system in accordance with the 12th BImSchV - 'Störfallverordnung' (=Hazardous Incident Ordinance).

The availability of all necessary information and resources ensures the achievement of our goals.

Compliance with external and internal standards, regulations and laws is regularly checked during inspections and audits.

### **Continuous optimisation**

We continuously improve processes and technologies for the efficient use of resources, the environment and energy.

Through appropriate information, training and instructions, we create the necessary awareness among our employees and oblige them to work and act in a safe, quality, environmentally friendly and resource-conserving manner. Every manager is a role model in this respect.

We are in regular dialogue with other companies and pioneers in the industry, e.g. with Uzin Utz SE, in which Alberdingk Boley holds a stake.

We are a member of the German Chemical Industry Association (VCI), the Sustainable Castor Association and numerous other networks and exchange information with interest groups, environmental protection organisations and local residents as required.

### **Ethical code of conduct and respect for internationally recognised human rights**

Our Code of Conduct is the basis for our dealings with one another. We are committed to respecting and upholding all internationally recognised human rights that are relevant to our activities.

## **3. Performance data**

### **3.1 Field of action Economy and products**

#### **Business Unit Chemicals 2023**

2023 was a year characterised by great economic uncertainty in almost all markets.

In terms of foreign policy, Russia's ongoing war of aggression in Ukraine kept us on tenterhooks in Europe. In terms of domestic policy, there is great uncertainty in Germany with regard to ever stricter regulations and bureaucratic hurdles, which has led to some investment decisions being postponed.

In Germany the gas shortage feared for last winter did not materialise however, energy prices are still well above the 'pre-corona' level. One of the consequences of this was in 2023 we also recorded the second-highest inflation rate since reunification.

All of these factors contributed to a reduction in demand in 2023.

Throughout the year, there was repeated price pressure from the market, to remain competitive we had to reduce prices.

#### **Business Unit Oils 2023**

As in the chemicals sector, 2023 was also characterised by great economic uncertainty in the oil sector. Sales revenue recorded a double-digit increase in 2020-2022. Despite

increased sales volumes, the significant rise in revenue is attributable to other drivers, such as higher raw material prices and currency developments.

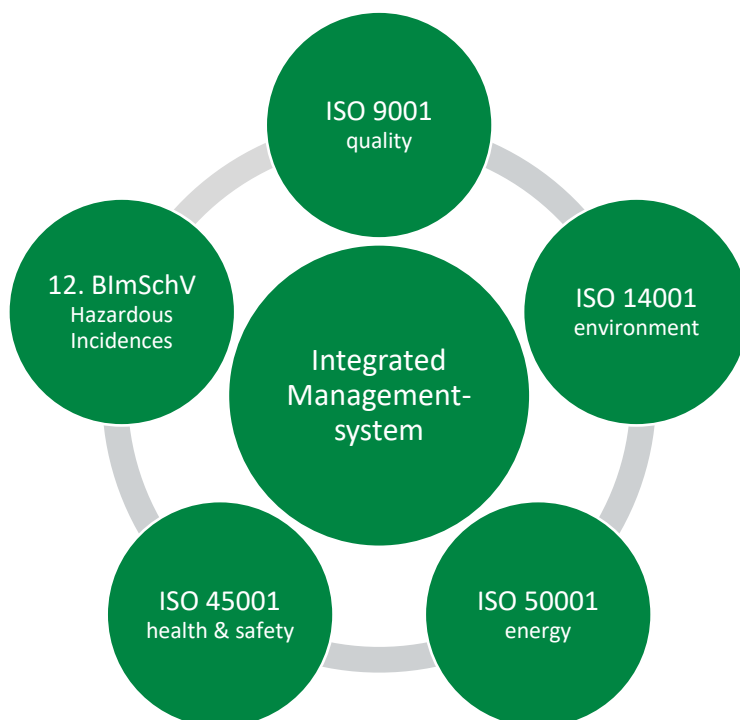
Some of the castor oil is used for the production of our ALBODUR® polyols. ALBODUR® is used in 2K PU floor coatings, among other things, where it competes directly with petrochemical polyols and epoxy resins. Castor oil as a base for ALBODUR® represents a sustainable alternative to conventional polyurethane and epoxy resin floors. Various binders and basic raw materials for environmentally friendly alternatives are also produced on our other vegetable oil, linseed oil. Another major trend in the castor oil sector is our pharmaceutical castor oil, which is used in the manufacture of vital medical equipment.

### Integrated management system

Our integrated management system fulfils the requirements of the international standards ISO 9001 and ISO 14001. We also maintain an occupational health and safety system that is certified in accordance with ISO 45001.

In addition, a safety management system is integrated to fulfil the obligations under the German Störfallverordnung (12th BImSchV).

In order to increase our energy efficiency, we have introduced an energy management system that fulfils the requirements of the international ISO 50001 standard.



The requirements of the regulations are interlinked in our Integrated Management System (IMS) and integrated into the company's workflows and processes.

Quality management covers all quality-relevant processes and ensures consistently high product quality by adhering to the definition of quality objectives, the creation of quality guidelines and the definition of procedures to fulfil these objectives.

**Customer focus:** Alberdingk Boley understands the needs and expectations of its customers and ensures that its products fulfil these requirements. This also includes continuous communication with customers and monitoring customer satisfaction.

**Process management:** All relevant processes in the company are identified, documented and controlled. This includes manufacturing processes as well as supporting processes such as procurement, human resources and finance.

**Resource management:** We ensure that sufficient resources such as personnel, infrastructure, materials and finances are available to achieve the quality objectives.

**Measurement, analysis and improvement:** Mechanisms for measuring and monitoring product quality are in place. Internal audits are carried out, key performance indicators are analysed and customer feedback is monitored. Continuous improvements are made on the basis of this data in order to increase product quality.

**Management participation and leadership:** Managers are actively involved in quality management and promote a culture of quality and continuous improvement.

**Environmental management** aims to ensure the sustainable use of the required resources. It also regulates, among other things, risk management to prevent environmental pollution, the monitoring of environmentally relevant facilities, compliance with the relevant legal provisions and their implementation as well as support for managers in all matters relating to environmental protection.

**Energy management** is based on environmental management and regulates the implementation of measures to increase energy efficiency, the monitoring of energy-relevant systems and the support of managers in all matters relating to energy management.

The **occupational health and safety management** system ensures that everyone takes responsibility for their duties and responsibilities with regard to occupational health and safety and that sources of danger and risks of occupational accidents are recognised and eliminated at an early stage.

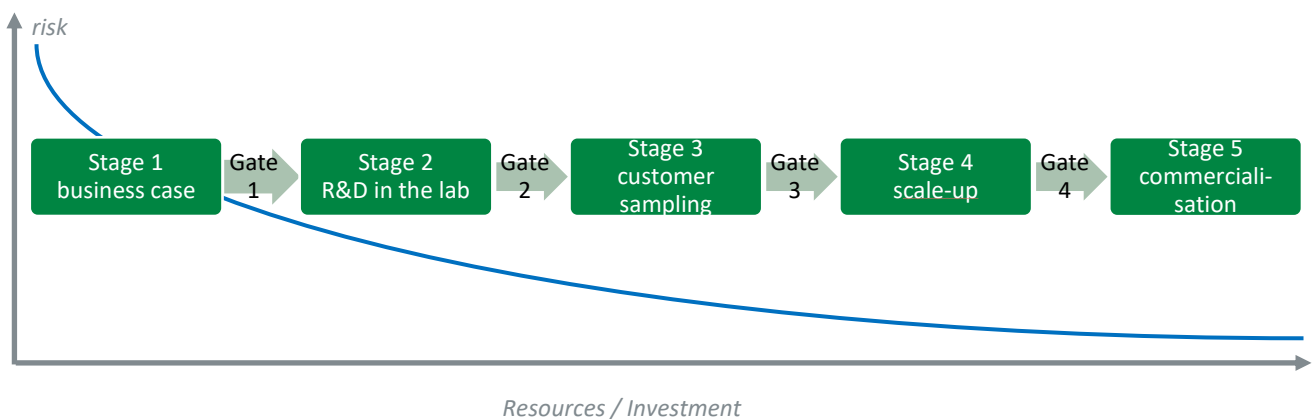
**Safety management** in accordance with the BImSchV regulates the procedures and measures for preventing incidents as well as all safety-relevant processes and procedures for operating areas in which hazardous substances are present in incident-relevant quantities. It is closely linked to the risk management of environmental management and the occupational health and safety system.

### **3.1.1 Product development procedure**

New products are primarily developed in the area of polymer dispersions ('chemicals'). In our Oil division, product developments are currently limited to bio-based polyols, which are also part of the Chemicals division.

The development of new products, the optimisation of existing products and the provision of services are carried out at Alberdingk Boley using the Stage-Gate® process:

Product development begins with an idea and ends with the marketing of a new product. The stages in between are managed like a systematic process. Stage-Gate® organises this process into a series of phases or 'stages' and 'gates' (see schematic sequence):



Stage-Gate® is a pattern for the implementation of specific product development or process optimisation projects. At the same time, Stage-Gate® is also a checklist that ensures that critical activities are carried out in good time and that those responsible incorporate best practices into each individual development project.

Each stage contains a diverse set of activities based on product development best practices. It is important to emphasise that the activities within the stages are carried out by the relevant project team in parallel and not sequentially. This allows a project to be completed quickly and effectively:

All phases are interdisciplinary (cross-departmental) - so members of several different departments in the company are involved at the same time! This ensures the full breadth of Alberdingk Boley's expertise is available at every stage of the project.

Between the 'stages' there are 'gates' at which decisions must be made about the further progress of the projects.

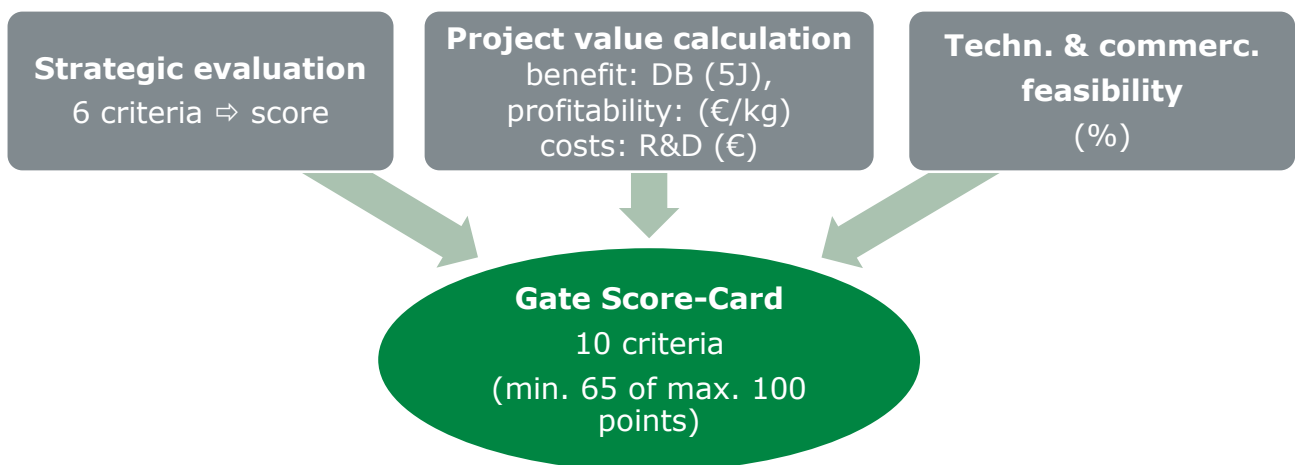
The 'gates' therefore represent the critical decision points based on defined evaluation criteria for the projects.

In the Stage-Gate® process, the decision-makers at these points are not individuals, but a gatekeeper team that makes decisions as part of a regular Stage-Gate® Review Meeting (SGRM). In this way, the favouring of projects by individuals is effectively prevented.

The function of the SGRM is to permanently monitor the quality of the projects:

- Was the previous stage carried out with sufficient quality and the expected results?
- How is the commitment of the customer/market assessed?
- Is the project on schedule?
- Is the project still attractive from an economic and business perspective?

This control takes place through corresponding team discussions at the SGRM. The appropriately prepared project manager must defend the project in the team discussion.



In addition, the allocation of resources per project is decided at the SGRM.

SGRM participants are recruited from the various corporate functions involved in or affected by product development (e.g. Sales, Research & Development, Technical Marketing, Product Management, Production, Regulatory Management team, etc.): Sales, Research & Development, Technical Marketing, Product Management, Production, Regulatory Management team, etc.).

In terms of organisational function, the participants are recruited from the following groups:

- Heads of department or division
- Project manager

### **Benefits and strengths of the Stage-Gate® process:**

Increased probability of success of product development

- 'Clean' project definition (goals and technical requirements)

- Focussing / orientation towards customers and markets
- 'Cross-functional' project teams
- High-quality project decisions

Project portfolio management (control of product development):

- Tool for prioritisation / creation of overview and transparency
- Enables the implementation of AB's strategy

### **3.1.2 Procedure Business development**

Business development can be based on both portfolio products and development products. There is therefore a close correlation with the Stage-Gate® process.

The process can be initiated at the request of a customer (passive) or on the basis of targeted potential analyses and identification of opportunities (active).

The latter takes place through constant monitoring of market activities as well as research based on current market studies or industry directories and the associated telephone or personal acquisition discussions.

Once a potential (customer, product and business volume) has been identified, initial products from the standard range are usually sampled and an official price quotation is prepared as part of this process.

The process is considered complete as soon as final feedback on both technical and commercial factors has been received.

If these aspects are assessed positively, a new customer/product relationship is established and the order fulfilment process is initiated.

The following indicators are regularly consulted to review process performance:

- Sales development
- Customer satisfaction analysis
- Supplier evaluation of our customers

### **3.1.3 Current focus of product development**

Every year, key topics are defined for new product development. These currently include the following topics:

### **Expansion of the ALBERDINGK® portfolio based on renewable raw materials.**

- Alberdingk Boley is constantly working on the development of new dispersions and polyols based on castor and linseed oil for various applications such as leather finishing, textile coatings, architectural coatings, construction, printing and packaging
- Many polyurethane dispersions can be produced immediately based on polyols made from biological sources instead of mineral oil.
- Alberdingk Boley is currently working intensively on expanding its portfolio of acrylic dispersions based on special bio-based monomers.

### **Implementation / certification of the biomass balance concept**

Alberdingk Boley is currently preparing for the implementation / ISCC PLUS certification of the biomass balance concept in order to switch as many mineral oil-based raw materials as possible to sustainable raw materials.

The aim is to reduce climate-damaging emissions during the supply chain and avoid them as far as possible in the long term.

### **Sustainability through biobased products**

The aim of our R&D and application technology teams is to increase the sustainability of our products without our customers having to compromise on quality and performance.

Bio-based products are part of our heritage: as we started out in Krefeld as an oil mill for linseed and castor oil, these two vegetable and therefore naturally bio-based oils are also used as renewable raw materials for our water-based binders: we have been producing water-based binders since the 1970s and developing polyurethane dispersions based on castor oil since the 1990s. In 2005, as a result of extensive research, we introduced polyurethane dispersions based on linseed oil. In the same year, we began producing 100% polyols, our ALBODUR® range. In addition to the renewable base component castor oil, these polyols are suitable for demanding VOC-free 2K coatings due to their 100% solids content.

We are consistently pursuing our path towards more bio-based products.

In addition to the development of dispersions based on castor oil and linseed oil, we also utilise other renewable raw materials for the production of bio-based polyurethane and acrylate dispersions. These products are marketed under the name 'ALBERDINGK® Ren', for example.

For dispersions that are produced using the biomass balance method, the material flows in the production facilities are allocated according to the balance sheet. The process works in a similar way to the process for green electricity. The properties and quality of these products do not differ from those produced using conventional raw materials,



meaning that they can be used particularly easily to save valuable fossil resources and reduce CO<sub>2</sub> pollution.

In 2024, we expect market momentum to remain rather subdued. Economic conditions in Europe remain difficult, which will continue to have a negative impact on demand. In addition, construction activity in Germany is sluggish, which will continue to have a negative impact on the coatings and paints industry in the domestic market.

At a global level, the market environment continues to be characterised by many political uncertainties, which stands in the way of a rapid market recovery.

Nevertheless, we anticipate slight growth, which will be realised as planned through the implementation and commercialisation of new customer projects.

### **3.2 Field of action supply chain**

As a global company that is at the beginning of an exciting journey to fully integrate our due diligence obligations into the supply chain, we are motivated to carefully organise our processes and procedures.

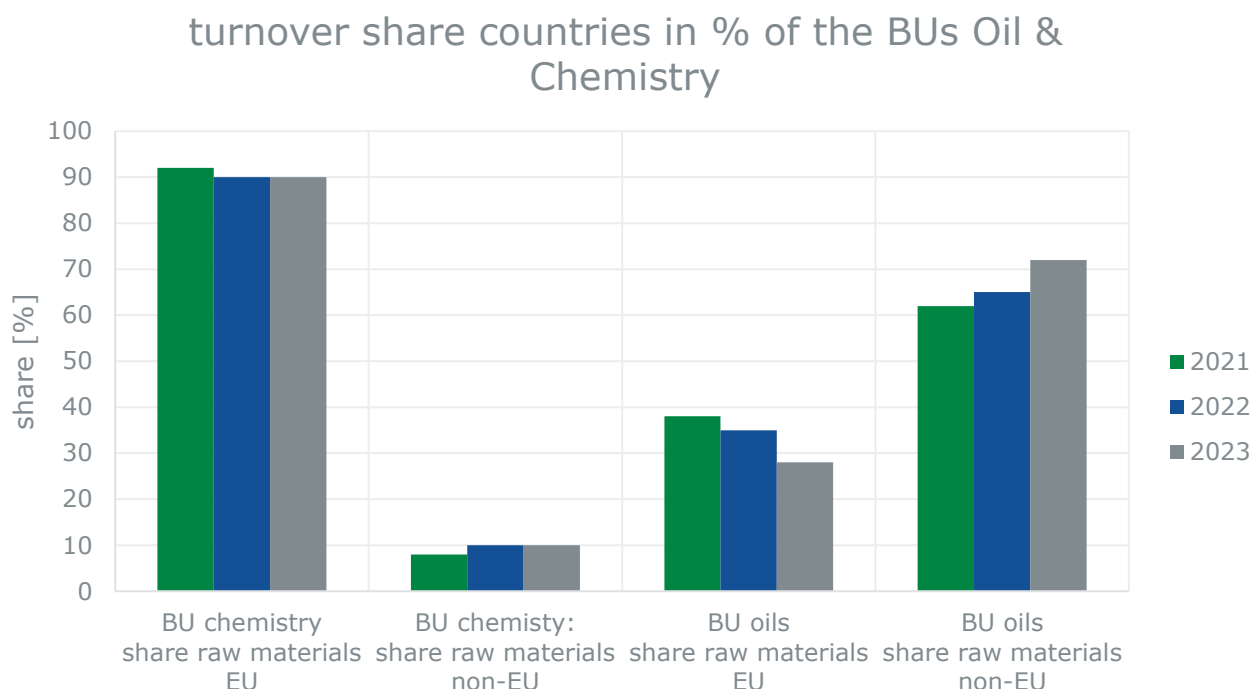
Our first step is to conduct an in-depth risk assessment of our suppliers in order to carry out a more in-depth evaluation and analysis.

Our aim is to establish sustainable and responsible procurement practices that not only fulfil our requirements, but also have a positive impact on our entire supply chain.

We are determined to consistently apply CSR criteria to the procurement of relevant raw materials and packaging materials and strive to continuously improve our quotas in this area.

We source the majority of our chemical raw materials from European suppliers for strategic reasons in order to fulfil legal requirements in addition to sustainability.

The non-EU share in the Oils BU is due to the fact that the raw materials are not available in the European Union. For these imported raw materials, such as castor oil, we pay particular attention to the important aspects and are committed to applying our established risk assessment procedures to ensure that our values and standards are consistently implemented here too.



## Supplier management

Purchasing acts in accordance with precisely defined purchasing and supplier management processes. Within this framework, long-term contracts and proactive supplier management play a central role, particularly with regard to strategically important raw materials and services. These elements are crucial to minimising specific risks in the purchasing area, such as supply bottlenecks or significant price fluctuations. At the same time, they help to strengthen the company's competitiveness and ensure that production processes run smoothly. By establishing long-term partnerships and actively managing supplier relationships, we strive to secure our supply chains and the long-term stability of our corporate activities in addition to economic aspects.

When selecting our suppliers, we already comply with standards such as DIN EN ISO 9001:2015 and ISO 14001:2015.

Supplier audits to monitor external processes and an annual supplier assessment are carried out to support this process.

Our unreserved commitment to respecting human and labour rights is an integral part of our corporate values. We actively endeavour to promote these standards not only within our own company, but along the entire value chain. When working with our business

partners, we expect them to respect these principles and to be committed to health and safety at work.

By using proven tools such as the EcoVadis assessment methodology and implementing a code of conduct, we can ensure and manage sustainability along our global supply chain.

### **Resource-efficient and sustainable packaging**

In a world that is increasingly characterised by environmental awareness and sustainability, we as a company face the challenge of designing our production processes and products in such a way that they meet the requirements of a sustainable future. As a chemical company, we in particular are supporting the switch to sustainable packaging. Our packaging plays a decisive role when it comes to the safety, storage and handling of substances.

We strive to find innovative solutions for the use of sustainable sales containers. Our aqueous binders and our oil products must be filled in airtight containers in order to guarantee the longest possible stability.

For aqueous products, we use IBCs and drums made of HDPE (high-density polyethylene plastic). In the oil sector, we use IBCs and steel drums, of which approx. 80% are reconditioned steel drums.

We are pursuing the approach of improving our CO<sub>2</sub> footprint and conserving resources such as steel, plastic and wood. That is why we already use partially recycled packaging that is suitable for reprocessing and reuse.

We not only purchase new IBCs, but also so-called rebottled IBCs, i.e. the steel cage and the wooden or plastic pallet are used, only the inner container is new.

We are proud to have been using plastic drums with a recycled content of 30% for several years now.

By working with reconditioners, the containers are reintegrated into the market cycle after thorough processing. This sustainable practice not only has economic benefits, but also makes a significant contribution to reducing our environmental impact.

In 2023, our strategic packaging management took the first steps to reduce CO<sub>2</sub> emissions. We have thus laid a fundamental building block for global climate protection and will set specific targets for further emission reductions in the coming years.

We are determined to continue on this path and to continuously intensify our efforts in favour of environmentally friendly business practices.

### **Outlook for sustainable packaging**

From the 3rd quarter of 2024, we aim to procure new IBCs with an inner container made of 30% recycled HDPE, which unfortunately has not yet been possible.

The aim is to work towards a bag-in-the-box solution, i.e. IBCs made of cardboard with a thin plastic inlay will be used, which will reduce the amount of plastic in the container.

We have also initiated a project to significantly reduce the plastic and steel content of our IBCs. The production of the bag-in-the-box consists of approx. 95% renewable and approx. 90% recycled raw materials.

By dispensing with the steel box during production, the resource steel can be saved and the packaging and transport weight can be reduced by approx. 30kg, thus saving approx. 50% CO<sub>2</sub> emissions from the packaging.

By optimizing the packaging also improves the efficiency of residual emptying by approx. 80%, i.e. there is less raw material residue in the container and therefore less waste and more resources.

### **3.3 Field of action environmental protection**

Alberdingk Boley maintains an Integrated Management System (IMS) for the company-wide operational management of energy and environmental issues, in which the areas of quality, energy, environmental protection and occupational health and safety are brought together in one management system. Among other things, the IMS is based on the energy and environmental standards ISO 50001 for energy management and ISO 14001 for environmental management.

Regular internal and external audits ensure the continuous improvement of energy management and the further development of environmental performance. This also includes measures to minimise waste and preserve biodiversity.

Environmental and energy issues at Alberdingk Boley are managed via a matrix organisation. Local environmental protection and energy officers and experts from the strategic departments are in regular dialogue on these topics. Performance indicators are used to plan, evaluate and manage environmental measures. The need for action and measures are regularly discussed and decided upon with the management of Alberdingk Boley.

A management review is carried out at least once a year by the head of the IMS. Among other things, possible new objectives and the status of projects already underway are discussed and documented. These meetings are supplemented by annual opportunity and risk analyses.

## **Product-related and operational environmental protection**

All of our production and sales locations should be operated in an efficient, environmentally and climate-friendly manner. This includes saving energy, water and waste as well as keeping the soil, water and air clean.

Climate change is confronting mankind with a major global challenge. Entire ecosystems are already severely impaired and threatened, with increasing consequences for our livelihoods. Among these, environmental disasters pose an ever-increasing risk to economic stability. Environmental and climate protection therefore also play a very important role in our business processes.

We aim to continuously improve the ecological footprint of the Krefeld site and Alberdingk Boley GmbH as a whole through responsible and efficient use of the environment and resources.

With our energy and environmental management, we want to make our contribution to climate protection and also prepare ourselves for future business-relevant developments and regulatory requirements. For our Krefeld, Kerpen and Leuna sites, we recorded the greenhouse gases caused by our business activities, known as corporate carbon footprints, in 2023. Catalogues of measures to reduce these emissions were developed as early as 2023 as part of energy management and their implementation is already in full swing. We want to transfer the calculation of the corporate carbon footprint to all locations and develop further measures and targets based on this.

## **Advanced sustainability initiative: photovoltaic system successfully implemented**



In an effort to further strengthen our sustainability efforts and maximise our contribution to environmental protection, a photovoltaic system was installed on the Alberdingk Boley Leuna site in 2023.

The plant covers an area of around 9,500 m<sup>2</sup> and comprises a total of 2,280 photovoltaic modules.

With an average annual yield of around 1.22 GWh, it makes a significant contribution to the switch to renewable energies. The main aim of the plant is to cover our own energy requirements and thus reduce our dependence on conventional energy sources. In addition, we have the option of feeding surplus energy into the public grid during the summer months.

This underlines our commitment to sustainable energy production and use as well as our willingness to share with the community and pursue common goals towards a greener future. The plant has been successfully operating since January 2024 and is making a

significant contribution to reducing our carbon footprint. The electricity generated covers around a third of our annual electricity needs (base year 2023) and is an important step on our journey towards greater environmental sustainability and resource efficiency.

We are proud of the fact that this initiative not only offers ecological benefits, but also makes economic sense and helps to secure the future viability of our company in the long term.

## **Life cycle approach**

### **Life cycle assessments**

Life cycle assessments have several functions: They can identify potential for the efficient use of raw materials and energy as well as a reduction in environmental pollution through lower emissions of pollutants and waste. Furthermore, life cycle assessments can serve as a basis for environmental comparisons, decisions and objectives.

Life cycle assessments are used to systematically record and evaluate the environmental impact of products over their entire life cycle. The methodology is based on the international standards DIN EN ISO 14040 and DIN EN ISO 14044. To calculate a life cycle assessment, all relevant influencing factors during the life cycle of a product are recorded. Inputs are, for example, all raw materials as well as energy and water consumption. Outputs include waste and emissions.

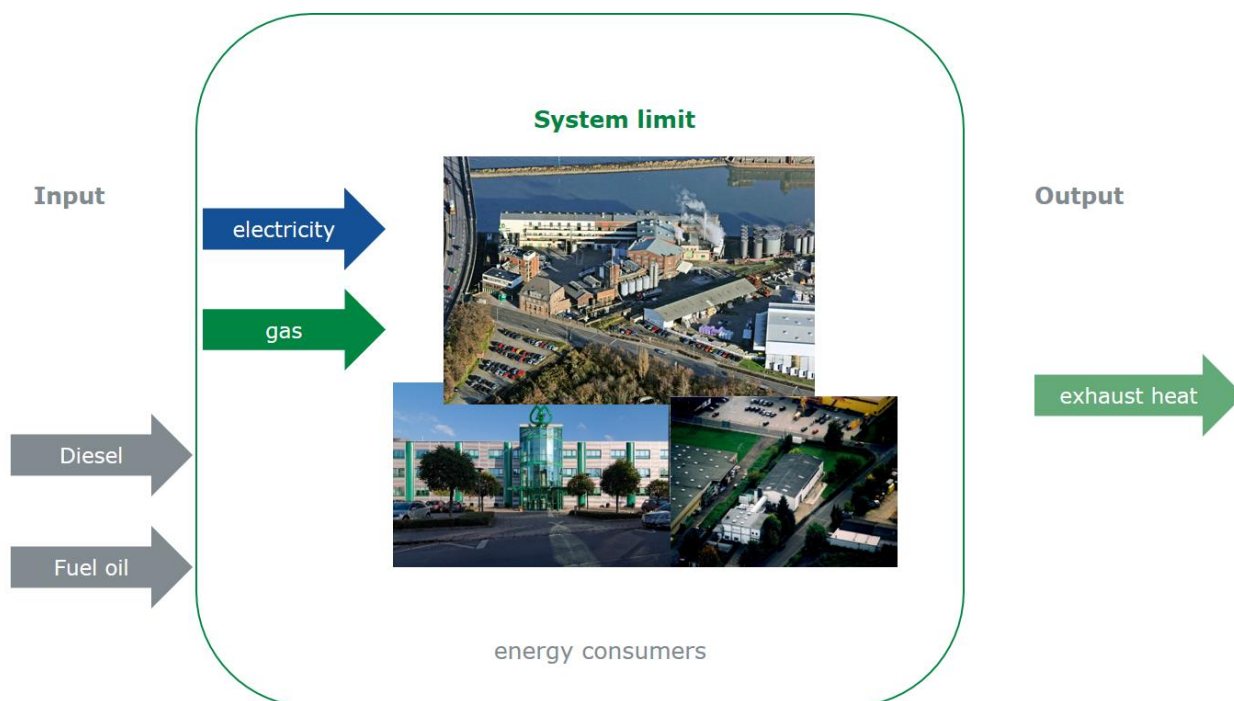
Based on these inputs and outputs, an impact analysis is carried out and key figures are then calculated, such as the global warming potential (GWP), also better known as the carbon footprint or CO<sub>2</sub> balance. In future, these key figures will be used as the basis for our climate protection targets in the area of raw materials and packaging, among other things.

In 2019, we took part in an EPDLA study on the topic of product carbon footprint (PCF) and would like to start collecting more detailed data for determining the life cycle assessment in 2024



## Energy manmagement

To draw up the overall balance, the system boundaries are first defined. It must be taken into account the overall structure is complex due to the different locations and plant areas.



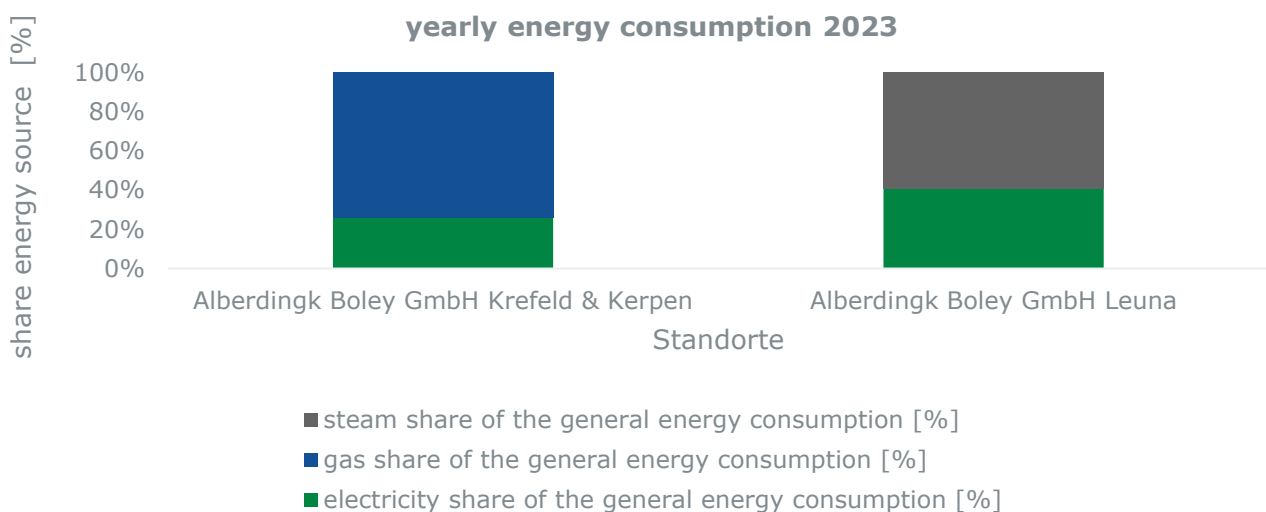
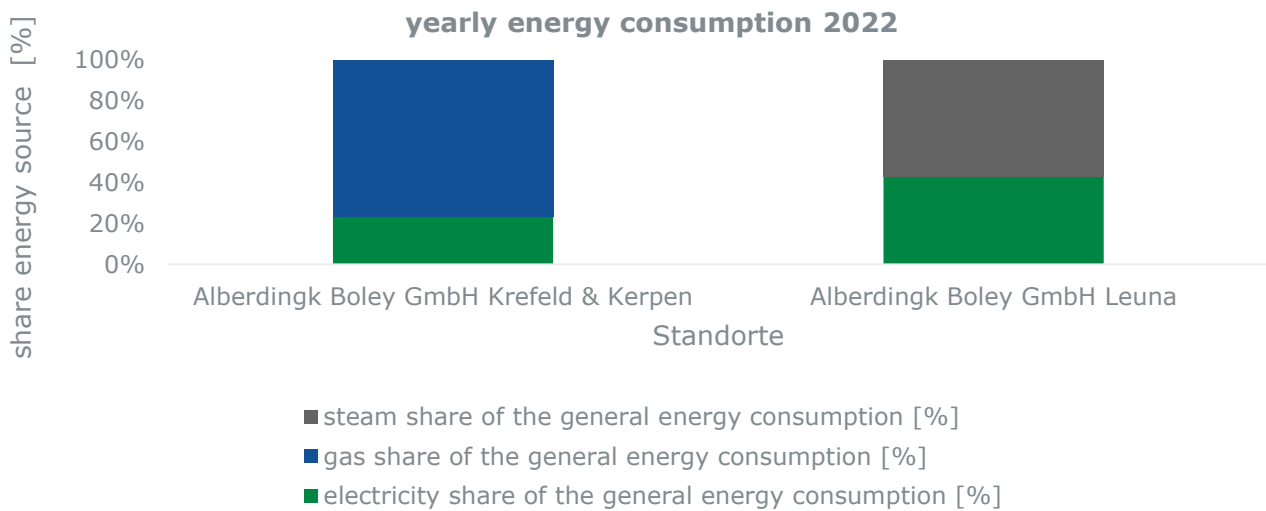
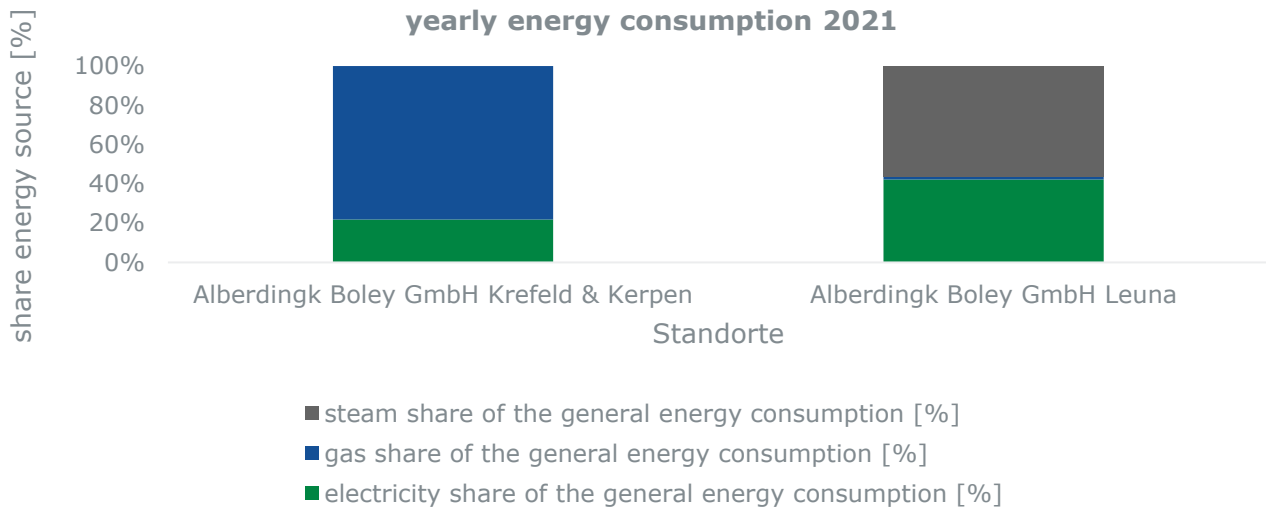
To simplify matters, the system boundary is defined by the energy sources used (input) and the energy consumers for the entire company.

The output in the form of waste heat wasn't considered in 2023. This will be included in the system boundary from 2024 as part of the new Energy Efficiency Act.

In order to determine the main areas of energy use, i.e. the main sources, the so-called Significant Energy Uses (SEUs), the shares of the consumer groups in total consumption are first determined and their influenceability is assessed with the categories A, B and C. The SEUs are defined as the consumer groups that cumulatively make up 80% of total consumption (80% limit) and are assessed with influenceability 'A'. The consumer groups that cumulatively account for 80% of total consumption (80% limit) are defined as SEUs and are rated as 'A' in terms of influenceability.

The energy-intensive processes or consumers can then be identified from this. The process/consumer with the greatest influenceability is thus identified and analysed for potential savings.

The most energy-intensive processes are the provision of heating energy (gas) for steam generation and the provision of cooling water.





Most of the energy required is covered by gas and electricity. Gas is required for process heat in the form of steam. Gas also covers the energy requirements of building heating systems. Electricity is the main source of energy for all electrical drives, in particular for the provision of cooling water and stirring energy.

## **Climate protection**

All local companies must comply with the applicable laws and regulations. With regard to air and wastewater emission parameters, the limit values are specified in the licences in accordance with the Federal Immission Control Act (BImSchG). This also specifies the intervals at which monitoring measurements must be taken and submitted to the authorities.

When issuing licences, the authorising authorities must be guided by the TA-Luft specifications.

The last emissions measurement at the Alberdingk plant was carried out on 23 April 2022 and no defects were identified.

In 2023, a new reverse osmosis plant was built at the Alberdingk plant for the production of demineralised water, which replaced a plant with an ion exchange concept. As a result, wastewater volumes will increase, but the use of strong acids and bases will be permanently reduced.

As part of our ongoing efforts to operate in a sustainable and environmentally conscious manner, we will keep you informed of our latest developments.

As part of our commitment to environmental protection and efficiency, we are planning to significantly improve our exhaust air purification system by implementing a multi-stage filter system that combines a scrubber and an activated carbon filter in the main flow.

The decision in favour of this technological advancement is based on our pursuit of optimum air quality and compliance with strict emission regulations. The new system is an effective solution to remove harmful substances from the exhaust air and thus contribute to reducing our environmental impact.

Our detailed planning includes a comprehensive analysis of the technical requirements as well as the structural and operational aspects to ensure the implementation of the new system runs smoothly and efficiently. In doing so, we emphasise the introduction of state-of-the-art technology, as required by TA-Luft.

In the next step, we will tackle the approval planning to ensure that all regulatory requirements and conditions are met. We are endeavouring to make this process transparent and cooperative and are in close contact with the relevant authorities to ensure a smooth approval process.

We are convinced the implementation of the new exhaust air filtration system represents a significant step towards environmental protection and sustainability, while at the same time optimising our operating processes.

### **Climate neutrality - determination of greenhouse gas emissions**

In view of the global urgency of the climate crisis, Alberdingk Boley is committed to making a substantial contribution to sustainability and significantly reducing its climate impact. For the first time, Alberdingk Boley is committing to the continuous reduction of its specific corporate carbon footprint (CCF). In the coming years, we will first record our CCF and then define specific targets to sustainably reduce our emissions.

As a concrete step in this direction, Alberdingk Boley's Plant C will be completely converted to the use of renewable green electricity.

In addition, the company is planning significant improvements to its heating and cooling system to further increase its energy efficiency and minimise its environmental footprint.

These measures emphasise our ongoing commitment to sustainable business operations and demonstrate our determination to make a positive contribution to climate protection.

Further targets to reduce greenhouse gas emissions have yet to be set. The company is pursuing this goal through a strategic alignment with the Greenhouse Gas Protocol (GHG Protocol), which forms the framework for our comprehensive CO<sub>2</sub>e reporting (CO<sub>2</sub>e = CO<sub>2</sub> equivalent).

For Alberdingk Boley, climate neutrality means minimising our operational climate impact and offsetting all unavoidable emissions.

Our commitment is focussed on specific measures to reduce emissions. We have already developed initial offsetting strategies for emissions that cannot be completely avoided despite all precautions. These strategies are continuously being developed and could be expanded, for example by implementing a comprehensive action plan.

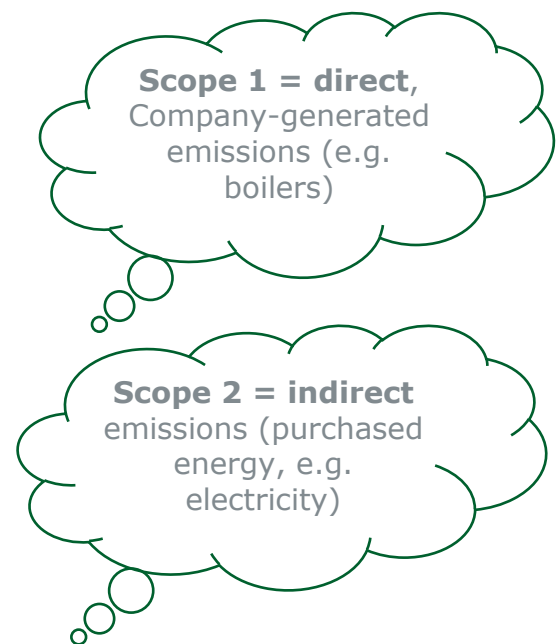
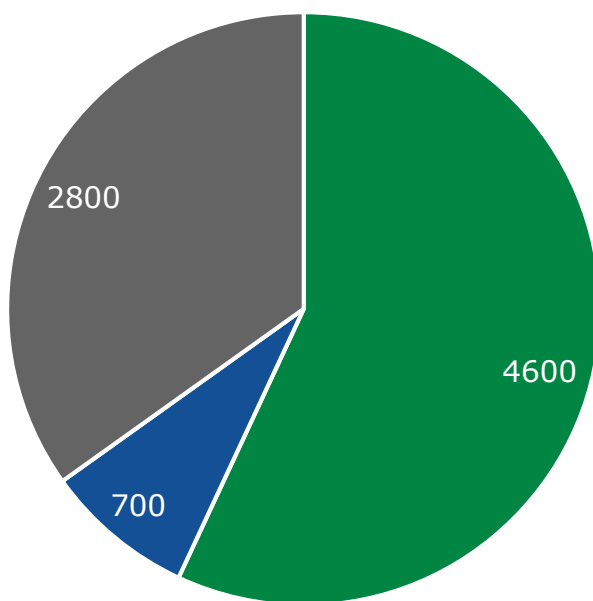
In order to precisely define and successfully achieve our goal of climate neutrality, we plan to develop an action plan by the end of 2024, with specific offsetting measures still to be defined.

In order to ensure a detailed overview of our climate impact and increase transparency towards our stakeholders, we are committed to developing an action plan in 2024 and strive for continuous improvement in the recording of greenhouse gas emissions across all three scopes. Our initial focus is on improving data quality for Scope 1 and Scope 2, while from the end of 2024 we will begin to record greenhouse gas emissions within our value chain (Scope 3).

This approach enables Alberdingk Boley to develop effective strategies to reduce emissions and thus make a significant contribution to climate protection.

- The recording and disclosure of the following greenhouse gas emissions are of central importance:
- - Direct greenhouse gas emissions (Scope 1): Emissions from company-owned sources, such as the combustion of fuels in our production facilities or company vehicles.
- - Indirect greenhouse gas emissions from energy generation (Scope 2): Emissions resulting from the generation of purchased energy, such as electricity or heat.
- - Other indirect greenhouse gas emissions (Scope 3): Emissions that occur along our value chain, including the procurement of raw materials, production, transport, use of our products by end customers and their disposal.
- With a clear commitment to transparency and responsibility, Alberdingk Boley is positioning itself as a pioneer in the field of sustainability and emphasising its role as a responsible participant in the global effort to tackle the challenges of climate change.

**green house gas emissions Alberdingk Boley Germany**  
**8100 t CO<sub>2</sub>e (Scope 1+2)**



■ Alberdingk Krefeld      ■ Alberdingk Kerpen      ■ Alberdingk Leuna

Our action plan is based on the Corporate Sustainability Reporting Directive (CSRD). An action plan in accordance with the CSRD could include the following elements:

1. Emissions inventory: A detailed recording and evaluation of the company's greenhouse gas emissions along the entire value chain.

2. Definition of reduction targets: Set specific targets to reduce greenhouse gas emissions that are in line with science-based climate targets and international standards. These targets should be measurable, monitorable and time-bound.
3. Identification of measures: Analyse opportunities to reduce greenhouse gas emissions in different areas of the business, including energy efficiency, using renewable energy, optimising production processes, sourcing sustainable raw materials and encouraging changes in employee and customer behaviour.
4. Prioritisation of measures: Evaluation and prioritisation of identified measures based on their effectiveness, feasibility, cost and other relevant criteria.
5. Implementation planning: developing a clear timetable and budget for the implementation of the selected measures, including assigning responsibilities and setting milestones to monitor progress.
6. Monitoring and reporting: setting up a system to continuously monitor and measure greenhouse gas emissions and progress in implementing the measures. Regular reporting on results and progress to stakeholders.

### **CO<sub>2</sub> savings with the biomass balance approach**

Alberdingk Boley has set itself the goal of further developing resource-saving products, using products with renewable raw materials and utilising resource-saving packaging.

The overall aim is to improve the ecological footprint. To get one step closer to this goal, preparations for the biomass balance approach have been underway since the end of last year 2023. We will therefore be sourcing biomass balance-based raw materials from 2024 in order to start using the biomass balance approach.

## How does the biomass balance method work?



source: <https://www.iscc-system.org/certification/chain-of-custody/mass-balance/>

In addition to the direct use of renewable and bio-based raw materials, we have decided to adopt the new biomass balance method for certain products. The biomass balance process involves using biomass instead of fossil resources as a raw material right at the start of the value chain.

This biomass is then mathematically allocated to the defined Alberdingk Boley products. The equalised mass balance is certified with ISCC PLUS by TÜV Nord as an independent third party. This process has the great advantage that renewable raw materials can be utilised in the existing production network. The product properties remain fully intact. ISCC PLUS certification is planned for 2024.

## Water management

Water consumption at the Krefeld site is largely due to its use for the facilities and as a raw material during production, as well as the use of sanitary facilities. Our facilities have to be cleaned at regular intervals. The frequency of cleaning processes is minimised by adapting the product sequence accordingly, thereby keeping the amount of washing water and waste to a minimum.

In 2023, a total of approx. 100,000 m<sup>3</sup> of water was purchased, which is divided into approx. 75,000 m<sup>3</sup> of municipal water and approx. 25,000 m<sup>3</sup> of well water.

Around 56,000 m<sup>3</sup> of wastewater was discharged into the public sewerage system. If we compare the input and output with 2022, we used approx. 17,500 m<sup>3</sup> less water in 2023. The amount of wastewater has remained almost the same.

A large proportion of the city water is converted into soft water (fully demineralised) by the reverse osmosis system (IBN 2023) and processed in our products. The well water is fed into the cooling water circuit and then partly used to clean the systems.

The following topics were implemented within water protection in 2023:

- The installation of the extinguishing water retention system including extinguishing water bulkheads in the weighing stations and systems 1-6 has been completed and put into operation. An "effective principle test" by the expert is still pending.
- Decommissioning of the old ion exchanger system incl. neutralisation system and commissioning of the new reverse osmosis system for the production of soft water.
- Replacement and successful commissioning of reactors plant 1-5 (part of HBV plant according to AwSV)

- Cooling water (indirect blowdown)
- Cleaning and rising waste water
- Production waste water (vacuum ore)
- Blowdown water from steam generation
- Rinsing and regeneration water
- (ion exchange system) from TE system
- Retentate from reverse osmosis (demineralised water)
- Sanitary waste water and rainwater



Sewerage system



Waste water treatment plant (sedimentation tank and neutralisation plant)



Sewerage system City of Krefeld

## Waste management

Alberdingk Boley products are characterised by their low content of hazardous substances, reflecting our commitment to environmental and consumer safety. At all our sites where more than 2,000 tonnes of non-hazardous waste or more than 100 tonnes

of hazardous waste is generated annually, a dedicated waste management officer is appointed regardless of legal requirements.

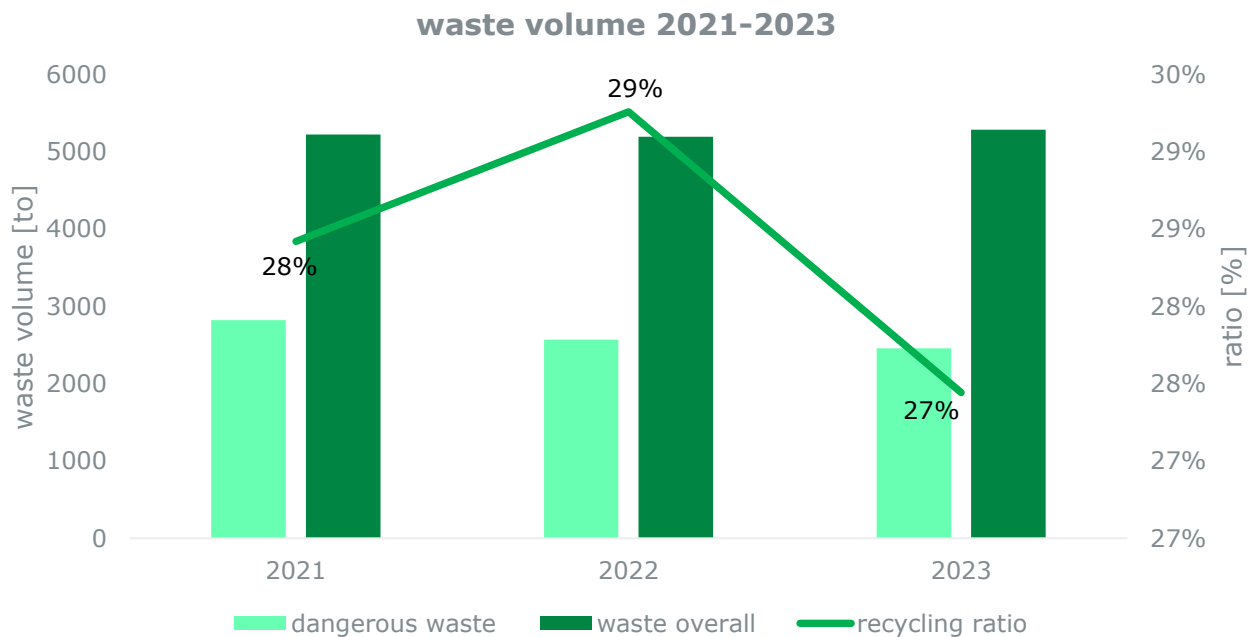
Our service providers for waste disposal are selected in accordance with the strict requirements of our integrated management system (IMS) and are regularly audited.

The type and frequency of these reviews depend on the specific requirements of the service provider, be it for the disposal of hazardous waste, scrap or non-hazardous waste.

Our primary goal in waste management is waste prevention, for which a deep understanding of our processes is essential to identify potential sources of waste.

In addition, we strive to recycle waste and send it for recognised recovery if it cannot be reduced further

We are proud that a recycling rate of around 30% has already been achieved at our Kerpen and Leuna sites by feeding waste into an efficient recycling process in accordance with the applicable regulations. This underlines our commitment to the circular economy and to minimising our environmental impact.



Having emphasised our commitment to minimising waste and implementing environmentally friendly processes, we would now like to look specifically at the measures that Alberdingk Boley implements to prevent waste. Our strategies aim to identify sources of waste, develop efficient processes and optimise the use of raw materials and products. Both our quality controls and our continuous improvement processes play a central role here. Let us now take a closer look at these measures.

**Our waste prevention measures:**

Use of raw materials according to FiFo (First in/First Out) to avoid overstocking and resulting disposal.

Raw materials are automatically instructed to be re-tested at fixed intervals. Depending on the result, accelerated use and/or targeted use of preservatives takes place. The aim is to avoid waste.

If finished products are not immediately put on sale, these stocks are also subject to fixed re-test rhythms. This also applies to stocks held by external service providers. Here too, efforts are made to maintain the necessary product properties and directly reduce waste.

Due to product lifecycle rhythms, there are rarely small residual stocks of individual raw materials with no further use. One possible measure is to try to return them to the supplier. If necessary, a last use is also examined. A number of measures are taken to avoid waste here too.

Unfortunately, waste cannot always be avoided.

At best, waste can be returned to the circular economy with the help of recycling processes. We are pleased that our highest-volume waste stream is once again finding buyers via recycling.

Of course, we also collect metals, wood, PE film, paper, electronic waste, etc. separately in order to minimise recycling costs and prepare for reuse.

For unavoidable waste, the second priority is recycling and, ultimately, the disposal of waste. The aim here is to achieve the highest possible recycling rate.

Milk runs are not only an efficient solution for transport and logistics, but can also be integrated into waste management in an innovative way to support sustainability goals in accordance with Corporate Sustainability Reporting (CSR).

In the context of waste management, milk runs can be used to efficiently collect waste from different production sites or pick-up points and transport it to centralised disposal or recycling facilities. By implementing a milk run system, empty runs can be minimised and transport capacity optimally utilised, leading to a reduction in CO2 emissions and improved resource efficiency.

At Alberdingk Boley, we see the Milk Run not only as a logistics solution, but also as a tool to optimise our waste management. By implementing Milk Runs into our waste logistics, we aim to dispose of our waste efficiently and sustainably. This measure not only supports our operational efficiency, but also helps to minimise our environmental impact and strengthen our contribution to CSR goals.



## **Plant and transport safety**

### **Operational organisation for the prevention of incidents and safety management**

The organisation of operations with regard to safety is not limited to the legal requirement to prevent incidents but takes a comprehensive approach in accordance with the principles laid down by the management with the aim of avoiding even minor incidents and dangerous situations. The scope of the safety management system - abbreviated as SMS in the following - is correspondingly extensive.

The existing safety management system of Alberdingk Boley GmbH is integrated into the integrated management system (IMS) and, where possible, draws on regulations of the externally certified integrated management system (IMS in accordance with ISO 9001, 14001, 50001 and ISO 45001) of Alberdingk Boley GmbH. The documented instructions apply to employees and contractual partners. It serves to fulfil the organisational safety obligations of the Hazardous Incident Ordinance ("Störfallverordnung").

The SMS reflects the structural, procedural and project organisation of Alberdingk Boley GmbH. The safety concept and the instructions describing the management system as well as the applicable documents are always available to employees in their current version on the intranet.

This system is intended to ensure the applicable safety standards with regard to plant safety are implemented and applied.

The aim of all documented regulations and procedures is the efficient cooperation of all areas to fulfil internal and external requirements.

The concrete need for action for the continuous improvement of the company and the management system is derived from the measures for checking the effectiveness of the SMS. The SMS is valid for Alberdingk Boley GmbH at the Krefeld site.

## **Concept for the prevention of incidents (safety concept) and safety management system (SMS)**

The safety concept in accordance with §8 of the Hazardous Incident Ordinance ("Störfallverordnung") has been developed taking into account the potential hazards existing in the operating area and the circumstances associated with the operation and fulfils the objectives of the management with regard to plant safety.

The corporate philosophy and principles are based on the following cornerstones:

- - Environmental protection and plant safety
- - Occupational health and safety
- - Corporate values, employees
- - Quality management system and continuous improvement
- - Customer orientation

The corporate principles are displayed in the company and are available on the intranet. The concept for the prevention of incidents describes the principles and objectives of safety management.

## **Higher level protective equipment and devices - Accident prevention and mitigation measures**

Section 3 of the Hazardous Incident Ordinance ("Störfallverordnung") specifies the safety obligations of the operator of an operating site that falls within the scope of the Hazardous Incident Ordinance ("Störfallverordnung"). According to this, the operator must take the precautions required by the nature and extent of the potential hazards in order to prevent major accidents and take precautions to minimise the effects of major accidents as far as possible.

The requirements for preventing major accidents are described in §4 and those for minimising the effects of major accidents in §5. Section 6 requires the inspection of the construction and operation of safety-relevant plant components, their constant monitoring and regular maintenance in accordance with recognised engineering standards and documentation in the safety report.

In addition, precautions must be taken to prevent operating errors, personnel training to prevent misconduct and instructions on rules of behaviour in accordance with the alarm and hazard prevention plan.

The specific measures to be taken in accordance with these obligations are the result of systematic analyses carried out as part of the planning, construction and modification of the facilities in the operating area. Finally, these measures were determined and evaluated as part of the safety report and here explicitly as part of the hazard analyses.

The main safety objectives include the protection of employees, soil and water as well as the prevention or limitation of the effects of a fire or explosion in the event of a substance release. In principle, all measures aimed at preventing the release of accident-relevant substances can be summarised as accident-prevention measures. These include, for example, all PCT monitoring and protective devices, design features, safety valves and bursting discs.

Incident-limiting measures are all facilities that no longer prevent the release of substances relevant to an incident but limit their effects in the event of a release. These include, for example, drip pans, containment bulkheads, catch containers, fire detection and extinguishing systems.

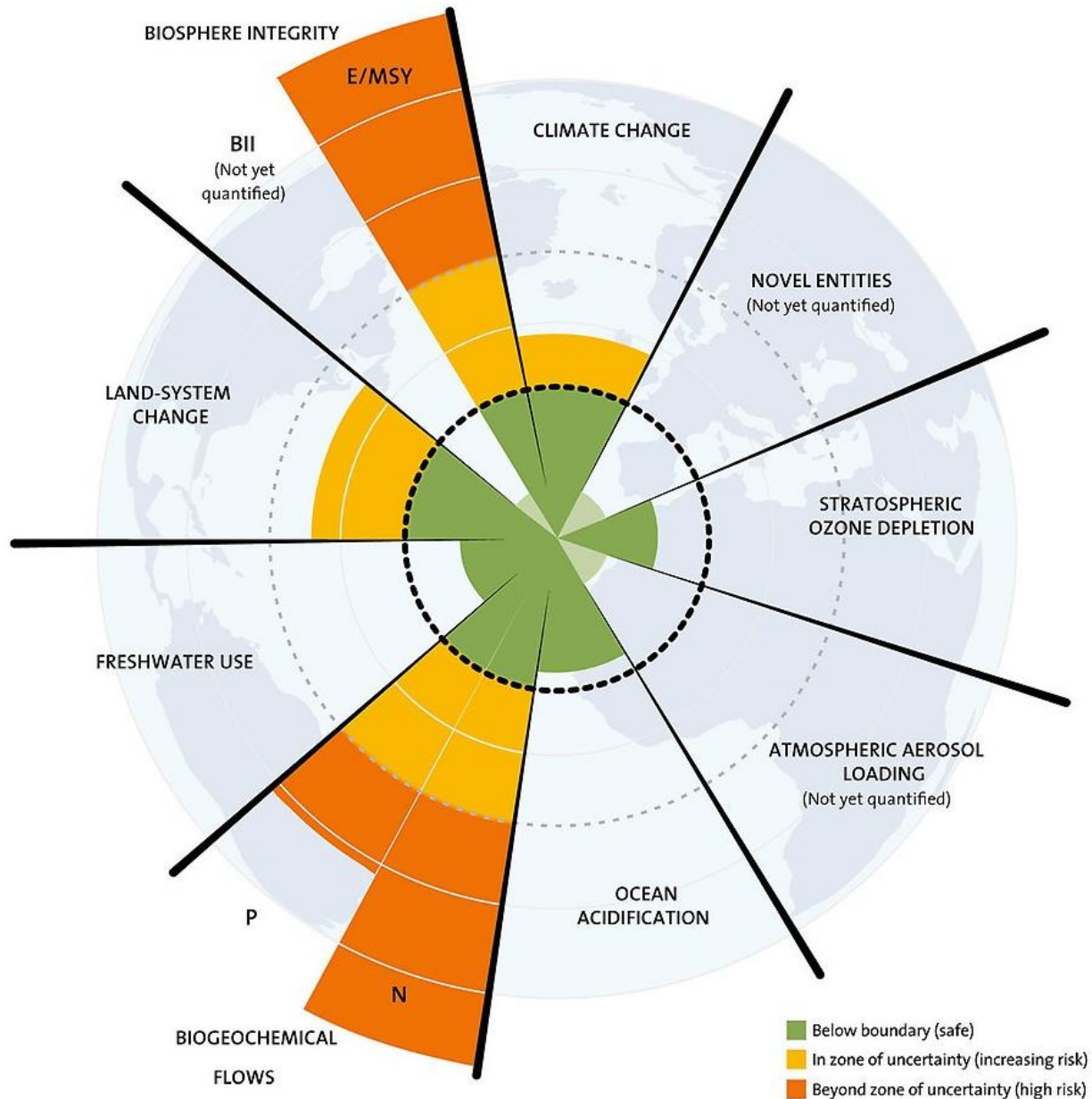
### **Outlook on plant and transport safety**

With regard to plant safety, we are pleased to inform you that we are continuously working to review and improve our risk assessments within the legally prescribed deadlines. This includes continuous adaptation to the latest state of the art. These measures not only strengthen the safety of our facilities, but also represent an important step towards more sustainable operations management. Our commitment to continuous improvement helps to minimise the risk of accidents and ensure the protection of our employees, the community and the environment, while at the same time optimising our production processes and making them more efficient.

### **An eye on the value chain**

We use supplier products with the lowest possible risk and strive to continuously improve energy efficiency when selecting products and services.

## Planetary boundaries and resiliency



source: <https://www.stockholmresilience.org/research/research-news/2017-11-20-a-fundamental-misrepresentation-of-the-planetary-boundaries-framework.html>

The concepts of planetary boundaries and resilience are crucial to understanding the urgency and challenges we face in terms of sustainability and environmental protection.

These topics are partly in line with the requirements of the European Union's Corporate Sustainability Reporting Directive (CSRD), which requires companies to report on their environmental impacts and the measures taken to mitigate these impacts. We will report for the first time in 2026 for our 2025 data in accordance with CSRD.

The 1998 Living Planet Report, published by the World Wide Fund For Nature (WWF), was a pioneering work that drew attention to the state of our planet and emphasised the need for a harmonious relationship between human activities and the Earth's natural boundaries. It presented staggering data on the decline in biodiversity and the increasing pressures placed on natural systems by the human footprint.

The idea of planetary boundaries, which was later formulated, builds on this foundation and identifies nine critical thresholds (such as climate change, biodiversity loss, land-use change) that, if exceeded, risk pushing the Earth out of its stable Holocene state in which civilisational developments could unfold.

These boundaries are closely interlinked and influence each other, emphasising the need for an integrated approach to environmental challenges.

Resilience in this context refers to the ability of systems to absorb shocks, adapt and recover from change while maintaining essential functions.

In the context of CSRD, resilience to environmental and social challenges is a key element that companies must address. It is about developing resilient business models that not only strive for economic success, but also take into account the ecological and social foundations of their actions.

For companies, this means they not only have to evaluate and minimise their direct impact on the environment, but also that they have to be transparent in their reporting about how they contribute to overcoming global challenges such as climate change, the loss of biodiversity and the overexploitation of natural resources. This requires a deep understanding of their own dependencies and impacts along the entire value chain and the development of strategies that promote resilience and sustainable practices.

By incorporating concepts such as planetary boundaries and resilience into corporate strategy and reporting under CSRD, companies not only demonstrate their commitment to sustainability, but also contribute to a more resilient and sustainable global economy.

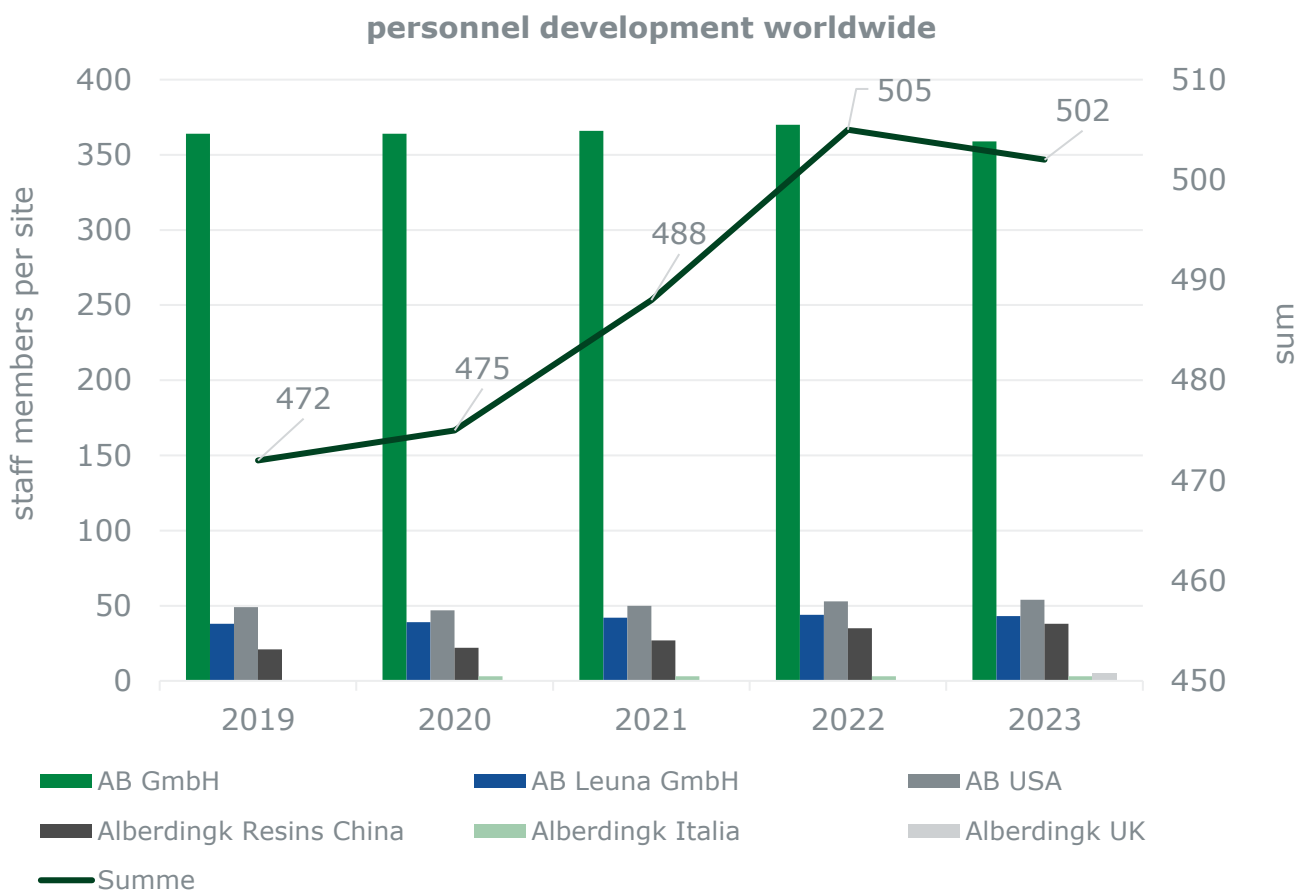
### 3.4 Field of action Employees

#### Employment

##### Guidelines

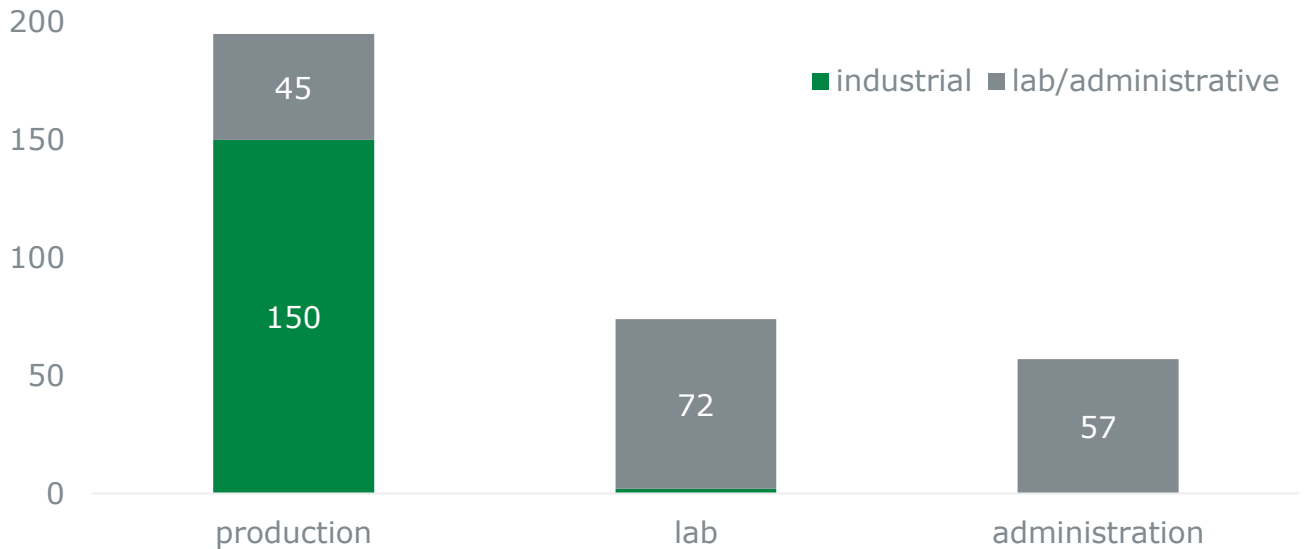
Our guidelines are available to all employees on the intranet and on the notice boards. They regulate respectful, friendly cooperation and lay down clear rules. Our Code of Ethics is also available to everyone and can be accessed on our website.

The Alberdingk Boley Group employs around 500 people worldwide. There are 402 employees at the main site in Germany, 359 of whom work in Krefeld and Kerpen, and 43 in Leuna. There are 54 employees in the USA, 38 in China, 3 employees at our subsidiary in Italy and 5 employees at Alberdingk UK, which opened in autumn 2023.



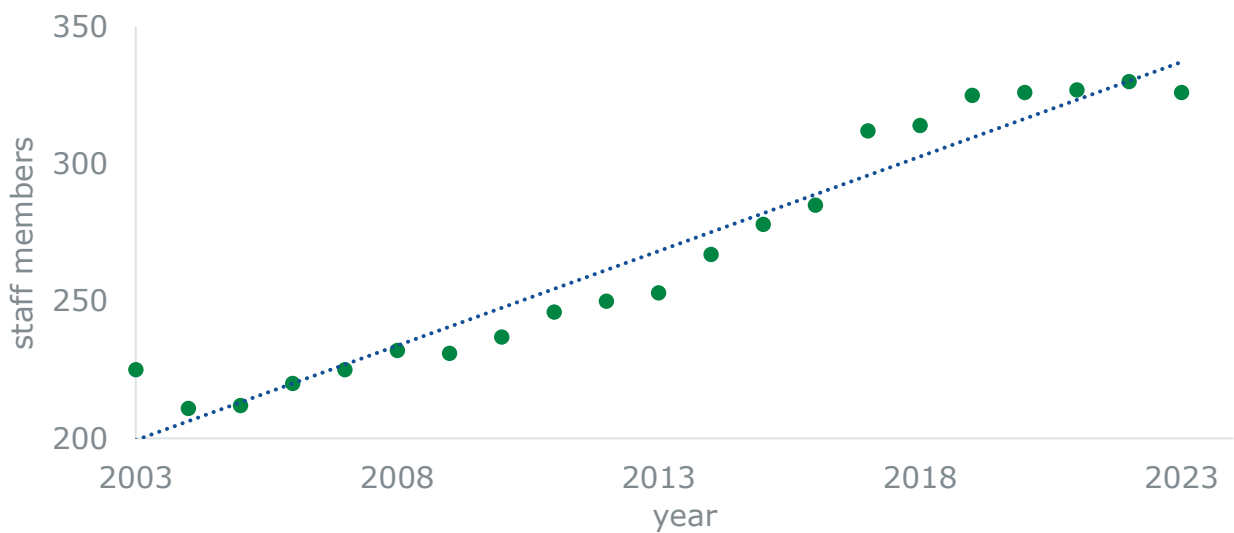
Looking back over the last few years, sustainable growth in the Group's personnel development can be seen more or less at all locations.

**staff distribution of the AB GmbH 2023**



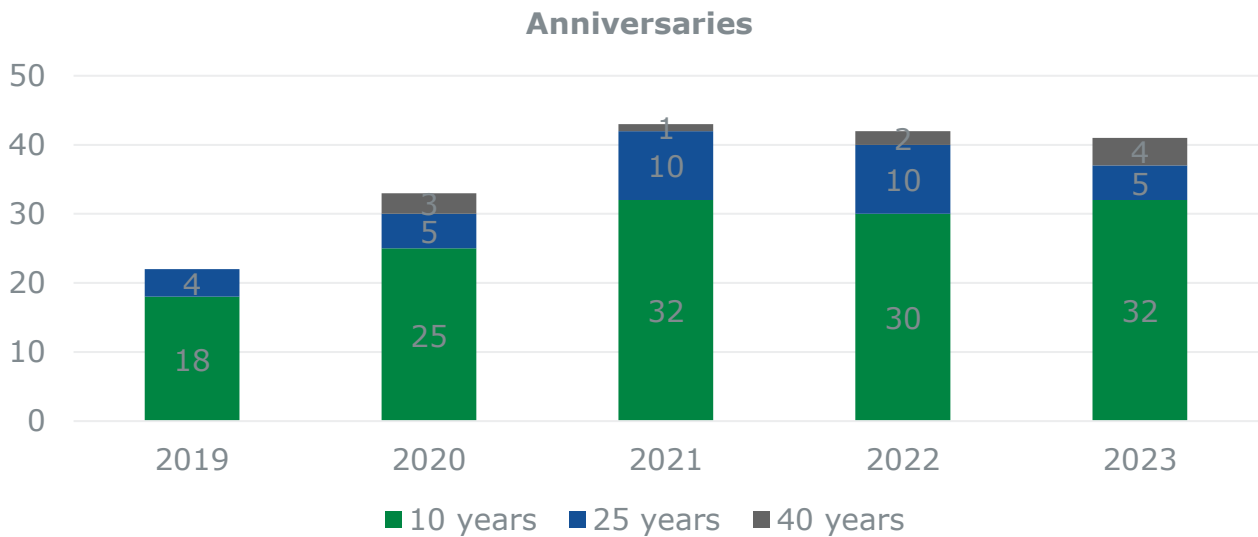
Employee development over the last 20 years shows steady growth.

**Staff development of the Alberdingk Boley GmbH**



## Anniversaries and youngsters

We rely on a combination of experienced experts and young newcomers. In 2023, 41 colleagues in Germany, the USA and China had reason to celebrate. Affiliations of 10, 25 and 40 years were honoured.



## Education

36 trainees were trained in various professions, including chemical technicians, chemical laboratory technicians, IT specialists for system integration, industrial clerks, metalworkers and electricians.





## **Protection against criminal offences**

To protect employees and the company from criminal offences, we rely on an IT and information security system and raise awareness through regular training. Regular audits have shown that we fulfil all requirements with regard to system and IT security.

We have also established a whistleblower protection system. This can be accessed by all employees on the intranet by clicking: <https://portal.bdolegal-whistleblower.de/>

## **Compliance and risk management**

We focus on long-term partnerships and pay attention to quality, environmental and social standards in our procurement. We want to ensure a high level of supply security for raw materials and packaging for all our production sites.

### **Compliance**

For Alberdingk Boley, it is a matter of course not only to comply with the law, but also to base our actions on ethical principles and a shared understanding of values. This creates a basis of trust among our employees, customers, shareholders and other stakeholders. Our compliance guidelines contain fundamental and binding rules for our behaviour within the company and towards our business partners, shareholders, customers, employees, stakeholders and society.

The guidelines focus on the topics of ethical guidelines, anti-corruption and antitrust law. The guidelines are publicised to our employees through various information channels, while the overarching guidelines are available to all interested parties on our website.

The establishment of a whistleblower system at the end of 2023 serves to ensure transparency and security. This can be used by all employees of our company at any time, even anonymously. Alleged violations of laws and internal company guidelines can be reported here.

Confidential treatment is guaranteed and it is ensured that nobody suffers any disadvantages within the company as a result of using the whistleblower system. The ombudsperson receives reports of compliance violations and forwards them to the internal compliance department.

## Safety at work

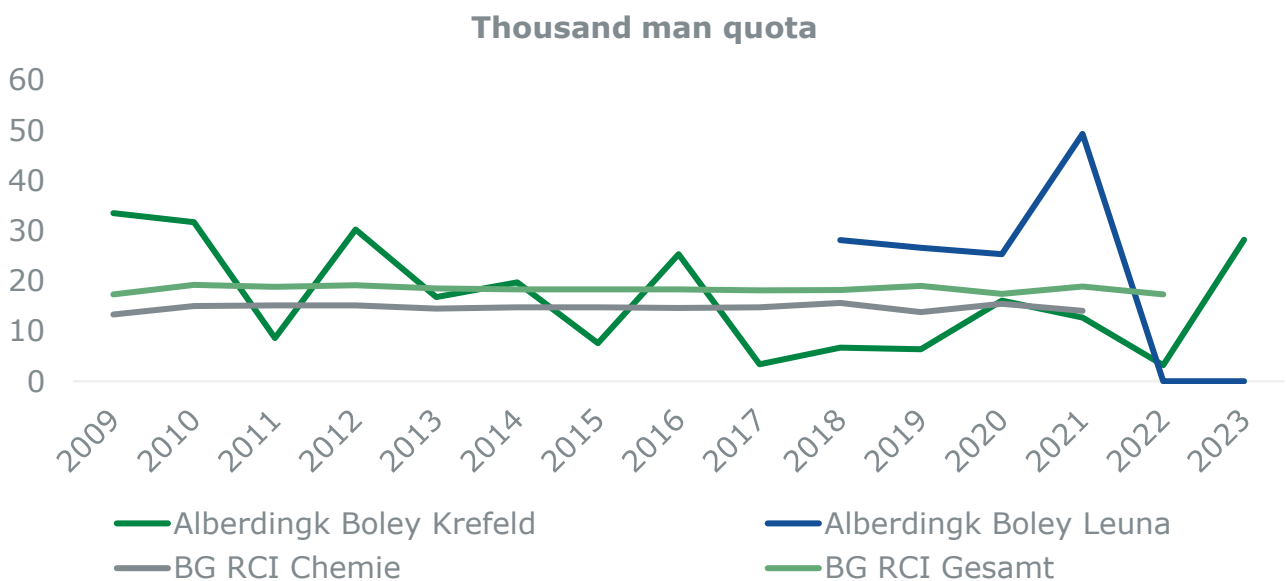
Volatility, spontaneous deviations from established standards and other human error are often the cause of dangerous situations and accidents. In order to sensitise employees to this, they are regularly informed about potential sources of danger, accidents and near misses.

Comprehensive instructions are also given at least once a year by line managers in the relevant areas of responsibility. Webinars and training courses are also held regularly, and fire safety training and first aid courses are also offered as examples for the numerous officer functions in the company.

Trained in-house safety specialists support our well-developed occupational safety concept and work closely with managers. This is particularly the case when carrying out risk assessments or projects.

In both areas, hazards are analysed as early as possible so that countermeasures can be taken. We always prioritise preventative occupational safety over reactive measures. During regular inspections, our specialists identify sources of danger with the aim of creating a safe working environment.

We have also had e-learning in our programme since 2020. Virtual seminars are assigned to employees individually for each working environment, depending on their area of responsibility. Participation in the training programme is mandatory for all employees. Following the online course, the programme provides test questions to check the newly acquired or refreshed knowledge.



The company has seen a steady decline in accidents at work since 2009. In 2023, however, there was a clear deviation from this downward trend. With 9 reportable incidents, the company reached a new high. These incidents were analysed in detail and it was determined that in 7 incidents, personal behaviour led to the accident in the first place. Since then, further analyses have been underway in the company to determine where this possible change in employee behaviour came from. We are working hard to counteract this negative trend with suitable measures.

Alberdingk Boley has also been certified in terms of its occupational health and safety endeavours and processes since 2013. In 2013, the 'Systematic Safety' seal of approval was awarded for the first time by the RCI employers' liability insurance association. This assessment also verified the requirements of OHSAS 18001:2007 are being implemented. The company has been certified in accordance with DIN EN ISO 45001 since 2022.

Since then, this certification has supplemented the existing integrated management system with the important component of occupational health and safety.

### **Health and safety at work**

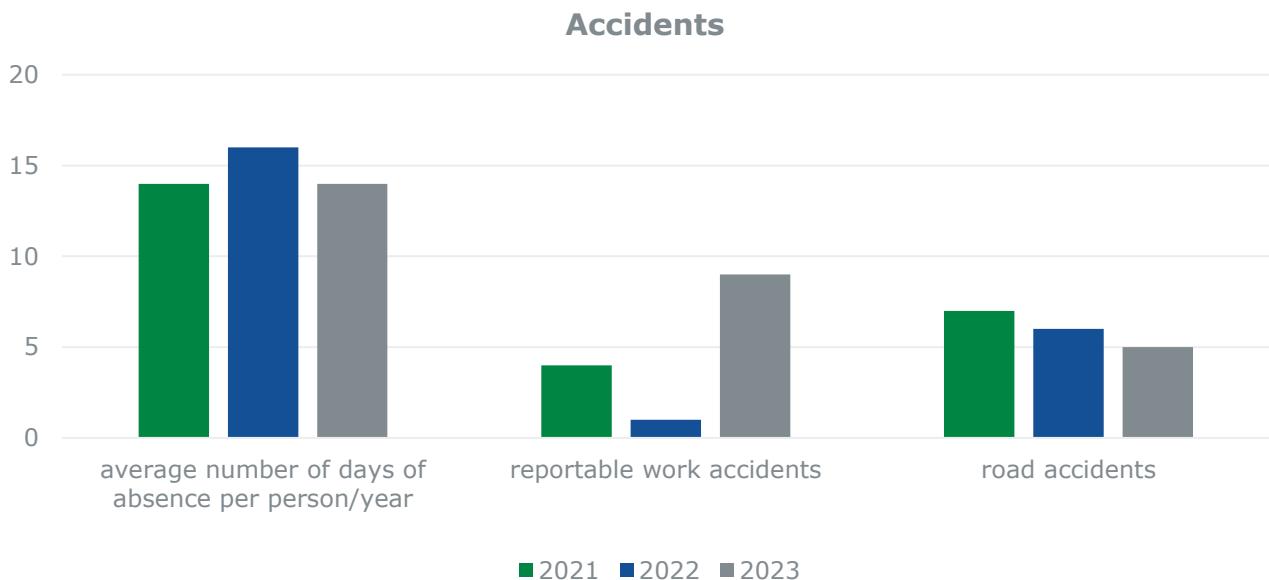
A wide range of protective measures and safety precautions serve to ensure the health of our employees in the workplace. These range from workplace risk assessments to the creation of operating instructions for hazardous substances as well as for machinery and equipment.

The organisation of first aid in the company is one of the company's basic obligations. The minimum number of first aiders in the company is prescribed by law, but it is important to us that we train more first aiders to ensure safety in the company.

This also applies to our fire protection and evacuation assistants. In both cases, we are aiming for a rate as close to 100% as possible. We have already achieved this in selected areas of the company in the area of fire safety and evacuation assistants. Regular and comprehensive training on the working environment is an important prerequisite for occupational health and safety.

In addition to basic instruction in the areas of occupational safety, fire protection and waste disposal, further individual and area-specific topics are also trained.

## Occupational health and safety at Alberdingk Boley GmbH



In addition, the company's Code of Conduct has been printed on handy cards to emphasise the importance of our key topic of occupational health and safety:

### VERHALTENSGRUNDSÄTZE ZUR SICHERHEIT UND ZUM GESUNDHEITSSCHUTZ

- Arbeitssicherheit hat Vorrang!**
- Jeder hat das Recht und die Pflicht bei einem unsicheren Zustand oder Zweifelsfall dies zu melden!
- Die Arbeit ist im Zweifelsfall so lange einzustellen, bis ein sicherer Zustand erreicht ist!
- Jeder ist Vorbild - betriebliche Regelungen werden eingehalten!
- Alle sorgen für Ordnung und Sauberkeit!
- Sicherheitswidriges Verhalten sprechen wir sofort an!
- Wir rennen nicht, konzentrieren uns und benutzen die Handläufe der Treppen!
- Gefährdungen beseitigen wir umgehend und melden sie weiter!
- Unsere Führungskräfte nehmen an den Sicherheitsaktivitäten und Schulungen persönlich teil!
- Unsere FKs informieren jeden Mitarbeiter umfassend über Sicherheit und Gesundheitsschutz!

**SICHERHEIT GEHT VOR - IMMER UND ÜBERALL!**

### VERHALTENSGRUNDSÄTZE ZUR SICHERHEIT UND ZUM GESUNDHEITSSCHUTZ

- Sicherheitsthemen sind erster Tagesordnungspunkt in allen internen Besprechungen!
- Führungskräfte bewerten regelmäßig die Gefährdungen und Schutzmaßnahmen!
- FKs und MA reden offen über alle Aspekte von Sicherheit und Gesundheitsschutz!
- Sicherheitsbeauftragte werden von ihren Vorgesetzten intensiv vor Ort einbezogen!
- Sicherheitsbeauftragte erhalten schnell Rückmeldungen zu ihren Anregungen!
- Vorgesetzte machen deutlich, was sie von ihren MA bei Sicherheit und Gesundheitsschutz erwarten!
- Vorgesetzte erteilen bei Sicherheit und Gesundheitsschutz klare Anweisungen!
- Fremdfirmen werden wie unsere Mitarbeiter regelmäßig informiert (Sicherheit und Gesundheitsschutz)!

**SICHERHEIT GEHT VOR - IMMER UND ÜBERALL!**

FK = Führungskräfte  
MA = Mitarbeiter

These cards were also handed out to all employees to show that occupational safety comes first, always and everywhere.

### **„SOS“-patrols 2023**

SOS patrols are unannounced inspections of work areas under the guise of safety, order and cleanliness and serve to document hazards and derive measures from them.

SOS patrols were also carried out in 2023. However, the overall rate of implementation varies greatly from area to area. In 2023, a new approach was also proposed by the safety officers. It is hoped the SOS patrols will also take place with participants from other areas in future.

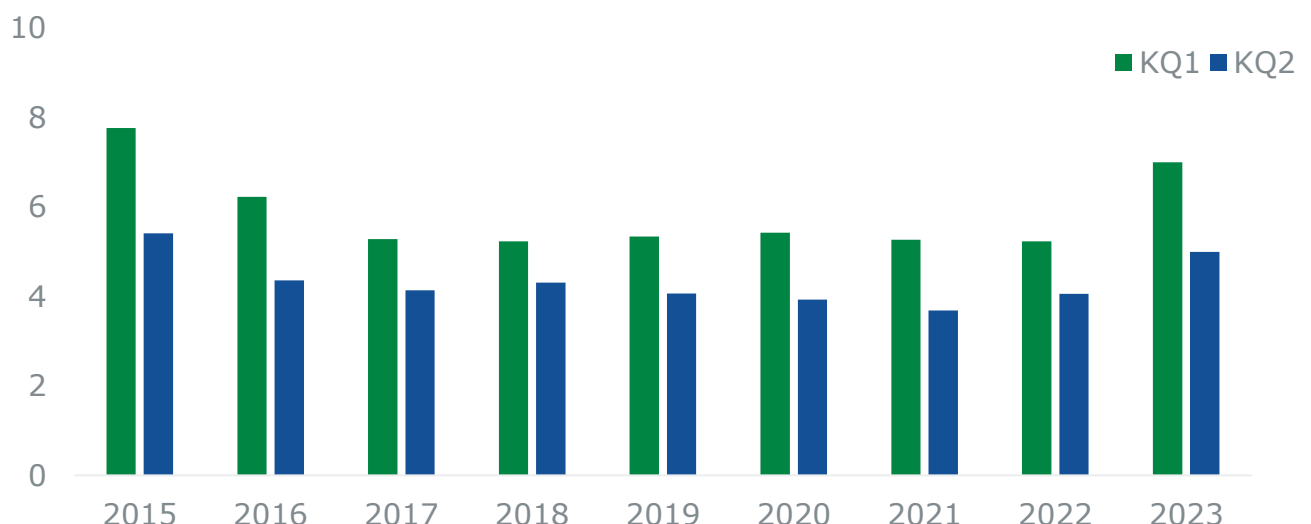
This concept is already being implemented in 2024.

### **Health protection**

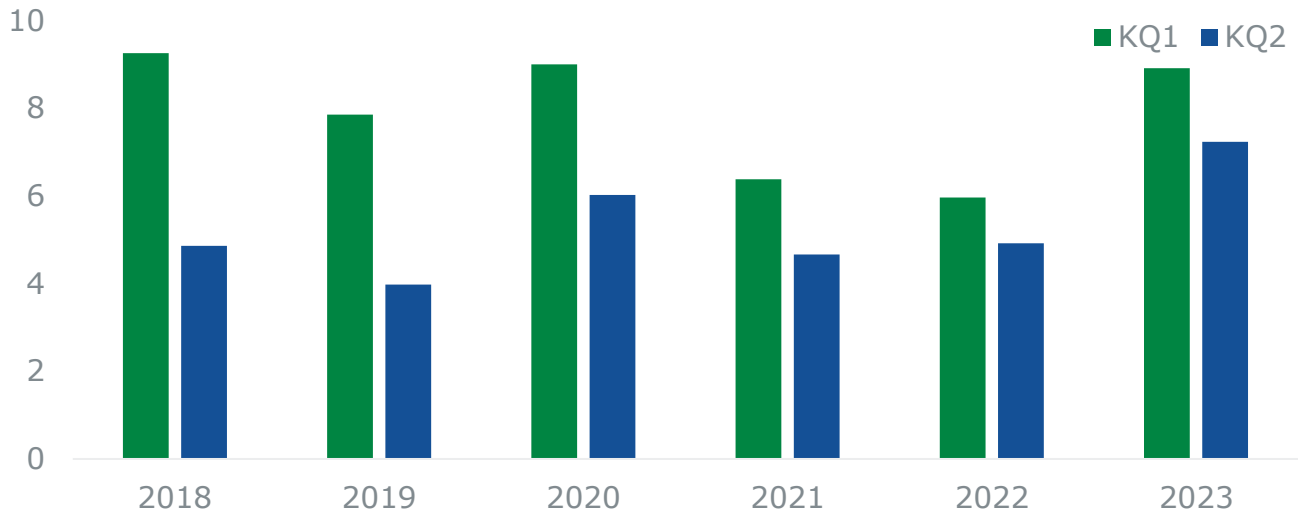
Due to the ongoing COVID-19 pandemic in 2021, the protective measures already successfully implemented for our employees were continued. By working from home and using digital exchange options, we were able to minimise contacts and protect our employees in the best possible way. We continue to ensure that coronavirus-positive colleagues remain in their home office if possible or, if not possible, do not attend work so the risk of infection is kept as low as possible.

Vaccination appointments were also organised and offered. In addition, employees were regularly informed about current internal measures.

**Illness rate Alberdingk Boley GmbH**



**Illness rate Alberdingk Boley Leuna GmbH**



To provide the best possible support in this increasingly digital working environment, the managers attended special training courses on 'Digital Leadership' and exchanged ideas in the context of digital exchange rounds for managers.

## **E-Learning**

In order to ensure that our employees receive complete and legally compliant training in occupational health and safety, a digital training tool is used in addition to the face-to-face training provided by managers.

The advantages of e-learning are that every employee can complete their training flexibly in terms of time and that it is finalised and checked by comprehension questions.

Managers and supervisors can also check at any time who has completed which training courses and where there may be gaps. The complete documentation of training activities takes place via the EHQS occupational health and safety software. This seamlessly records the qualification profile of each employee. We actively support employees in their training and further education. All training measures are recorded in a special training programme.

When refresher courses are due or instructions assigned to the workplace are due, the programme automatically reminds supervisors and employees. A traffic light system visualises which measures have been completed (green), are due soon (yellow) or are overdue (red). This ensures the employees' level of knowledge is and remains at an extremely high level.

## **Occupational safety outlook**

The focus of occupational safety endeavours is on further developing the safety culture. To this end, a management workshop was held in 2023 in which a strategy for further development and an action plan were drawn up.

This action plan comprises 37 points and will form the basis for successively promoting the existing safety culture from 2024.

## **Active and fit**

Our occupational health management (OHM) includes workshops for physical and mental fitness, seminars for stress prevention, driver safety training, vaccination programmes, courses for healthy eating and non-smokers-to-be.

We offer BGM courses and workshops both online and in person at our own premises.

A project group, our so-called health circle, determines the future measures. The project group is made up of members from management, the works council, occupational safety, production and HR. We involve health insurance companies, company doctors and professional trainers in the expert council. The BGM officers put the defined measures into practice.

## **Attractive employer**

We promote employees, value performance and focus on equal opportunities and family friendliness. Through training, personnel development and recruitment, we aim to attract professionally qualified employees who we deploy according to their skills.



Alberdingk Boley is a member of the corporate network „Erfolgsfaktor FAMILIE“. Collective labour agreements are negotiated with the NGG and the IGBCE. Our works councils are very committed and have a direct line to both employees and management.

## **Family friendliness**

Satisfied employees are worth their weight in gold. We offer different working time models for a more family-friendly work-life balance. For office work, employees have the option of working remotely two days a week.

Everyone has individual needs and we at Alberdingk Boley do everything we can to take the different needs into account in the best possible way and ensure that day-to-day business runs smoothly. Sports and wellness programmes are aimed at employees and their family and friends.

Applicants often compare Alberdingk Boley with large corporations in the chemical industry. For this reason, we take part in regional and nationwide competitions. In 2024, Alberdingk Boley was recognised as a family-friendly employer for the fourth time in a row by the Krefeld Business network.

### **Special benefits**

At Alberdingk Boley, we firmly believe that economic success and social responsibility should go hand in hand.

For this reason, we are committed to making a positive contribution not only through our business activities, but also through targeted financial support.

As part of our commitment to social responsibility, we are committed to supporting families. Specifically, there are the following voluntary special benefits, such as a subsidy of €160 for an employee's wedding, €110 for the birth of a child or €110 for an employee's silver wedding anniversary.

Our efforts to support employees and their families in special financial situations are in line with our values of care and solidarity. We are proud to make a positive contribution to the well-being of our employees and their families.

### **Shop and save**

To promote the local retail sector and support our employees, we have negotiated discounts for Alberdingk employees with numerous providers.

This also includes fitness centres, pharmacies, opticians and physiotherapists at the site. Employees can find out about current offers on the intranet.

In addition, we give employees and their family and friends access to further favourable conditions from more than 1,000 suppliers on the Internet shopping portal of the German Chemical Industry Association, of which Alberdingk Boley is a member.

The offer includes everyday consumer goods, travel and discounted memberships.

### **Outlooks field of action employees development**

We will continue to strive for sustainable growth in the future. We are exploring new ways to recruit new employees. We also use social media for this purpose.

We will continue to rely on our recipe for success from employee development, a mix of young newcomers and experienced experts.

## **3.5 Field of action social commitment**

Alberdingk Boley supports various social projects at national and international level. For more than a decade, for example, we have been supporting a mission house in the Indian state of Gujarat, the main growing region for castor oil seeds.

We make donations to the Don Bosco Snehalaya mission house almost every year, most recently totalling €15,000.



At a local level, we are committed to regional charitable organisations such as the Krefelder Tafel or the Stups children's centre.

One of our two managing directors is a volunteer treasurer at Stups. Members of our management team are members of the Rotary Club and the Lions Club and support social projects.

Since the outbreak of the Russian war of aggression in Ukraine, refugees have been living in the company's premises. Furniture, clothes, prams and much more have been donated by our employees, not only for our protégés from Ukraine, but also for other projects.

Whenever we call for aid campaigns, the willingness of our employees to volunteer is outstanding.

Many of our employees are also socially committed in their private lives.

### **Outlook for the area of social commitment**

We will continue to be socially committed as a company in the future. We derive measures from where help is urgently needed. We see it as our social duty to get involved wherever we can.

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