

Sustainability Report 2023

About This Report

Targets and Key Figures
Sustainability Strategy and Management
Compliance and Responsibility
Good Employer

Health and Safety
Environment
Products and Solutions
Sustainability in the Supply Chain
Social Engagement

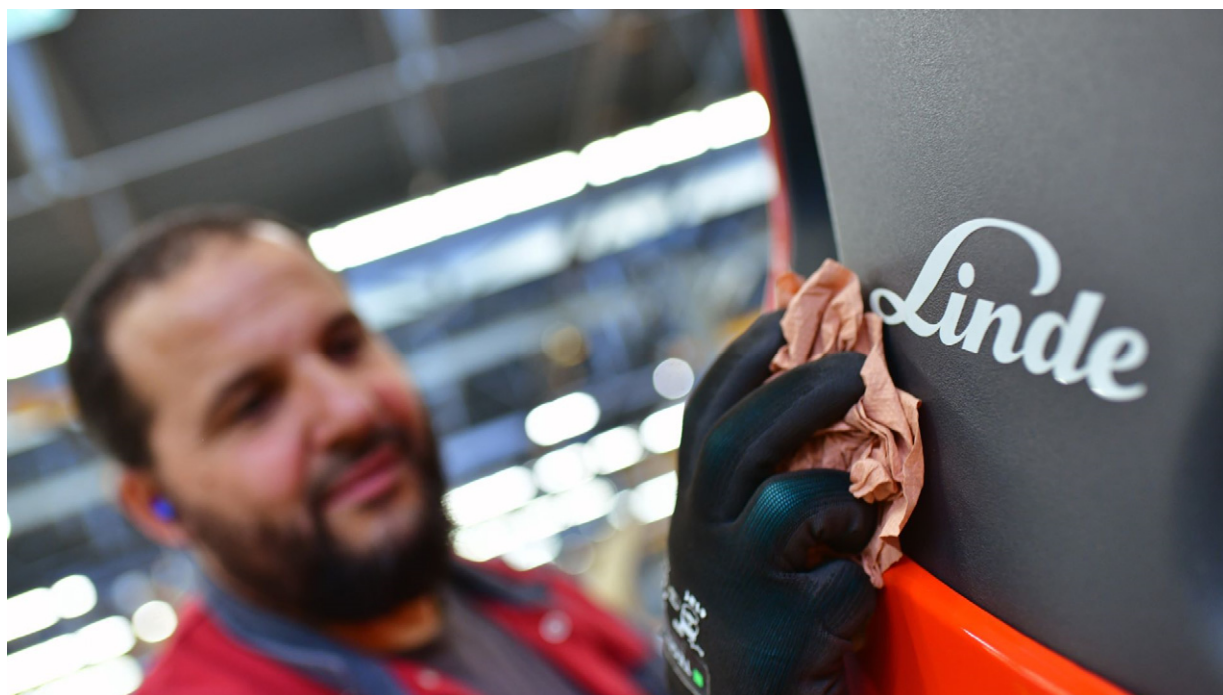
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ABOUT THIS REPORT



This Sustainability Report covers the sustainability activities of Linde Material Handling EMEA (“Linde MH” in this report) in the 2023 financial year. Linde MH, a KION Group company, is a leading global manufacturer of forklift trucks and warehouse trucks, and a solutions and service provider for intralogistics. With a sales and service network that spans more than 100 countries, the company is represented in all major regions around the world.

Since 2012, Linde MH has been working on a systematic and comprehensive sustainability strategy to address the current challenges facing the company and its stakeholders:

- Climate change and scarcity of resources
- The protection of human rights
- Health and demographic change
- Ensuring diversity and equal opportunities

This report presents the strategies, measures, objectives, and key figures that Linde MH uses to manage and measure its sustainability activities in the facts and figures section.

Reporting Period and Scope

The data and figures in Linde MH’s Sustainability Report 2023 relate to the 2023 financial year, covering the period January 1 to December 31, 2023. The content relates to the activities of all Linde MH consolidated companies in the EMEA region* (operating structure), based in 17 countries, and includes the plants as well as the sales and service companies.

*EMEA = Europe, the Middle East, and Africa

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Linde MH EMEA is part of the KION Group and a core brand within the KION ITS EMEA Operating Unit in the 2023 financial year.

As a fully consolidated subsidiary of the KION Group, Linde MH is subject to a separate non-financial statement pursuant to Sections 315b and 315c in conjunction with Sections 289c to 289e of the German Commercial Code (Handelsgesetzbuch, HGB), which is covered by the sustainability reporting of the parent company, KION. Based on the material issues of the regularly updated Group-wide materiality analysis, the consolidated non-financial statement forms part of the [KION Group Sustainability Report 2023](#). The independent auditor's report relating to a limited assurance engagement on the sustainability report in accordance with Section 315b HGB, Regulation (EU) 2020/852, and the standard criteria of the GRI (Global Reporting Initiative) is available on the [KION Group website](#). In addition, the KION Group's Sustainability Report 2023 meets the requirements of the SASB (Sustainability Accounting Standards Board) in accordance with the sector standard "Industrial Machinery & Goods" (version 2018-10) and the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures).

Collection of Data and Information

The key performance indicators (KPIs) in this report were essentially collected from 48 reporting units. The data for 13 production and administration locations (referred to as "plants") was collected individually, while 35 disclosure points for sales and service companies in some cases comprise aggregated data from several locations. Varying degrees of data-gathering aggregation are indicated wherever relevant, where in exceptional cases the data does not cover all employees or subsidiaries in the scope of this report.

The figures in this Sustainability Report have been rounded in accordance with commercial practice. This may result in differences between the sum of the individual amounts given in the tables and the overall totals stated, as well as between the figures stated in the tables and their analysis in the main text of the Sustainability Report. All percentage changes and KPIs were calculated based on the underlying data.

The data collection which provides the main basis for the KPIs presented in this report is supported across the Group by several internal reporting channels.

Forward-looking Statements

This report contains forward-looking statements based on the current plans, objectives, outlooks, and estimates of the management of Linde MH. The management cannot guarantee that these forward-looking statements will prove to be correct. The future development of Linde MH EMEA and its subsidiaries, and the results that are actually achieved, are subject to a variety of risks and uncertainties, which could cause actual events or results to differ from those reflected in the forward-looking statements.

Further Information and Resources

Further information on Linde MH's sustainability approach can be found on the company's website at <http://www.linde-mh.com/>

Further information on sustainability at Group level can be found on the [KION Group website](#) and in the [KION Group Annual Report 2023](#).

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Targets and Key Figures

TARGETS AND KEY FIGURES



Selected Sustainability-related Key Figures

All key figures and data can be found in the relevant chapters.

Environment	2023	2022	2021
ISO 14001 ¹ certification rate	94%	85%	81%
Energy consumption	1,107,453 GJ	1,079,340 GJ	1,143,040 GJ
Greenhouse gas emissions (Scope 1 and 2) ²	65,086 t CO ₂ e	63,286 t CO ₂ e	67,003 t CO ₂ e
Greenhouse gas emissions (Scope 3.3) ²	16,392 t CO ₂ e	15,626 t CO ₂ e	16,173 t CO ₂ e
Water withdrawal	146,211 m ³	140,942 m ³	153,409 m ³
Waste produced	38,529 t	63,664 t	34,136 t

Employees	2023	2022	2021
Percentage of female employees	18%	17%	17%
ISO 45001 ¹ certification rate	91%	82%	74%
LTI (Lost Time Injuries) ³	201	208	255
Accident frequency rate ⁴	8.9	9.5	11.9

[1] Or equivalent standards, based on all sites.

[2] Scope 1 and 2 market-based, Scope 3.3 location-based.

[3] Occupational accident with at least one day of absence.

[4] Occupational accidents involving active employees with lost time of at least one working day, per million hours worked.

Key Targets

Linde MH's sustainability targets are aligned with the key targets of the KION Group's sustainability strategy, which covers not just the individual measures taken by the organizational units but the efforts of the entire Group.

Group-wide Targets

Dimension	Field of action	Objectives	Target year
People	Occupational health and safety	Reduction of the accident frequency rate by 5% per year (based on the annual upper limit; in the long term: no occupational accidents)	Annual
		100% ISO 45001 ¹ certification rate (all sites)	2024
	Talent	Increase in employee satisfaction to an engagement score of at least 75 and a participation rate of at least 80%, as measured by an annual, global employee survey	2026
		No cases of non-compliance with the KION Group Minimum Employment Standards	Ongoing
Products	Product and solution sustainability	Development toward an electric-focused portfolio, 2027 including battery and fuel cell-powered products, by increasing the share of electrically powered trucks sold annually to 90%	
		Increase in the number of products with an available life cycle assessment	
		Increase in the number of products with cradle-to-cradle certification	
	Product and solution safety	Increase in the average number of selected safety features ⁵ per industrial truck to four	2027
Processes	Climate and energy	Absolute reduction in GHG emissions (Scope 1, 2, 3) in tons of CO ₂ e compared to 2021 ²	
		– Near-term Scope 1 and 2 by 4.2% per year Scope 3 by 2.5% per year	2030
		– Long-term Net zero Scope 1, 2, and 3 by 100%	By 2050
		Increase in the share of renewable energies used in own operations	

	100% ISO 14001 ¹ certification rate	2024
Circularity	Increase in the proportion of waste recovered in own operations	
Supply chain	EcoVadis score or equivalent rating ³ (corporate social responsibility performance) available for:	
	100% of strategic and high-risk suppliers ⁴	2023
	100% of direct suppliers	2025
Sustainable governance	EcoVadis Gold rating for the KION Group and evaluated subsidiaries	2027
	S&P Global Corporate Sustainability Assessment (CSA), KION Group score \geq 70 points	2027

[1] Or equivalent standards.

[2] Subject to resolution by the boards of KION GROUP AG expected in 2023.

[3] Group or site rating.

[4] High-risk suppliers in relation to industry and country risks in the area of sustainability.

[5] Number of additional safety features ordered by customers in addition to the standard device (deemed safe in accordance with legal requirements).

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Sustainability Strategy and Management

SUSTAINABILITY STRATEGY AND MANAGEMENT



Sustainability is firmly established in the “KION 2027” corporate strategy as an individual field of action. The KION Group takes a systematic, Group-wide approach to the operational implementation of its sustainability strategy and the underlying sustainability program.

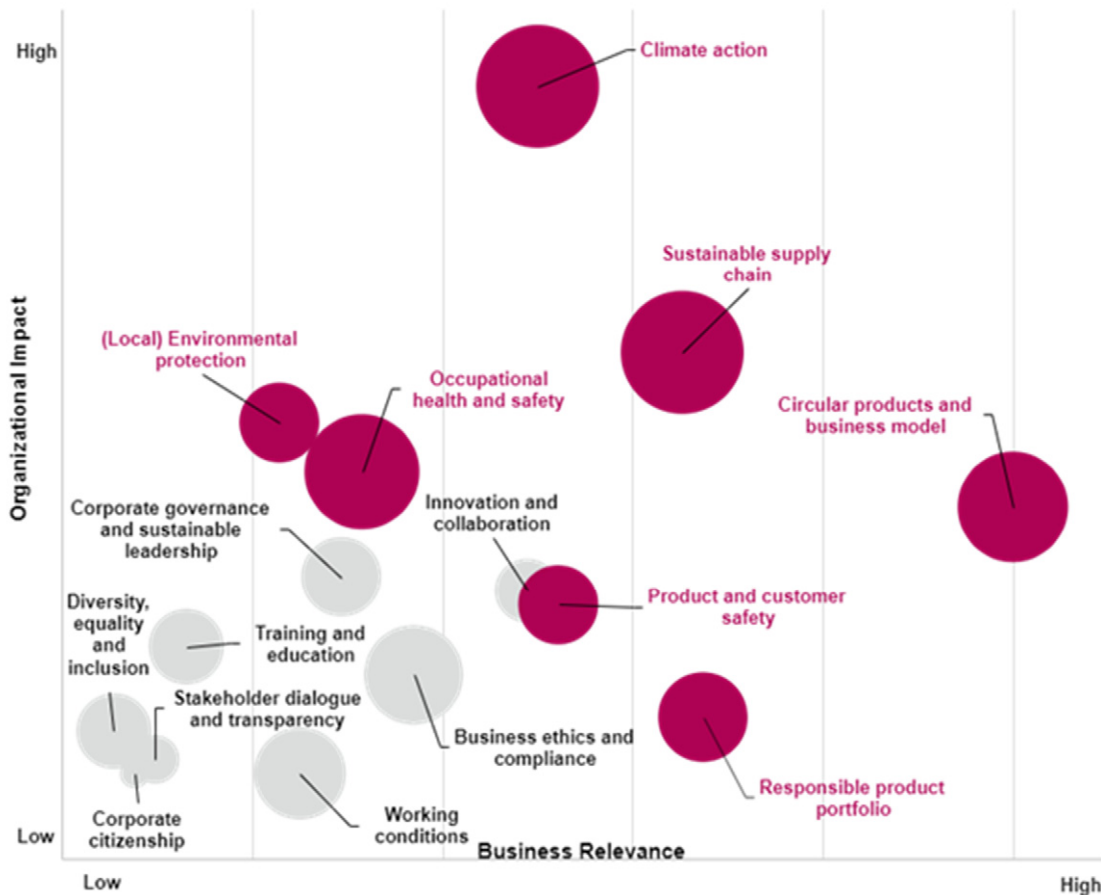
As part of the KION Group, Linde MH follows the Group-wide rules and principles for sustainable corporate governance. Sustainability criteria are also firmly integrated in the operational business by implementing company-specific guidelines and procedures. These include the sustainability policy, guidelines for integrated health, safety, and environment (HSE) management, and life cycle assessments, which reliably show the environmental impact of products and solutions.

Linde MH’s sustainability approach is based on the materiality analysis conducted by the KION Group. This assessment, which was updated in 2022, identifies and evaluates material issues that may be relevant to the Group—including with respect to the UN’s Sustainable Development Goals—and is based in part on the findings from global surveys of key stakeholder groups.

Topics are assessed with regard to their relevance to the KION Group from three perspectives: relevance to the business (outside-in, opportunities and risks for the Group’s business development), impact of the organization (inside-out, impact of the Group’s business activities on the environment and society), and relevance to stakeholders (importance with regard to the development and shaping of expectations and decision-making on the part of stakeholders).

Supported by the KION Group's materiality analysis, eight closely interlinked fields of action along the value chain were consolidated and developed further in the year under review. We are planning to review the materiality analysis again in 2024 in view of the upcoming entry into force of the new EU Corporate Sustainability Reporting Directive (CSRD).

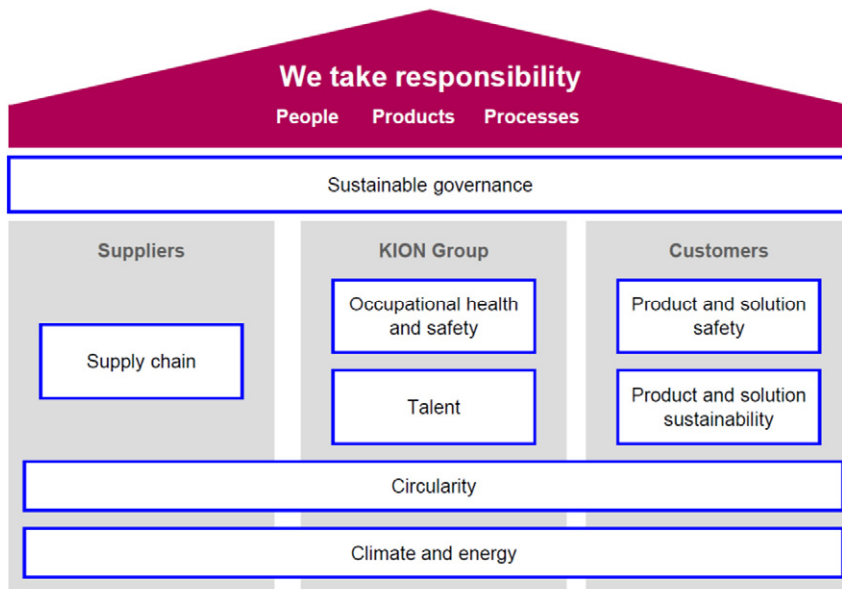
Group-wide Materiality Analysis



Guiding Principles and Fields of Action

At Linde MH, sustainability is linked to the wider-reaching targets and initiatives organized into the three strategic dimensions of people, products, and processes, always in keeping with the overall principle of "We take responsibility." These three dimensions provide the framework for the eight sustainability fields of action. In line with the KION Group's sustainability strategy and materiality analysis, Linde MH pursues a specific program of targets, initiatives, and monitoring within each of these action fields, in order to meet stakeholder expectations and ensure compliance with political and legislative requirements.

Group-wide Fields of Action



Company

Linde MH has a company history spanning over 120 years, including more than 50 years in material flow solutions. The Aschaffenburg-based company may have its origins in Germany but today it is one of the world's largest manufacturers of forklift trucks and warehouse handling equipment. As a technology leader in the industry, Linde MH offers a wide range of industrial trucks, automation, safety, and energy solutions, fleet management and warehouse management software, and comprehensive services. Linde MH has been part of the KION Group since 2006 and manages production sites in Germany, France, the Czech Republic, and Poland.

The company delivers top performance under even the most challenging operating conditions. Alongside its desire to produce high-performance drive systems, safety and user-friendliness are Linde MH's top priorities: Precise load handling, outstanding maneuverability, intuitive operation, and an ergonomic driver's workstation guarantee excellent handling performance and productivity. In addition, the trucks can be seamlessly integrated into fleet management or warehouse management systems using wireless data transmission and digital interfaces. Combined with comprehensive energy, safety, and automation solutions and optimal integration into customers' business processes, this results in holistic solutions for networked, safe, and sustainable intralogistics.

In the field of electromobility, Linde MH is currently the only manufacturer to offer electric counterbalanced forklift trucks in the form of its X models. With their strong performance and robust design, these models offer a powerful alternative to trucks equipped with an internal combustion engine. Customers can rely on the quiet and practically emission-free drive technology to handle even the most challenging of applications without compromising on performance.

With a large rental fleet of almost 43,000 trucks, Linde MH offers a high level of flexibility, whether customers want to take advantage of the various options available to them—leasing, long-term rental, or hire—or prefer to opt for a used Linde forklift, all of which are refurbished in accordance with standardized specifications throughout Europe.

Sustainability Organization

Linde MH follows the systematic approach of the KION Group for the operational implementation of its sustainability strategy. We define strategic sustainability targets that are concrete and quantifiable as well as the main levers and relevant KPIs for each of the eight fields of action. These are defined in further detail and implemented within the scope of comprehensive programs of measures (for further information, see the [KION Sustainability Report 2023](#)). The revision of the individual targets, further breakdowns, and the corresponding measures are reviewed on an ongoing basis. As part of this process, they are also aligned with external requirements, the fields of action, and internal stakeholders at Group level and in the Operating Units.

The leads for the individual fields of action and the regional sustainability coordinators in the KION Group work together with central sustainability management as part of a steering committee. Together, they ensure that the sustainability program is consistent across the Group, continually enhanced, and implemented. The KION Group's central sustainability management team is also responsible for managing and coordinating the sustainability program across the Group, defining sustainability KPIs, and tracking progress towards strategic targets and targets within the action fields. It ensures coordination between the individual fields of action and Operating Units and within the Group. It also provides specialist support internally and externally where necessary.

Progress is monitored regularly, both at Group level and within the Operating Units (for example, as part of steering committee meetings), and reports are issued to the KION Group AG Executive Board. As of May 1, 2023, a new Board member—the Chief People and Sustainability Officer—took over the area of sustainability in addition to the tasks of Labor Director.

Initiatives

The KION Group committed to the objectives of the Science Based Targets initiative (SBTi) in 2023. As part of this commitment, it set itself the long-term climate target of achieving net-zero greenhouse gas emissions along its value chain by 2050. Key interim targets have been set for 2030 (see targets in the [KION Sustainability Report 2023](#)). Linde MH thus has a basic methodological framework for its climate action and is committed to the target of limiting global warming to 1.5 °C above pre-industrial levels, which was adopted at the United Nations Climate Change Conference in Paris in 2015. The climate management targets are to be developed further in 2024 in accordance with the SBTi criteria.

As a supplier, Linde MH has been regularly assessed and certified in relation to its corporate responsibility by the independent service provider **EcoVadis** since 2012. In the certification conducted at the end of 2023, Linde MH obtained scores that were far above average in all four evaluation categories. This puts it among the top one percent of all companies participating in the ranking, with Linde MH also achieving higher scores in the “Ethics” and “Sustainable Procurement” categories than in the previous screening. The analysis system on which the rating is based comprises 21 criteria from the four thematic areas of environment, labor and human rights, ethics, and sustainable procurement. The methodology is premised on international sustainability standards—such as the Global Reporting Initiative, the Conventions of the International Labour Organization, the UN Global Compact, the UN Guiding Principles on Business and Human Rights, and the ISO 26000 sustainability guideline.

Linde MH is also a partner of the sustainability initiative **Blue Competence**. This initiative of the Verband Deutscher Maschinen- und Anlagenbau e.V. (German Mechanical Engineering Industry Association) aims to promote sustainability in mechanical and plant engineering and raise awareness of sustainable solutions in the industry. As part of this partnership, Linde MH has committed to upholding the 12 sustainability principles of mechanical and plant engineering.

The Bavarian Environmental and Climate Pact is another initiative that Linde MH is supporting with qualified environmental efforts. Participating companies are committed to conserving resources and using environmentally friendly technologies to achieve “green economic growth.” To this end, topic-specific working groups have been formed to formulate goals and make recommendations for implementation. The working groups are supported by external experts where necessary. Linde MH has recently been awarded the Pact certificate, which is valid for three years.

Compliance and Responsibility

COMPLIANCE AND RESPONSIBILITY



The KION Group is responding to the high expectations of the capital market, customers, employees, and other stakeholders with its company values of integrity, collaboration, courage, and excellence and the principles of the Group-wide KION Group Code of Compliance (KGCC).

As part of the KION Group, Linde MH shares these values and is committed to full compliance with all applicable legal regulations, guidelines, and codes of conduct. Linde MH's comprehensive compliance management system is based on the KGCC, which defines guidelines for ethical, value-oriented, legally compliant conduct in business. The KGCC also provides a binding framework for engaging with colleagues, customer and partner companies, and the public.

As a German company, the KION GROUP AG is primarily subject to German law. At the same time, the KION Group is required to comply with the respective national laws at its locations. In the event that these national laws deviate from German law, the KGCC defines the procedure to follow within the Group. The point of contact in any case of legal doubt is the Compliance or Legal department.

The KGCC is available in 24 languages and is updated as required, with new topics and focus areas added to reflect the current legal situation and the current circumstances in the company. External parties can view the [KGCC](#) on the KION Group website.

Responsibility for the Group-wide compliance management system lies with the Executive Board of KION GROUP AG. The Chief Compliance Officer leads the department and, together with the Compliance team, is responsible for further developing the compliance management system, providing advice and information on compliance issues, resolving cases of non-compliance, and providing appropriate training. Each Operating Unit has a full-time Compliance Officer who reports directly to the Chief Compliance Officer and supports the management of the respective Operating Unit with the implementation of compliance requirements. Local and regional compliance officers ensure that the activities in the subsidiaries comply with the law and regulations.

Effective Compliance Management System

The effectiveness of the compliance management system is continually reviewed and refined. The system is based on the model of the IDW PS 980 auditing standard of the Institute of Public Auditors in Germany, and focuses on preventing compliance violations. The anti-corruption section pursues the aim of preventing, detecting, tracking, and penalizing corruption within the company. As part of its regular checks and short-notice audits, the Group Audit department checks adherence to the compliance requirements in KION GROUP AG and its consolidated subsidiaries.

As in previous years, work continued in 2023 in the areas of anti-corruption, data protection and IT security, foreign trade and export control, combating money laundering, fraud prevention (particularly in cybercrime), D&O liability, and the responsibility borne by the executives. Anti-discrimination, whistleblower protection, and fostering a speak-up culture—or company culture in which questions and concerns can be openly expressed—were also focal points in the year under review.

The KION Group expressly supports the fight against all forms of corruption and bribery. To this end, it follows the approach of “prevent, detect, respond.” No confirmed cases of competition or antitrust violations were recorded in the reporting year. There were also no confirmed cases of active corruption by employees.

Number of confirmed corruption incidents:

2023	2022	2021
0	0	0

Multiple Reporting Channels

Actual or suspected violations can be reported in person, by phone, mail, email, or via an online form. All KION Group employees—as well as external stakeholders—can report potential compliance violations around the clock via an online form and a dedicated hotline, anonymously if they wish. The whistleblowing system is available worldwide, but is tailored as closely as possible to local conditions. The integrated case management system is designed to ensure that all incoming information is reviewed and that each individual case is processed systematically in line with the provisions in the EU Whistleblowing Directive. This system guarantees confidentiality and protection against retaliation.

The KION Group Compliance Committee is a cross-functional body made up of executives from the Corporate Compliance, Internal Audit, and Legal departments. This committee oversees the processing of reports of potential breaches and related investigations and confers on sanctions in the case of identified compliance violations.

The Compliance Committee of Linde MH in Germany provides employees with another independent point of contact that they can turn to when seeking advice or reporting potential violations. If anyone experiences or observes discrimination or harassment, they can get in touch with their responsible committee—and it goes without saying that this is in complete confidence. Similar bodies exist throughout the EMEA in accordance with national regulations. Compliance representatives are available to provide assistance at any time in all countries where Linde MH operates.

All reported suspected cases are systematically reviewed and any detected violations are investigated using effective control measures, for example regular or special audits. Any cases of misconduct are subject to disciplinary action. If necessary, the compliance management system is adjusted to prevent future violations.

Number of reports in connection with the whistleblowing procedure:

2023	2022	2021
33	57	55

Training

As well as clear guidelines, there is also a wealth of information and a wide range of advisory services and training courses available. Through the work of compliance officers and representatives, Linde MH ensures that staff are always kept fully informed and up to date about all compliance-related issues and are aware of the importance of acting in line with the company's values. All new employees of the KION Group are required to complete mandatory training on the KION Group Code of Compliance—either via e-learning or, for employees who do not have a work PC, via in-person training. In addition, employees whose work is critical to compliance, for example those in Sales and Procurement, regularly receive targeted live training.

Training conducted on business ethics issues:

In-person training (KION Group Code of Compliance, anti-corruption, anti-discrimination, conflicts of interest, whistleblower protection, speak-up culture)

E-learning courses: KION Group Code of Compliance

E-learning courses: Preventing Corruption in the KION Group—the General Rules of the ABC Policy

E-learning courses: Professional Conduct at KION: Respect in the Workplace

E-learning courses: Preventing Money Laundering and Fraud at KION

E-learning courses: Avoiding Conflicts of Interest at KION

E-learning courses: KION Group—Preventing Anti-competitive Behavior

E-learning courses: General Data Protection

E-learning courses: Information Security Employee Awareness Training

E-learning courses: Role of Unconscious Bias in the Workplace

E-learning courses: Speak up—We’re Listening

The aim of this program is to provide all KION Group employees with regular training on the most important topics (anti-corruption, avoiding conflicts of interest, antitrust and competition law, anti-money laundering, whistleblower protection, data protection, IT security, and human rights). Changes in legislation or internal regulations are also incorporated into in-person training courses, as are any new findings from the compliance management system. The training program was expanded in 2023 to include an e-learning course on unconscious bias, speak-up culture, and whistleblower protection. Following on from this, employees without access to a PC will receive in-person training on KION’s whistleblowing channels and whistleblower protection in 2024, specially designed for the target group.

Percentage of total workforce trained in business ethics issues:

2023	2022	2021
76%	100%	98%

Compliance Audit of Business Partners

Before KION enters into a new business relationship, external business partners must be assessed and appropriate documents must be provided. The business partner's economic background is checked and it is determined whether there are any other reasons not to establish a business relationship, for example because the business partner is on a sanctions list or there have been negative reports about them. In case of doubt, KION may refrain from doing business with this partner. KION also audits external partners based on a risk assessment.

The basic inspection is carried out using the business partner tool, which is managed by Corporate Compliance. The process involves checking customers and suppliers for certain indicators based on compliance lists. Corporate Compliance is responsible for performing this check against the relevant lists, as well as for evaluating the results and instigating any necessary measures. For external sales partners with a higher risk of corruption, such as dealers, importers, distributors, agents, or integrators, a multi-stage due diligence assessment is carried out by the responsible compliance officer before establishing the business relationship. In addition to identifying potential risks in the relevant country based on subindices from reputable international organizations, this assessment obtains information from the sales partners via due diligence questionnaires, through audits conducted using the business partner tool, and/or via external due diligence providers. The results of the due diligence assessment are subsequently communicated to the responsible teams—for example, senior management—along with any recommended actions, such as tighter contractual terms including a right to audit clause or additional monitoring of payment streams.

Periodic Risk Analysis

As part of a systematic analysis, the KION Group records and evaluates corruption and bribery risks on a regular basis throughout the Group. Money laundering, tax compliance, cybersecurity, and human rights risks are also assessed, as are the risks of non-compliance with competition laws. Non-financial risks that arise on an ongoing basis are screened, evaluated, and managed. Adequate measures are subsequently derived to eliminate both process and control weaknesses. The characteristics of the corruption perception index for the respective country, the size and structure of the local procurement or sales organization, and contact with public officials play an important role in the risk assessment. This analysis has already been completed for all Linde MH subsidiaries. There continued to be no significant compliance risks.

Percentage of all operating sites for which an internal audit/risk assessment has been conducted for business ethics issues:

2023	2022	2021
100%	100%	100%

Data Protection and Information Security

Data protection and information security are top priorities at Linde MH and are governed by guidelines applicable to the entire KION Group. The Data Protection Policy aims to implement technical and organizational measures to protect personal data, while KION's Information Security Policy focuses on safeguarding the confidentiality, integrity, and availability of information with the objective of protecting the KION Group from related attacks. A range of Group works agreements and mandatory standards on topics such as IT security in the workplace and the management of IT systems, email, and the Internet are also in place. Samples and templates for the day-to-day handling of personal data and sensitive business information are also available. The Operating Units are responsible for implementing the central requirements. Those responsible for data protection and its coordination in the individual subsidiaries report to their respective management. At Group level, the Group Data Protection Officer reports to the Chief Compliance Officer, and the KION Group Chief Information Security Officer reports to the KION Group's Chief Information Officer who reports to the Executive Board of KION GROUP AG.

Protecting sensitive, personal data is also an important responsibility, so secure and effective processes and systems have therefore been put in place to protect this information and ensure compliance with the relevant legislation. All staff are given training and receive regular updates via the Group intranet to ensure that they understand and remain up to date with basic data protection principles, their reporting obligations, and the Group-wide compliance reporting system.

There were around 63 million attacks on the KION Group's IT network during the year under review, all of which were averted. An important factor in this success is the continuous scanning for vulnerabilities across the entire IT and operational technology infrastructure. Regular training on IT security issues, global anti-phishing campaigns, a monthly video series published on the Group intranet, and instructions for keeping IT infrastructure secure also play an important role in maintaining IT security standards.

Information Security Management System

At the end of 2022, KION started implementing an information security management system (ISMS) to ensure that sensitive information remains protected and the Group maintains its competitive position in the industry. The KION Group ISMS is based on ISO 27001 requirements (establishment, implementation, maintenance, and continuous improvement of documented security management processes) for the entire Group. A documentation framework has been established that sets out the requirements for information security.

In this context, the KION Group regularly analyzes potential or existing risks to information security. Where the risk analysis identifies an IT security risk or where there is deviation from a KION Group security standard, the risk is described and appropriate action is set out. Once the residual risk has been assessed, the risk owner decides on whether to accept the residual risk. It must then be reassessed regularly and safeguarded by means of renewed risk acceptance.

The Group Audit department regularly carries out special IT audits, which also cover information security.

In June 2024, the KION Group divisions responsible for the development, provision, and operation of its cloud-based fleet management systems obtained the ISO 27001 certification. The certified companies at Linde MH are Linde Material Handling GmbH and Linde Material Handling Ibérica, S.A.U. in Spain. TISAX¹ audits were conducted at the KION Group headquarters in Frankfurt am Main, Linde Material Handling headquarters in Aschaffenburg, and Willenbrock Fördertechnik GmbH in Bremen (also a Linde MH company) in 2023. In each case, these companies were found to be at a high degree of readiness in the first assessment, and the TISAX label was granted without conditions. As part of this assessment, the auditor had to be provided with around 200 different pieces of evidence, including information security standards, standard operating procedures, security concepts, and KPIs. In addition to the work underway at other sites that are set to be included in the ISMS scope in the course of the year, the spotlight will now be on maintaining this high level of information security that has been attained. Finishing touches to the safety concept will consist of ensuring that the building blocks of the system run smoothly in day-to-day business, for example, by conducting regular internal audits and reviews, managing information security risks, and planning and implementing improvements.

Number of confirmed information security incidents:

2023	2022	2021
0	1	0

Footnotes:

[1] TISAX® is a cross-company assessment and exchange mechanism for information security in the automotive industry. The aim is to protect data and its integrity and availability in the manufacturing process and in the operation of trucks.

Good Employer

GOOD EMPLOYER



Teamwork plays a central role at Linde MH. Our employees tackle their tasks together based on a groundwork of solidarity, mutual trust, and a strong sense of team spirit. They openly share their ideas so they can find the best solution for customers in every situation. Equality is a key aspect, as the company's values are the foundation on which all employees enjoy fair and equal treatment. The company always pursues its activities as a business in accordance with ethical, sustainability, and compliance standards, which are based on the values of Linde MH and the KION Group.

The Group-wide HR principles are governed by regulations and include minimum standards for employment as well as guidelines for diversity. They also guide HR activities, such as the design of training and development programs, career opportunities, employee surveys, and employee share plans. The KION Group Code of Compliance provides the framework for legally compliant and ethical employee behavior.

The minimum standards that have been defined for the entire company group are based on the core labor standards of the International Labour Organization. These standards ensure freedom of association and the right to collective bargaining. They prohibit forced or compulsory labor and child labor as well as discrimination in employment or occupation. They also represent the core human rights that KION is committed to respecting. Furthermore, the KION Group is committed to high standards of occupational health and safety worldwide as well as a level of remuneration that is in line with national industry standards and in any case ensures a living wage. As in previous years, no violations of the minimum employment standards were reported in 2023.

A Great Place to Work

As a top employer, Linde MH offers an exciting working environment, excellent international career opportunities, and attractive remuneration. Interesting projects, long-term prospects, strong team spirit, and a wide variety of development opportunities motivate employees to give their best day in, day out. Diversity also plays a key role here. At the same time, Linde MH knows that there is room for improvement, including when it comes to work-life balance.

Flexible Work Organization

The ability to work efficiently and flexibly from anywhere promotes a healthy work-life balance. There has been a works agreement on teleworking in place for German sites since 2012 and on mobile working since 2022. The regulations are very flexible in order to meet the different needs of employees as well as those of internal and external customers.

Mobile working at Linde MH is organized differently depending on country-specific requirements and regulations. Fenwick-Linde in France, for example, has a collective agreement on teleworking and a flexitime scheme with the option of taking half a day off per month. In addition, employees can access psychological support from an independent expert. People with disabilities get an extra day off and parents are entitled to leave when their children are ill. There are similar agreements in place in the UK, and these are set to be expanded in the future. Parents of children up to the age of eight and carers can apply for leave days under a collective agreement. During the summer vacation, the company offers funded childcare.

In Germany, all employees at the headquarters and the production site in Aschaffenburg-Nilkheim have the option of registering their children aged between 3 and 12 with the “Sommerkinder” (Summer Children) program during the Bavarian summer vacation. A varied program of activities, including field trips, is offered for the children throughout the vacation period from 7:30 a.m. to 5:00 p.m. and is supervised by educational professionals. The flexible booking options during the vacation make parents’ lives a lot easier and help them to balance their work and family life. The costs are borne by the former recreation allowance, so only the children’s meals need to be paid for by the parents themselves.

To support a healthy work-life balance, Linde MH Germany is committed to the following principles, among others:

- “We encourage part-time work.”
- “We offer flexible working hours.”
- “We prioritize family-friendly meeting times.”
- “We grant leave during school vacations.”

In addition, a co-creation office space planning concept with desk sharing was introduced at the central site in Aschaffenburg in the year under review. The aim of this concept is to create a modern working environment that meets the operational requirements for the space. These range from focused content development tasks to interdisciplinary idea-sharing sessions driven by inspiration and creativity. The aim is also for the office to become even more of a place where employees can socialize and learn from each other.

Compensation and Additional Benefits

The entire workforce is compensated fairly in line with market conditions and performance. Compensation is reviewed annually and adjusted as necessary to reflect individual performance and qualifications as well as potential changes in conditions. Linde MH compensation models vary depending on national labor market conditions and legislation.

Employees with a collective bargaining agreement:

2023	2022	2021
73%	73%	68%

Collective agreements govern wages and salaries in many countries and for large parts of the workforce. Minimum wage requirements are observed in all cases. As many employees are highly qualified, however, remuneration is usually significantly higher than the prescribed level. Depending on local conditions, compensation may be supplemented with additional benefits, such as pension, insurance, and healthcare plans.

The principle of equal pay for equal work applies, irrespective of gender. Equal pay is regularly assessed at Linde MH. For example, Linde Material Handling Schweiz AG has been awarded the Fair-ON-Pay+ certificate. The Fair-ON-Pay process uses the equal pay analysis tool Logib, which is recognized in Switzerland, to determine whether the current Swiss requirements for equal pay are being met. The results are supplemented with clear and meaningful evaluations and concrete recommendations for specific improvements.

Although Linde MH faces significant challenges, particularly due to the global procurement crisis, the company was able to implement an enhanced production program in the 2023 financial year thanks to the comprehensive measures it has taken to improve material supply and secure supply chains. In recognition of employees' hard work and commitment, the company currently offers a monthly voucher and a performance bonus in addition to the regular salary.

Psychological Support

In times of significant social upheaval, personal and professional problems can also multiply. These are increasingly being reflected in the workplace, but can rarely be solved there. The issues range from excessive debt, personal stress, grief, and addiction on the one hand to burnout, mental underload, professional conflicts, and a loss of work-life balance on the other.

The Employee Assistance Program offers all employees in Germany professional help in almost all circumstances by telephone, online, and in person. This service is available in various languages, around the clock, and 365 days a year, and all employees can use it anonymously without the company being informed. Linde MH covers the costs of the advisory service.

In addition, a "Stressless" toolbox comprising various measures was created in the year under review to support employees in their everyday lives. Including everything from information on what causes stress and guidance on how to reduce it to extensive seminar and advisory services, these measures help employees to approach their duties with a cooler head, to find resources they can draw on, and to reduce stress. Managers are also supported in this area: An external service provider held a series of informative presentations for executives in 2023 with the aim of improving their health knowledge so that they can recognize early warning signs in their colleagues and act accordingly as well as supporting them in reducing mental stress. A crucial aspect is focusing the conversation on employees as an important part of the company to ensure successful collaboration in all matters and to protect employee health.

Feedback

Employees usually receive feedback on their work primarily from their supervisor. However, 360° feedback at Linde MH also includes the perspective of colleagues and—in the case of executives—their employees by involving these individuals in a structured process as feedback providers.

Percentage of employees across all sites who have received regular performance and career development reviews:

2023	2022	2021
86%	85%	87%

Constructive Collaboration

The Linde MH management and works council meet regularly to discuss day-to-day matters. The European Works Council, which represents the interests of the workforce across the EU on cross-country issues, holds regular meetings with the KION Group Executive Board. The aim of these meetings is to establish a cooperative relationship with trade unions and those representing the interests of employees.

Sites where local employee representation exists for more than 75% of the workforce:

2023	2022	2021
56%	59%	52%

In addition, as a further transparency measure by Linde MH, “campfire” meetings take place every six months. These meetings provide a confidential, protected space where employees can ask questions, express opinions, and also raise concerns to a member of the management.

The KION Group also conducts the KION Pulse global employee survey once a year. Overall, 80% of all employees took the opportunity to provide their feedback in 2023. The results help the company to ensure that it is taking the right action to further improve employee engagement and motivation, which in turn ensures sustainable growth for the Group.

Training and Further Development

Employee development is a top priority in Linde MH's HR strategy. Group companies cooperate closely on talent management matters and on training and development programs. The Organization Capability Talent Review (OCTR) process supports this goal. OCTR is an integrated process of performance, talent, and succession management that supports all employees throughout the company.

The identification and development of talent and succession planning enables the Group to offer employees more opportunities for further development. The development programs cover all employment groups and include everyone from talented junior staff to experienced executives.

Numerous courses on methodologies, foreign languages, and specialist topics are offered as part of these programs, and are designed to help employees quickly and efficiently adapt to new requirements. Linde MH is also preparing to roll out Workday's new training functionalities. The online tool will give all employees access to courses, videos, and files, as well as their own learning history, and will allow them to suggest new topics.

Percentage of employees at all sites who have undertaken professional or competence-based training or further development:

2023	2022	2021
98%	100%	100%

Diversity

Diversity, equality, and inclusion are an integral part of HR work at Linde MH. Everyone deserves the same opportunities to realize their potential and grow professionally. It is important to respect the dignity of all people and to value employees regardless of gender, sexuality, ethnic or religious affiliation, age, cultural background, or other characteristics. Rules and guidelines have therefore been established that make it clear that discrimination, bullying, and harassment have no place in the company. Misconduct is always sanctioned, like any other violation of the KION Group Code of Compliance. This approach is in step with the values of "courage," "integrity," and "collaboration," which are crucial to ethical action in the entire company group.

Anyone who experiences or observes discrimination, bullying, or harassment is encouraged to contact the Linde MH Compliance Committee. This independent body receives and investigates reports and provides support and assistance to anyone affected. Its main aim is to create a "speak-up culture" for all employees, leaving no room for discrimination. All employees are encouraged to report incidents and stand up for each other.

The Compliance Committee supports and advises employees concerned throughout the processing and investigation of the report as well as after this process has been completed (for example, by arranging psychological support). The committee maintains regular communication with the HR department throughout the process. It recommends disciplinary measures where necessary and coordinates communication and any training measures. This topic is also addressed during annual mandatory compliance training on respect in the workplace and measures combating discrimination and harassment.

Total discrimination incidents:

2023	2022	2021
0	0	0

The elected works council is also available to support those affected or to help them assert their rights. Of course, the official KION Group reporting channels are also available to all employees. These include the anonymous whistleblowing hotline.

Linde MH employees came together in Aschaffenburg during a day of action to form a human chain as a symbol of respectful cooperation in everyday working life. They also signed a truck from the yard fleet that had been painted with the word “respect” as part of the event—and this truck has been visibly present at the plant ever since.

Awareness Month

As a cross-functional committee at the KION Group made up of executives from all Group companies, the remit of the Diversity & Inclusion Council is to define, implement, and review the success of sustainable measures aimed at promoting diversity, inclusion, and equality. One of its first measures is Diversity & Inclusion (D&I) Awareness Month. Throughout this month, the main focus is on celebrating differences, creating an inclusive and respectful workplace culture, and supporting justice and fairness for all. All employees are invited to get involved and to learn more about the topic—whether that is by attending the keynote presentations rolled out worldwide or by participating in one of the many local activities organized—or even by arranging an activity themselves. All participants are also encouraged to share their experiences and ideas with their colleagues on social media using the hashtag #KIONisdiverse.

Various activities took place as part of the awareness month in June 2023 at Linde MH in the Aschaffenburg plant and at the KION Group head office in Frankfurt. For example, apples engraved with the D&I logo were given out with an invitation to attend a “blind date.” The aim of the blind date was to give all employees the opportunity to speak to colleagues they had never met before during their breakfast or lunch break. Initiatives like these are welcome as they encourage more openness and diversity in the company.

Increasing the Proportion of Women

Linde MH, just like the rest of the KION Group, aims to increase the proportion of women in the company. To that end, a new social media campaign aimed specifically at women was launched in 2022. The campaign aimed to increase interest in technical professions among women and raise awareness of the importance of gender diversity in this field.

In addition, the Female Mentoring Program—a platform that fosters a mutual exchange of knowledge and experiences—provides targeted support throughout the Group for colleagues who are in management positions or are planning to take on a management role in the near future. The individual advice and caring support that mentees get from their mentors enables them to gain new insights and to develop on both a personal and professional level.

Percentage of female employees:

2023	2022	2021
18%	17%	17%

Accessibility

Everyone should have the opportunity to realize their potential at work. That is why Linde MH is constantly striving to create an accessible working environment. The internal representative body for employees with disabilities represents the interests of severely disabled employees vis-à-vis the employer and provides them with support and advice. It ensures that the applicable regulations for severely disabled people are met and applies for appropriate measures from the responsible internal or external bodies. The body also receives suggestions and complaints and works to resolve them within the company.

For example, it makes sure that the recruitment process is barrier-free and examines how individual positions can be adapted to specific needs. In addition, processes have been put in place to ensure continued employment in the event of constraints and to facilitate reintegration into the workplace.

In France, for instance, Fenwick-Linde has been promoting the employment of people with disabilities for 12 years. In addition, where possible, contracts are also awarded to organizations that operate sheltered workshops. Guidance on working with people with disabilities has now also been drawn up with the aim of combating stereotypes and raising awareness among managers.

Human Rights

The KION Group introduced its International Minimum Employment Standards (MES) Policy in 2014. Among other things, these minimum standards ensure that universally recognized human rights and the ILO (International Labour Organization) Core Labor Standards inform all our employment relationships. We must scrutinize our own actions, identify potential risks for employees, and monitor compliance with the defined standards. These checks are carried out in various ways, including the review of personal data and requested information, interviews conducted as part of audits by the Internal Audit department, and the review of reports made to KION Compliance, in particular via the whistleblowing hotline. All employees and individuals both inside and outside the company are encouraged to report any issues relating to compliance or violations of the compliance system, including child labor, slavery, and human trafficking.

Linde MH always checks the age of applicants before they are hired by obtaining their social security number and thus their age. To protect young employees, Linde MH has appropriate training and occupational health and safety departments.

Employees of school age:

2023	2022	2021
0	0	0

Independent auditors review the sustainability report and data at the KION Group level every year. They also carry out site visits—attending different sites every year—to ensure that the data is correct and that all the rules are being followed. Every single site conducted a human rights review in 2022.

Incidents of forced and compulsory labor:

2023	2022	2021
0	0	0

Health and Safety

HEALTH AND SAFETY



A good job needs to be secure, and with this in mind, a Group-wide KION HSE standard was introduced in 2018. This standard provides the basis for uniform requirements and processes within the Group. Additional HSE regulations have been specifically set out for the legal entities as well as the sales and service companies. The regulations take into account work-specific and regional circumstances and are continuously adapted to new conditions.

At Linde MH, these Group-wide standards provide the basis for the guidelines on how HSE is to be implemented at the operational level. Not only do these detailed regulations meet legal health and safety requirements, they often go above and beyond. This is because Linde MH always aims to ensure that its employees can do their work as safely as possible and the environmental impact is kept to a minimum.

Since 2019, the Group-wide “Golden Rules of Occupational Safety” have been helping to reduce accidents with specific instructions for managers and employees. They are communicated to staff across the company and are proving to be successful.

Health and safety is part of the corporate strategy. This also applies to external companies that work for Linde MH. It is important that their activities are managed in such a way that the safety of the contractor’s and client’s employees, as well as visitors to Linde MH, is guaranteed and the applicable safety regulations are observed.

Health in the Workplace

Employee health is always a top priority at Linde MH, so a wide range of measures are taken to promote awareness of a healthy lifestyle. As well as providing health-related information, many sites offer preventive health checkups, dietary advice, and vegetarian dishes in the canteen.

All employees have access to the “mein EAP” platform, which provides free and confidential advice and assistance to employees. This service includes solution-oriented support in overcoming crises, referrals to other institutions such as doctors, psychotherapists, counseling centers, and authorities, and face-to-face or telephone consultations.

Safety: Prevention Rather than Reaction

In accordance with the HSE standards, all workplaces at Linde MH regularly undergo a comprehensive risk assessment, from production and office spaces through to the working conditions of service technicians on customer premises. The aim is to ensure that employees come into work healthy and go home healthy—without any occupational diseases at the end of their working lives.

A site-specific HSE risk assessment was carried out for the first time in 2017. The assessment looked at the focal points of activity on site, existing facilities, and the management system in place. Based on these factors, the KION Group—including Linde MH—is classified as medium risk in terms of HSE across all industries. This one-off assessment has since evolved into an ongoing tracking process, with the aim of continuously updating the risk assessment criteria and carrying out high-impact assessments for new sites.

Part of this risk assessment also involves evaluating mental stress in the workplace. This is done by completing a systematic questionnaire to assess the risk to employees’ mental health due to stress, psychological fatigue, monotony, mental satiation, and emotional exhaustion and determine specific countermeasures.

Sites that communicated a risk assessment:

2023	2022	2021
92%	89%	98%

Handling Working Materials and Hazardous Substances

Special care must always be taken when handling hazardous substances. An interdisciplinary hazardous substances committee therefore monitors all listed working materials along with their safety data sheets, legal aspects, and application methods. This body also encourages their replacement with less harmful substances where necessary, defines protective measures, and is responsible for the approval of new substances.

All employees who work with a hazardous substance and all persons who may come into contact with hazardous substances are informed verbally about the hazardous substances and the correct, safe procedures for handling these substances at least once a year. This includes potential hazards, protective measures, rules of conduct, as well as emergency measures, and may be supplemented by practical exercises. If a health and safety hazard cannot be eliminated by technical or organizational measures, the use of personal protective equipment is required.

Emergency Management

In emergency management situations (in the event of an accident, a fire, or an unforeseeable situation), employee behavior has a decisive influence on the subsequent course of events. For this reason, Linde MH has introduced a process that ensures an appropriate, rapid, and organized response.

Up-to-date emergency plans are therefore available at all sites. These plans set out the most important information needed in an emergency in bullet point format, and are displayed in a clearly visible location, such as near the entrance or next to the fire extinguishers. Site management is responsible for preparing these plans, and is supported in this task by their safety specialists and—if available—the fire protection officers.

Accidents and near-accidents are recorded and carefully analyzed at all sites using various tools. In Switzerland, for example, a special reporting app has been introduced to learn from unsafe or dangerous situations. Employees can use this app to report risk situations online so that appropriate preventive measures can be taken to prevent them arising again in the future. The reported situations and the countermeasures taken are available on the Intranet and can be viewed by all employees.

As well as preventing adverse effects for the company, this can have a positive impact on the public perception of the company and its relationships with customers, suppliers, investors, and employees. In this way, Linde MH creates trust and is able to mitigate the negative impacts of an incident that could affect any site and any employee.

Training

Regular training and instruction in occupational health and safety ensures employees and designated individuals (for example, first responders and fire safety officers) are able to respond quickly and appropriately in hazardous situations. All conceivable company-specific incidents and scenarios must be covered.

New employees must complete workplace- and job-specific training on hazards that could arise as well as protective measures and appropriate conduct in case of an emergency before starting work and at least once a year thereafter. The precise nature of this training depends on the respective requirements.

The respective manager is responsible for providing the safety training, which includes the following topics:

- safety-related responsibilities of employees and managers
- conduct in an emergency (emergency call, escape routes, assembly point, etc.)
- procedure for reporting accidents in the company
- emergency contact information
- first aid and emergency equipment
- procedure and equipment in the event of fire
- general, company-specific safety precautions
- smoking and alcohol policy
- use and availability of personal protective equipment
- safe handling of hazardous substances
- safe use of machines, cranes, and forklift trucks
- the company's environmental requirements
- potentially explosive atmospheres
- carrying out manual activities
- wellbeing and hygiene
- safe use of tools and portable electrical equipment
- safety awareness, performance incentives, and behavior-based training.

As part of the Group-wide training program for HSE specialists and executives, a comprehensive training package promoting a more proactive approach to HSE has been offered for the first time. Additional training should also be conducted as and when needed—especially after (near) accidents. Any employees who miss a session must make up the training at the earliest opportunity.

Employees who have been trained in health and safety:

2023	2022	2021
100%	100%	100%

Field Service and Management of External Companies

Customer service employees ensure that Linde forklift trucks are always ready for use. Repair and maintenance work is often carried out directly on customers’ premises. To ensure optimal occupational health and safety for employees when working off-site too, the Service Compendium and the Linde Service Guide summarize key aspects and guidelines for safe off-site work and provide specific advice for practical implementation at the customer. Besides creating safe working conditions, they also address the ergonomic design of workplaces and service vans.

External contractors are required to inform their employees and any subcontractors about the regulations set out in Linde MH’s HSE information sheet before starting work at a Linde MH plant. Whenever there is a change in personnel, supervisors must also inform new employees about the specific requirements applicable to the work or construction site before starting work, then regularly thereafter and in any case at least once a year.

Occupational Health and Safety Key Figures

The key figure associated with the sustainability target of reducing the number of occupational accidents and lost time due to illness is the Lost Time Injury Frequency Rate (LTIFR¹). Going forward, the aim is to reduce this limit and hence the accident frequency by at least 5% a year.

LTIFR (Lost Time Injury Frequency Rate¹):

2023	2022	2021
8.9	9.5	11.9

[1] Frequency of accidents with working days lost relative to one million hours worked.

LTI (Lost Time Injuries²):

	2023	2022	2021
Employees incl. trainees	201	208	255
Employees on a fixed-term contract	13	13	33
Contractors, guests, other	5	5	7

[2] Number of occupational accidents resulting in the loss of at least one working day.

Every year, the best HSE achievements of various teams from the Group's plants around the world are assessed as part of the KION HSE Championship. Linde MH regularly comes top of the leaderboard, especially in terms of occupational safety. But more importantly, the competition has led to numerous innovative and successful safety improvements, which have then been implemented throughout the Group. Examples range from color-coded safety areas and special emergency and communication columns to driver safety training to make employees' commute to work even safer.

Sites with an official joint health and safety committee:

2023	2022	2021
88%	88%	89%

Audits and Certifications

HSE certifications ensure that all relevant HSE data is available in the required quality at all times so that corrective action can be taken quickly if necessary. The assessment results also provide important points of reference for the strategic development of future activities. Under the KION Group's current strategy, all sites are to be certified in accordance with ISO 45001. However, executives should be aware that this certification requires a higher standard than that specified by local legislation.

Sites certified in accordance with ISO 45001:

2023	2022	2021
91%	82%	74%

Regular HSE audits are also essential for the local organizations, as they examine the HSE management system at different intervals. These audits also ensure that all elements of the HSE system are observed on site. Internal audits are carried out regularly—on at least a quarterly basis—by a qualified individual.

Environment

ENVIRONMENT



Certified Environmental Management

As part of its HSE management, Linde MH strives to minimize the impacts it has on the environment. In particular, the company aims to use resources responsibly and consistently reduce its local environmental impact. To do this, Linde MH pursues an indicator-based approach, focusing on energy and greenhouse gas emissions, water, and waste.

The company's integrated management guideline "Quality – Health and Safety at Work—Environment—Energy" requires the management and all executives to ensure processes and production operations are environmentally friendly and energy efficient. Waste is also to be avoided wherever possible, and natural resources such as water, soil, and raw materials used in a sparing and responsible way. In addition, the guideline requires and promotes efforts to avoid or decrease the release of emissions into the air, water, and soil as well as active steps aimed at reducing greenhouse gas emissions generated by business activities.

Some Linde MH sites are developing specific strategies to take local conditions into account, in addition to KION's Group-wide HSE standard. To support these efforts, an HSE officer has been appointed for each national subsidiary.

A key sustainability target in the corporate strategy is for all sites to obtain the ISO 14001 (environmental management) certification by 2024. Regular audits provide transparency regarding sustainability performance as well as the basis for continuous improvement in this area.

Sites certified in accordance with ISO 14001:

2023	2022	2021
94%	85%	81%

Energy

Since 2020, all Linde MH plants in Germany have been procuring their electricity exclusively from renewable sources. In addition to the environmental benefits, switching to green electricity has also generated significant cost savings. The sites in Germany and the Czech Republic are leading the way in this respect and demonstrating that the use of renewable energies can make both environmental and economic sense.

Linde MH's production sites with the highest energy consumption are now certified according to ISO 50001 (energy management) and are regularly assessed as part of the current certification cycle. This also eliminates the need for the prescribed four-yearly energy audit.

The certification facilitates continual improvements in the area of energy efficiency, and the warehouse technology plant in Châtellerault is a prime example of this. This plant's building technology makes it possible to determine operating times based on the outside temperature or sunlight, which generates significant energy savings. The team in Châtellerault initiated the certification process back in 2013, and it was completed in 2015. This makes the plant a pioneer in the KION Group.

At new Linde MH sales and service locations, appropriate technical standards for construction and building technology help to save energy. These include—for example, at Willenbrock Fördertechnik in Burgwedel—energy-efficient façades and alternative heating systems (such as air source heat pumps), LED lighting with daylight control, green roofs, insect-friendly systems, and preparations for the installation of photovoltaic systems.

There are numerous other examples of energy savings achieved through process optimization in the company:

- Thanks to a precise process analysis, significant energy savings have been achieved on the powder painting line at Linde MH's largest plant in Aschaffenburg. Some 20 fans and 4 cooling towers were being used to provide the mast cooling for the paint shop. The process analysis showed that there was no need for this many resources and that the energy consumption was therefore too high. By optimizing the cooling zones, one cooling tower and four fans could be switched off, resulting in energy savings of approximately 25% for this process and reducing electricity consumption by approximately 210,000 kWh per year.
- LED lighting instead of fluorescent tubes: By converting the hall lighting from neon tubes to LED lighting in Aschaffenburg, some 1211 tons of CO₂e are saved every year.
- Own renewable energy production at LMH Ibérica Spain: The installation of 252 solar panels (each 440 Wp) on the roof in conjunction with two inverters with remote control and monitoring has generated savings of 380,000 euros and around 10.5 tons of CO₂e annually.
- By switching from a mix of energy sources to 100% renewable energy, Jetschke Industrie in Germany has achieved annual savings of 1,100 euros and 19 tons of CO₂e.
- Reducing compressed air leaks cuts energy consumption: Leaks lead to higher energy consumption and higher costs, which should be avoided for economic and environmental reasons. A single one-millimeter leak costs around 500 euros per year due to wasted energy. That is why the team at Linde MH Aschaffenburg meticulously searches for and eliminates leaks in the compressed air network,—for example by replacing maintenance units, tools, shut-off valves, vents, or worn compressed air hoses. These optimization efforts generate annual savings of up to around 51 tons of CO₂e at Aschaffenburg.

Energy consumption (GJ):

	2023	2022	2021
Total energy consumption, direct and indirect	1,107,453	1,079,340	1,143,040
Direct energy consumption	826,270	812,178	871,715
Diesel, non-renewable	358,726	332,040	345,620
Gasoline, non-renewable	28,874	27,011	23,307
Ethanol, non-renewable	34	20	260
Heating oil, non-renewable	2,299	6,371	2,459
Hard coal, non-renewable	92	83	65
Coking coal, non-renewable	162,344	141,279	158,171
Natural gas, non-renewable	249,476	280,223	316,201
Compressed natural gas, non-renewable	5,811	7,124	7,889
LNG, non-renewable	36	18	0
LPG, non-renewable	13,850	14,074	12,775
Other direct energy consumption, non-renewable	20	0	0
Bioethanol	400	0	0
Wood chips, renewable	-	3,455	5,166
Hydrogen, renewable	3	0	0
Self-generated solar elect., renewable	1,042	477	0
Indirect energy consumption	281,183	267,162	271,325

Electricity purchased	272,388	258,485	262,359
Heating purchased	8,795	8,677	8,966

Water

Linde MH and its production facilities are based in regions with sufficient water supplies and good local infrastructure. The company makes sure that all facilities on its premises comply with the applicable safety and environmental regulations and are regularly checked to ensure that they are in good working order.

Measures have been taken at the plants to reduce water consumption, such as the instruction to wash company vehicles only when necessary. Existing plants and equipment are updated whenever buildings are renovated or facilities are upgraded or installed:

- The powder painting line at the Aschaffenburg plant has been at the cutting edge of technology since 2019. The process is fully automated and can completely eliminate pollution, volatile organic compound emissions (VOCs), and the need for water treatment thanks to the technologies in place. Solvent emissions alone have fallen by almost 25 tons per year.
- At the Weilbach production site, a special sweeper has been commissioned to clean outdoor areas on a daily basis. The machine is equipped with effective filters that have resulted in significant reductions in dust emissions during the sweeping process. Moreover, the super quiet machine needs only 40% of the water volume used by the previous equipment and is more energy-efficient.
- At the same site, closed cooling circuits are used for sand conditioning and in the cupola furnace to reduce water consumption. In these systems, the main aim of coolant treatment is to prevent corrosion by means of softening or desalination and chemical dosing. This means that water is rejected only when the salt content reaches a certain level.
- Willenbrock Fördertechnik conserves water by using a cistern to collect rainwater. With a capacity of 20,000 liters, it can collect a large amount of water when it rains, which is then used to flush toilets in the building and irrigate green outside spaces.
- At the Barcelona site, a washing plant with water treatment has been installed to reuse water and keep water consumption to a minimum.

Linde MH's business activities have only a very minor impact on water quality, so apart from the use of light liquid separators, there is no need for any further pretreatment of wastewater prior to disposal. Nevertheless, Linde MH has its wastewater regularly monitored by external analyses, which are in turn monitored through internal reporting processes that record volumes and treatment methods. Water withdrawals and wastewater are regularly monitored by means of monthly sampling and analyses, for example.

Key figures on water withdrawal and wastewater can be found in the table.

Water withdrawal (m³):

	2023	2022	2021
Total quantity of water withdrawal	146,211	140,942	153,409
Ground water	11,206	9,575	9,046
Municipal water supply	135,005	131,367	143,863
Water withdrawal from other sources	-	-	500

Climate Protection

The efforts being made worldwide to limit global warming and tackle the associated challenges require proactive, future-oriented action to protect the climate—including from Linde MH and its partners. In addition to its own direct activities, the KION Group works closely with its customers, suppliers, and business partners in various areas such as energy consumption, resource efficiency, the reduction of GHG emissions (greenhouse gases), and adaptation measures.

KION's climate and energy management strategy is based on the agreement concluded at the 2015 United Nations Climate Change Conference in Paris (Paris Agreement). In 2017 and 2018, a science-based climate target was formulated to reduce the Group's energy-related emissions (Scope 1, 2, and 3) by 30% by 2027 compared to 2017. To this end, the company undertook a comprehensive review of its current climate strategy in 2021.

As a significant interim result, new strategic targets have been developed that are fully aligned with the current criteria of the Science Based Targets initiative (SBTi). As well as expanding the scope of the climate targets to include further Scope 3 emissions, the targets are based on the Net-Zero Standard for companies aimed at limiting global warming to 1.5 °C compared to pre-industrial levels in accordance with the Paris Agreement.

Following these new targets, the company intends to achieve a clear reduction in GHG emissions in the value chain by 2030 (near-term) and to pursue a path toward net zero by 2050 at the latest (long-term; Scope 1, 2, and 3). The strategy takes into account carbon dioxide (CO₂), which makes up the largest share, but also other greenhouse gases such as methane, nitrogen oxide, hydrofluorocarbons, sulfur hexafluoride, and nitrogen trifluoride where possible and relevant. By setting these targets, the Group is also preparing for new regulations such as the European Green Deal and the EU Taxonomy.

The KION Group has set up a comprehensive climate management system to manage its GHG emissions and energy use. This system covers the Group's own operations as well as other parts of the value chain, from production through use and reuse at the end of the present product life cycle. The internationally recognized rules of the Greenhouse Gas Protocol serve as the basis for the calculation and presentation of data on GHG emissions.

With regard to Scope 1 and 2, GHG emissions and energy consumption in the company are being reduced further by improving processes and using more energy-efficient technologies. Ongoing measures initiated through the local energy or environmental management systems link into central initiatives. These include:

- Switching to energy-efficient motors
- Using waste heat in production
- Optimizing heating systems and building infrastructure
- Using LED technology
- Optimizing transport in sales and service
- Converting the vehicle fleet to low-carbon drive technologies
- Increased sourcing and in-house production of energy from renewable sources

In Scope 3, relevant categories are taken into account based on a materiality analysis of GHG emissions. Priority is placed on the largest category by far—the emissions of products in the use phase. In addition to product design, customers are encouraged to factor sustainability aspects into their decision when choosing a solution and to use the products in an increasingly energy-efficient way and in conjunction with energy from renewable sources. There is also a particular focus on the emissions of purchased goods and services—that is, material and supplier-specific GHG emissions—as the second-largest emission category besides Scope 1 and 2. In terms of the two major Scope 3 categories, we are working to gradually integrate the insights from life cycle analyses based on material, supplier, and customer data as well as measures to engage partners in the value chain (for further information, see the [KION Sustainability Report 2023](#)).

Greenhouse gas emissions (kg CO₂e):

	2023	2022	2021
Scope 1, market-based	59,648,143	57,728,410	61,558,646
Scope 2, market-based	5,438,293	5,557,200	5,443,837
Scope 3.3 ¹ , location-based	16,392,208	15,626,026	16,173,164
Total emissions	81,478,644	78,911,636	83,175,647

[1] Indirect (upstream) fuel and energy-related greenhouse gas emissions.

CO₂ Compensation via Certificates

In addition to the company’s own emission reduction measures, compensating for unavoidable emissions with climate protection certificates is another way to effectively mitigate climate change. Thanks to this approach, Linde Material Handling (Schweiz) AG has been delivering equipment to customers in Switzerland in a carbon-neutral way since July 2022, making it one of the first intralogistics companies to offer climate-friendly transportation. The company works with Swiss Climate to purchase emission certificates and support selected climate protection projects.

Thanks to these efforts, Linde Material Handling (Schweiz) AG has successfully offset 32.4 tons of CO₂ via a climate protection project. The supported project generates renewable energy from sawdust produced during the production of raw material for paper manufacture. The sawdust is reused as biomass to produce water vapor, which in turn serves as the energy source for the production of raw material. This regenerative system therefore enables fossil

energy sources to be replaced as a heat source. The biomass project is one of the only climate protection projects in Europe to have been awarded Swiss Climate’s “Gold Standard.”

All German companies in the Group also offer their employees the opportunity to use a portion of their gross pay to lease a bicycle, which they can then use outside of their commute as well. By offering this scheme, Linde MH is responding to the wishes of many colleagues while at the same time promoting sustainable mobility. Furthermore, new company car regulations were introduced at Linde MH Nordic Markets (Denmark, Sweden, Norway) in 2022 meaning that only hybrid and purely electric cars are now permitted.

Other Monitored Emissions

Linde MH buildings are usually located in industrial areas where no residents live. Ongoing checks and measurements have shown that noise barriers are not needed. However, the company does employ internal noise protection measures, such as enclosures for the relevant work areas, roller shutters in workshops, and personal protective equipment.

Linde MH has systems for filtering exhaust air—such as exhaust gases, paint, and welding fumes—at many sites as well as dedusting systems in trucks. Highly effective filter systems are installed in the foundries in particular to minimize the release of fine dust into the atmosphere and environment. Where emissions are generated by painting and heating systems, Linde MH uses highly effective combustion processes that minimize pollutants in the gases emitted into the atmosphere and feed the heat generated back into the buildings or manufacturing processes.

Other monitored emissions into the air (kg):

	2023	2022	2021
Total quantity of other significant air emissions	134,012	119,406	133,198
Carbon monoxide (air emissions, CO)	18,347	11,034	10,300
NOx	18,318	18,097	27,641
SOx	34,009	34,068	29,861
Volatile organic compounds (VOCs)	41,425	36,836	41,699
Fine dust (PM)	3,492	3,389	2,504
Other emissions into the air	18,421	15,982	21,192

Resource Efficiency

Linde MH has introduced resource-saving measures at nearly all of its sales and service entities—including opportunities for truck refurbishment, return systems for batteries, and partnerships for the return and recycling of tires. The refurbishment process extends the service life of forklift trucks and improves material efficiency and the environmental balance, such as their carbon footprint, energy consumption, and VOC emissions. This significantly reduces the overall demand for energy and raw materials, as well as the amount of waste generated.

The mixed production line in Aschaffenburg, where several different truck models are assembled on the same line, is another way in which the company is using resources more efficiently. As well as offering economic advantages, this production method is also extremely beneficial from an environmental perspective: The smaller production area reduces the need for raw materials and energy for the construction, operation, and maintenance of the infrastructure. The forklift trucks built on the mixed model line have also increased the degree of automation in production, for example through the use of robot welding. This not only has environmental benefits, such as reducing power peaks, but also health benefits, as employees in many areas are no longer directly exposed to the hazards of the welding process, such as heat and smoke.

Making the most economical use of resources has become the established approach at the Weilbach site, too: Parts that are indispensable for all forklift trucks have been cast here since 1975. The team at the foundry produces counterbalances that are made entirely from melted scrap from all over Europe and are assembled in Aschaffenburg. Depending on the product line, a counterbalance can weigh between 700 and 3300 kilograms.

Replacing critical or hazardous substances with less critical ones is also an important aspect of responsible resource management. This applies both to raw materials and to operating materials that are required for production but do not form part of the end product. For example, the hazardous substance methylene chloride, which was commonly used to clean paint spray guns, has been replaced with a less dangerous substance in recent years. A less hazardous product is also being used to rinse painting facilities.

The careful use of resources also requires the careful disposal of waste. Linde Pohony in the Czech Republic, for example, uses waste compactors that are suitable for plastic and paper waste. They reduce fuel consumption and CO₂ emissions because there is less waste to dispose of. In addition, they are covered to prevent rainwater from becoming contaminated.

In France, Fenwick-Linde stopped sending industrial waste to landfill in February 2023 and is working with the waste-to-energy plant in Limoges to recycle all of its waste. The material is recycled in a combustion plant, and the heat generated is converted into electricity via a turbine and fed into the grid.

Our headquarters in Aschaffenburg and production plant in Nilkheim are also, for example, reducing their waste in another specific area by introducing RECUP and REBOWL, a system with more than 13,900 takeout and return points. This system is being rolled out at Linde MH as well and helping the company to avoid 30 kilograms of waste a day while saving 30,000 euros every year.

Waste (t):

	2023	2022	2021
Hazardous waste for disposal	1,668	1,996	1,672
Incinerated	675	961	734
Sent to landfill	511	543	482
Other disposal methods	482	492	456
Non-hazardous waste for disposal	3,150	2,018	2,963
Incinerated	1,817	360	419
Sent to landfill	802	1,048	1,886
Other disposal methods	530	611	658
	2023	2022	2021
Hazardous waste for recovery	5,534	5,365	5,729
Recycled	4,550	4,519	5,023
Prepared for reuse	646	521	432
Other recovery methods	338	325	274
Non-hazardous waste for recovery	28,177	54,285¹	23,773
Recycled	24,326	50,123	19,192
Prepared for reuse	3,532	3,810	4,383
Other recovery methods	319	353	198

	2023	2022	2021
Hazardous waste	7,202	7,361	7,401
Non-hazardous waste	31,327	56,303	26,736
Total waste for disposal	4,817	4,014	4,635
Total waste for recovery	33,711	59,649 ¹	29,502

[1] The increase in recovered waste is due to the dismantling of buildings at a German site.

Collective Effort

The mandatory annual HSE training also covers topics relating to the company’s environmental, climate, and energy management, such as energy and water consumption, waste separation, and climate risks.

Percentage of sites at which employees were trained:

2023	2022	2021
98%	93%	89%

The numerous environmental protection campaigns organized over the years are a testament to the company’s success at raising employee awareness of environmental issues:

- Every year at Easter, the “Recycling Bunny” visits employees in Switzerland with ideas, tips, and suggestions relating to sustainability and health. The more that is recycled, the less needs to be produced. As well as preventing huge amounts of emissions from being released into the atmosphere, this will also conserve a lot of natural resources.
- In March 2023, employees at Linde MH Germany were called on to donate their old cell phones, tablets, and accessories as part of World Recycling Day. Around 80% of the components in a cellphone can now be recycled and used to replace material that would otherwise have to be sourced from nature. Linde MH is supporting the “Handys für Hummel, Biene & Co” (Cell Phones for Busy Bees and Friends) initiative of the German Nature And Biodiversity Conservation Union (NABU) with these efforts. Since 2006, NABU has been committed to ensuring that cellphones are recycled correctly and to returning used electrical appliances to the material cycle. A total of more than 500 devices, including cellphones, tablets, headphones, and power adapters, were collected in the NABU boxes at the German sites. While this campaign specifically focused on personal devices, Linde MH is also working to ensure devices for work purposes can be reused or used for longer. For example, the on-site support team has been collecting outdated or faulty company cellphones at German sites for several years now. Once the boxes used to collect the phones are full, the devices are sent to a service provider who then recycles or refurbishes them.
- A green roof has been installed at Willenbrock Fördertechnik specifically to protect bees and insects. The 1,087 m² roof of an office building has been planted with grass, shrubs, and flowers to provide a source of food for bees and other insects. Green roofs like this not only promote local biodiversity but also improve air

quality, lower the ambient temperature, and store rainwater. Going forward, the plan is to install an economically viable number of PV systems covering a total area of 9,304 m² on the hall roof in order to produce renewable energy and reduce the company's dependence on fossil fuels.

- Information on potential ways to reduce energy consumption has been posted in the buildings at Fenwick-Linde's branches in France, generating savings of around 5,100 euros and a reduction of 10 tons of CO₂e in 2022.

Idea Management at Linde MH

Idea Management has been an established part of Linde MH for many years now and supports the continuous development of the company through the suggestions provided by employees. Quality, productivity, and job satisfaction are thus improved in the company by drawing on the knowledge and experience of all employees. The aim is to unlock untapped potential and incorporate it into the continuous improvement process for the entire product and service portfolio. This also includes production and work processes as well as working conditions, including occupational health and safety and environmental protection. Ideas for improvement are assessed by an expert from the relevant department using defined evaluation criteria and rewarded based on the resulting score.

In 2022, Idea Management organized its first environmental sustainability campaign, which invited employees to submit their ideas on how to make Linde MH more sustainable over a period of three weeks. Questions included: "How can we reduce our energy consumption, conserve raw materials and components, or reuse them more efficiently in a circular economy?" and "How can we optimize our supply chains and transport routes from an environmental standpoint and reduce waste or recycle it better?" A jury evaluated the ten best ideas and rewarded the three ideas with the biggest environmental impact. Linde MH has since implemented a total of seven ideas that came directly from employees.

One of these ideas is to use reusable packaging on short transport routes: While products from the warehouse were previously sent to the plant in Aschaffenburg in the same sized boxes with filling material, reusable crates in different sizes are now used for these deliveries.

Another employee's idea to switch from using disposable aerosol cans in quality assurance to ones that can be refilled and thus reused has also been implemented to positive effect. At the plant in Aschaffenburg, around 3000 to 4000 of these cans were consumed every year. The changeover to the new cans has reduced the amount of waste generated and minimized the release of propellant gases such as CO₂ and propane without any negative impact on quality. The aerosols are now supplied in large canisters and transferred to the reusable cans, which can also be operated with compressed air generated using green electricity. This clean energy source improves the overall sustainability of processes and reduces dependency on conventional fossil fuels. Following a successful trial phase at the plant in Aschaffenburg, the reusable cans are also being used at the plant in Stribro, while potential applications are currently under review at the plant in Kolbaskowo and Willenbrock Fördertechnik.

In addition, a sensor-based analysis of the compressed air network has been carried out based on an idea submitted during the campaign. This analysis has allowed us to optimize the network's control system and save 300 MWh of energy annually. Other measures, such as using AI to help detect leaks in the compressed air network, are currently in the works. Linde MH is also taking steps to identify other plants where the efficiency of the compressed air network could potentially be optimized.

By introducing these measures, Linde MH has reduced its environmental footprint and underscored its commitment to using resources in a responsible way. The success of these initiatives provides an incentive to introduce similar sustainable practices at all plants—and thus make a significant contribution to a sustainable future for the company.

Hydrogen

Hydrogen is expected to be an integral part of the energy mix of the future. Linde MH sees it as a promising alternative to conventional drives that can be used in large fleets working around the clock—particularly because the trucks can be refueled in a matter of minutes. The company has been producing green hydrogen using its own infrastructure on plant premises since spring 2023, and is using this hydrogen to power 21 fuel cell trucks in the plant fleet. At the heart of the system is an electrolyzer, which breaks down water (H₂O) into its component parts of oxygen (O₂) and hydrogen (H₂) using electricity. To ensure that this endeavor also makes sense from a climate technology perspective, only electricity obtained from wind, water, the sun, and other renewable energy sources is used for this purpose. Linde MH intends to have this green hydrogen certified in the near future.

Fleet and Transport Management

In terms of the switch to more environmentally friendly drives, the fleet and transport management strategy is to replace the company's own combustion vehicles with electric models. For example, Jetschke Industriefahrzeuge—a Linde MH subsidiary in Germany—replaced two diesel vans with two electric vans in the second quarter of 2022. In the third quarter, Linde MH replaced two diesel vehicles with two purely electric vehicles plus a further eight diesel vehicles with eight plug-in gasoline hybrid vehicles.

In addition, the area management plan for service technicians has been restructured at all Fenwick-Linde branches in France in order to optimize the fleet and routes. At Loire Océan Manutention, also in France, route planning has been optimized to achieve a better distribution of customer service technicians' sectors by forming groups of two according to customers and geographical areas.

The use of the new software Area Reform also enabled Linde Magyarország Anyagmozgatási in Hungary to reduce fuel consumption in 2022 by optimizing the routes and thus the emissions of service vehicles.

Fourteen new EV charging stations were also installed at Willenbrock Fördertechnik in 2022—eight in Bremen and six in Großburgwedel—to promote e-mobility among employees. The company's vehicle fleet currently consists of 26 hybrid vehicles and two electric vehicles.

Products and Solutions

PRODUCTS AND SOLUTIONS



Performance, efficiency, reliability, user-friendliness, and versatility: That's what Linde MH solutions and services stand for, and that's what customers trust in and are passionate about. Sustainability and the considerate use of resources have also long been part of the company's brand promise. Because true efficiency must consider the total operating costs—and the most economical resource is still the one that's never used. This principle is why Linde MH supports its customers with holistic solutions that help them save energy, reduce emissions, and optimize their environmental footprint.

Product Development

With uniform standards and global coordination of technical activities to shorten the development processes for more product variants, the KION Group's development approach is designed for efficiency. Development projects, initiated by product management in the Operating Units according to customer need, are coordinated and pooled by the Group-wide R&D¹ organization.

In 2020, the innovative Product Evolution Process (iPEP) was redesigned as part of the KION Product Development Optimization (KPDO) project to incorporate sustainability aspects even more firmly in product development, with corresponding targets and design specifications.

In the iPEP, the implementation of sustainability requirements at Linde MH is supported by life cycle management software that organizes and documents requirements and the achievement of targets.

The iPEP's focus for 2021 was on fleshing out the product strategy. In 2022 and especially during 2023, attention turned to preparing further improvements in the product development process in order to boost product sustainability on an even wider scale. These improvements are set to be completed in 2024 and also include revising the guidelines used to test the sustainability criteria of products.

In keeping with the overall strategy of the KION Group, prioritizing the energy efficiency and sustainability of its products is also a key aspect for Linde MH. This includes reducing greenhouse gas emissions during the product use phase and increasing the use of recyclable and recycled materials. Linde MH strives to develop environmentally friendly and energy-efficient products and solutions that conserve resources and are cost-effective for customers. To this end, the company opts for eco-friendly materials and ensures that its products are easy to reuse, repair, and refurbish. Moreover, big data analyses make it possible to create product specifications and configurations that forgo unnecessary safety buffers while utilizing the life cycle to the optimal extent.

Linde MH applies agile methods to conduct these analyses. This means that work results are available sooner and goals can be achieved earlier. A high degree of modularity helps to optimize the use of materials and has a positive impact on logistics, production, and service. Intelligent platform concepts are an important element of this approach. For example, the new generation of Linde MH counterbalanced forklift trucks requires fewer parts than its predecessor. This reduces logistics costs, increases efficiency, and, in the medium term, reduces the need for spare parts in the more than 8500 service vehicles in operation throughout Europe.

It is also important that the trucks offer maximum driving performance with minimum fuel consumption. All electric forklift trucks developed in the future will therefore be both lithium-ion and fuel cell capable. What's more, with the development of the X models, an electric forklift truck is now available that can replace an internal combustion truck in almost any operation. The KION Group had set itself the goal of making 90% of its portfolio electrically powered by 2027, including battery and fuel cell-powered products. However, this figure was already achieved in 2023 and this target is therefore being reviewed at present. Linde MH contributed to this aim during the year under review by equipping 90.1% of products sold with an electric drive.

Finalist in the German Sustainability Award Design 2023

In November 2022, the Linde MH X20-X35 electric forklift trucks were nominated for the final round by the jury of the German Sustainability Award Design 2023: The forklift trucks are as powerful and robust as conventional combustion engine models, but do not generate any climate-damaging CO₂ emissions when powered with electricity from renewable energies. In addition, they are produced in a resource-efficient manner, avoid the use of composite materials, and are designed in a way that facilitates disassembly and recycling. After being used in the trucks, the lithium-ion battery systems can be reused as static storage batteries and then recycled. The trucks are even more sustainable because they are designed for a long service life and can be easily repaired thanks to the use of replaceable components.

Energy Management

New drive technologies aren't the only way to reduce energy consumption—making better use of energy can also open up significant scope for savings. One of the areas that Linde MH is working on to further improve product efficiency is therefore the development of solutions for the networked control of chargers. The aim of these solutions is to avoid expensive load peaks and to efficiently control the load consumption of the individual chargers. In addition, data-based analysis software enables customers to make all energy consumption in the company transparent, identify potential savings, and purchase energy more cost-effectively based on consumption forecasts. For example, the charging times for the forklift fleet can be adapted to the availability of electricity from the plant's own photovoltaic systems.

With data-supported consulting tools, Linde MH helps customers to find the ideal drive and energy system for their fleet so they can achieve their sustainability targets. Sales colleagues use the Linde Energy Manager, for instance, to record all criteria relevant to the selection of an energy system in collaboration with the customer. Based on this information, the software provides a percentage assessment of which energy solution—diesel, gas or biofuel, lead-acid battery, lithium-ion drive, or hydrogen fuel cell—is best suited to the customer's operating conditions and aims in terms of cost and sustainability. Expertise and test data from various departments have been used in the development of the software and associated database.

Alternative Fuels and Drive Technologies

Linde MH also offers environmentally friendly alternatives for industrial trucks with combustion engines. In 2022, the KION Group received approval to use hydrotreated vegetable oil (HVO) as a fuel in Linde MH internal combustion forklift trucks. Depending on the manufacturer, a large proportion of HVO diesel is produced from renewable raw materials. Customers who use diesel forklift trucks can now fill up with this more environmentally friendly alternative diesel fuel, reducing greenhouse gas emissions by up to 90% compared to conventional diesel.

Energy-efficient lithium-ion batteries are available for the majority of Linde MH's fleet. They offer decisive advantages over conventional lead-acid batteries, including faster charging times and higher charging efficiency as well as a service life that is three to four times longer and a much higher energy content. In addition, the energy efficiency of lithium-ion batteries is over 90%, which enables users to achieve energy savings of around 30% as well as significantly reduce greenhouse gas emissions compared to a conventional battery-charger combination.

Hydrogen

At the customer's request, Linde MH offers the factory integration of fuel cells into its industrial trucks as well as the "fuel cell ready" option. The aim is to give customers an environmentally friendly energy alternative by offering forklift trucks with fuel cell technology. If hydrogen obtained from renewable energies is also used, the fleet then operates virtually emission-free and so makes an important contribution to greenhouse gas emission savings. Indeed, Linde MH already has one of the largest fuel cell fleets in use at the production site of a well-known German automotive group.

Customers who want to make the switch to a hydrogen-powered forklift fleet are faced with an important decision, as in many cases the entire infrastructure needs to be built first. This requires technical specialists who support and advise the customer, carry out feasibility studies, and handle project management all the way through to implementation. Linde MH works with appropriate partners to ensure that its customers get the best fuel cell solution. In 2023, Linde MH set up a hydrogen infrastructure consisting of an electrolyzer, compressor, tank, and refueling system at the Aschaffenburg site.

Refurbishment and Recycling

Linde MH also develops concepts that protect the environment in the phase following the long-term use of its products. As well as producing its own lithium-ion batteries, the company also pays special attention to refurbishment and recycling. After all, what happens to the batteries once the guaranteed charging cycles have been reached is a crucial issue for the future.

This is where Linde MH's return guarantee comes in: The nearest network partner in the country concerned takes back the batteries, thus ensuring that Linde MH fulfills its legal obligation to do so. Linde MH lithium-ion batteries go through a life cycle process with the aim of taking full advantage of the extraordinary lifespan of this technology:

Step 1: Refurbishment

Thanks to lithium-ion batteries' long lifespans, batteries in a certain state of health (SoH) can be cleaned, refurbished, and reused in a new or used truck. Depending on battery usage, this cycle can usually be repeated several times.

Step 2: Remanufacturing

If the used battery no longer meets the requirements for reuse in a forklift truck but is still functional, parts are repurposed for other operations (such as cell modules in stationary operations or reconditioned steel trays for new batteries).

Step 3: Recycling

Once a battery reaches the end of its life, it is disassembled into its composite parts and recycled according to the material. Cells and modules are recycled in a two-stage process and the resources they contain can be recovered. Since 2023, the KION Group has been developing a strategic partnership with Li-Cycle Holdings Corp. in Europe in order to implement recycling initiatives. This partnership enables the Group to send recovered lithium-ion modules to Li-Cycle facilities for processing. During the recycling process, the batteries are shredded in a two-step process that minimizes impacts on the environment. The recovered materials are then processed to produce resources that can be used in the manufacture of new batteries.

Linde MH also uses a well-established recycling loop for lead-acid batteries in which the manufacturers handle the recycling process.

For several years now, Linde MH has been offering attractive deals on rental and used trucks that reduce costs for the customer while at the same time conserving valuable primary resources. In the year under review, Linde MH gave a new lease of life to around 15,500 used trucks in the EMEA region, and so is already contributing to the development of a circular economy.

With its "Approved Trucks" concept, Linde MH has replaced the previous "Plus," "Super," and "Ultra" levels with a single high standard of refurbishment. This means that only industrial trucks that have undergone a clearly defined process following the strictest guidelines will be supplied to customer companies. It is important to Linde MH that the used trucks, which are sourced either from the company's own rental fleet or from leasing returns, have a blemish-free history.

The disposal of old forklift trucks is regulated by Directive 2000/53/EC of the European Parliament and of the Council. Linde MH therefore provides detailed information on the disposal of forklift trucks at approved recycling plants.

Life Cycle Assessments

Assuming that customers use a traditional energy mix, the use phase proves to be the main source of GHG emissions in the life cycle assessments prepared for Linde MH. The energy efficiency of the power units is therefore always a key focus, both for internal combustion engines and in the further development of powerful and efficient electric drive technologies.

The KION Group also strives to achieve significant savings in Scope 3 emissions, including in the design phase—particularly for products and solutions. The main levers for achieving this are energy efficiency and the choice of materials. This is also reflected in the KION Group plant standards.

Life cycle assessments are an effective tool for systematically integrating environmental aspects into the development process for new products and for making environmentally friendly improvements. They also ensure that the optimization of individual system components does not have a negative impact on the overall environmental performance. Armed with this knowledge, companies can make their products and processes more sustainable and thus make a positive contribution to the environment.

Footnotes:

[1] In pursuing a cross-brand and cross-regional development approach, the KION Group is aiming to achieve uniform standards and global coordination of technical activities. Functions such as research and development, procurement, quality, and sustainability management have been bundled and are part of the KION GROUP AG Executive Board portfolio of the Chief Technology Officer (CTO).

Sustainability in the Supply Chain

SUSTAINABILITY IN THE SUPPLY CHAIN



The KION Group has consolidated procurement into a centrally managed global organization that supports the activities of both the Industrial Trucks and Services (ITS) and Supply Chain Solutions (SCS) segments. As part of the CTO function¹, this global procurement organization aims to create value through category expertise and optimized geographic sourcing as well as leverage global synergies and local flexibility to build up a sustainable, scalable procurement base. The goal is to achieve excellent management of supplier relationships and a collaborative partnership with other KION divisions.

In order to achieve optimal results, reduce risks in the supply chain, and drive strategic growth as well as cost savings, KION is currently developing and implementing global tasks and responsibilities, objectives, models, mandates, KPIs, decision-making bodies, committees, interfaces, and escalation models in procurement. The result of these efforts is a targeted, global procurement organization that supports the entire KION Group and thus the subsidiaries.

Managing the supply chain in a sustainable way requires a suitable governance structure, a high level of process standardization, good data quality, and appropriate and implementable guidelines that are to apply to every business and legal entity in the KION Group.

It is the duty of the procurement organization to inform all individuals entrusted with procurement activities in the Group of the sustainability standards to be followed when selecting and evaluating suppliers. In order to underline the importance of sustainability across all Group organizations, the Group has put sustainability KPIs in place to measure the efficacy of its sustainability strategy. These KPIs also play an important role in supplier relationships and inform procurement decisions.

The KION Group's supply chain management thus designs and manages the flow of materials and information throughout the entire value creation process based not only on business criteria but also in terms of sustainability. This ensures that all important processes, from the procurement of the required materials to the completion of the end products and their delivery to the customer, are set up in a socially responsible and environmentally friendly way. However, the global procurement organization is exclusively concerned with the procurement of the required materials and the associated supplier management within the scope of these processes and procedures. Other areas of the KION Group and its subsidiaries are responsible for the subsequent stages from completion of the end product through to delivery to the customer.

In addition to procuring parts and services that make sustainable use of resources, the Group's goal is to ensure that the various parts of the value chain live up to certain defined standards in terms of human dignity, working conditions, and environmental compatibility. To this end, the KION Group is currently setting up an information and analysis system that records relevant data and information for effective supply chain management with regard to the main purchasing and material items.

Principles of supplier conduct

The Group has laid down specific requirements and rules of conduct for responsible procurement in the KION Group Code of Compliance and in the Principles of Supplier Conduct and obliges its suppliers to observe these requirements when entering into business agreements with KION Group companies. The Principles of Supplier Conduct contain clear environmental and ethical guidelines with regard to environmental, labor, and human rights standards and are available in three languages according to the most important procurement markets.

The KION Group's General Terms and Conditions for Purchasing as well as individually agreed contracts also specify in detail how obligations, applicable laws, and the KION Group's Principles of Supplier Conduct are to be complied with, and how transparency is to be ensured throughout the entire supply chain. All these regulations are binding for the entire KION Group with all its legal entities and are regularly checked to ensure that they are up-to-date and complete.

Three-level ESG Evaluation Program

For an objective and robust assessment of the sustainability risks and performance of its key suppliers, the KION Group has implemented a three-level ESG (environmental, social, and corporate governance) evaluation program utilizing the expert software-as-a-service (SaaS) platforms of EcoVadis and IntegrityNext. In 2022, KION started using the IQ platform from EcoVadis to conduct general sector and country risk analyses for all its direct procurement suppliers—i.e. those that manufacture materials for the Group's production operations—where the annual KION Group spend is over 100,000 euros, in order to better understand their sustainability risk profile (phase 1).

In a next step, the company began using the IntegrityNext platform and its self-evaluation questionnaire to assess the extent to which these direct procurement suppliers comply with human rights, labor, and environmental standards. Alternatively, the evaluation is performed using the EcoVadis supplier assessment. For this level, suppliers are asked to undergo a sustainability assessment based on a check of their documentation (phase 2). This program was adapted in 2023 to align even more closely with the requirements of the German Act on Corporate Due Diligence Obligations in Supply Chains (Lieferkettensorgfaltspflichtengesetz, LkSG), which led to the addition of an internal risk assessment (phase 3).

This multi-level assessment approach verifies suppliers' compliance with specific standards in the areas of HSE, anti-corruption and anti-bribery, product-related environmental protection, and upstream supply chain monitoring. Based on this, suppliers' compliance with human rights, employee rights, and employment standards can be checked first and foremost.

New suppliers are asked about their sustainability assessment as part of the supplier onboarding process and go through the above three-level ESG evaluation program. Existing suppliers are checked annually. These approaches give the KION Group a transparent way of tracking the sustainability performance of its suppliers and managing risks and opportunities related to the sustainability of the supply chain in a targeted way.

Percentage of Linde MH direct procurement spending on Tier 1 suppliers covered by phase 1 of the global ESG risk assessment (EcoVadis IQ):

2023	2022 ²	2021
90%	87%	

Percentage of Linde MH direct procurement spending on Tier 1 suppliers covered by phase 2 of an individual risk assessment (EcoVadis or IntegrityNext):

2023	2022	2021
69%	55%	25%

In July 2023, the KION Group made a commitment to the targets of the SBTi (Science Based Target initiative). This means that continually reducing CO₂ emissions within the KION supply chains is now a binding target. Since taking this step, CO₂ reduction and net-zero requirements are incorporated into supplier relationships and the tactical design of the supply chain. The global procurement organization works on an ongoing basis to develop and implement the methods, processes, and strategies required to achieve this target.

German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG)

The KION Group took the requirements of the 2021 German Act on Corporate Due Diligence Obligations in Supply Chains (LkSG) as an opportunity to closely examine its supplier evaluation and assessment program across all regions for direct and indirect procurement categories. The result of this examination is the three-level ESG evaluation program described above. Additional sustainability requirements supplement the new supplier evaluation processes.

A key element of the 2021 German Act on Corporate Due Diligence Obligations in Supply Chains is the training of in-house employees on the subjects of human and environmental rights in the supply chain. To this end, more than 80% of employees working in procurement completed training on the related initiatives in 2023. By carrying out this training, the KION Group wants to ensure that suppliers comply with human rights, labor rights, employment standards, and environmental protection requirements. Further training and coverage tracking are planned for 2024 as part of the comprehensive, three-level ESG evaluation program and other proactive sustainability initiatives.

Conflict Minerals and Conflict Areas

The KION Group's strategy aligns economic, environmental, and social aspects. The global procurement organization's top priority is to comply with all international laws and regulations while exceeding customer expectations. While not required to report on conflict minerals under the relevant European Union regulations, the Group recognizes the regulations and is working to include conflict minerals and conflict areas in the model for assessing and improving aspects of the sustainable supply chain. In order to improve transparency around these issues in the supply chain, the KION Group's General Terms and Conditions of Purchase require that suppliers submit the standardized Conflict Minerals Reporting Template (CMRT). KION has also decided to work with the SaaS platform provider Assent. Its compliance portal is used by more than 800 companies, and enables KION to analyze product-specific supplier data as well as identify smelters or refiners in its supply chain based on the submitted CMRTs, which must be communicated to KION annually by the suppliers.

Since 2022, the KION Group has participated in an annual industry initiative coordinated by Assent that specifically encourages smelters and refiners to undergo evaluations under industry-recognized audit programs. Over 200 companies have joined this initiative as signatories to a joint letter—which includes links to the auditing institutes. This accentuates the significance of auditing to companies that have yet to undergo an assessment.

The Group-wide Conflict Minerals Standard entered into force in 2023 in accordance with the Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas published by the OECD, the European Conflict Minerals Regulation (EU) 2017/821, and the US Dodd-Frank Act. The KION Group has clearly formulated its own commitment with this standard. Its expectations of its global suppliers with regard to conflict minerals are set out in the KION Principles of Supplier Conduct. This standard applies to all KION Group companies worldwide and to all employees, in particular those involved in the development and procurement of goods and services.

Footnotes:

[1] In pursuing a cross-brand and cross-regional development approach, the KION Group is aiming to achieve uniform standards and global coordination of technical activities. Functions such as research and development, procurement, quality, and sustainability management have been bundled and are part of the KION GROUP AG Executive Board portfolio of the Chief Technology Officer (CTO).

[2] ESG evaluation (phase 1 and 2) only in place since 2022.

[3] EcoVadis was introduced back in 2019.

Social Engagement

SOCIAL ENGAGEMENT



Sustainability also means social responsibility. As a model corporate citizen, Linde MH supports the positive and sustainable development of society—especially where its customers, employees, and their families live and work. The company focuses on social and humanitarian issues, but also aims to promote education, science, and environmental protection. The CSR approach focuses on the local level. After all, local teams know best when it comes to deciding which local projects to support. Linde MH employees demonstrate a great deal of commitment in this area and always get actively involved.

Linde MH is guided by the KION Group’s donation and sponsorship policy, which governs social engagement, responsibilities, and the relevant decision-making processes. In 2020, the guidelines were revised and optimized Group-wide. They cover both financial donations and charitable voluntary work, meaning decisions can be made quickly and pragmatically on the spot and help can be provided quickly in an emergency, for example in the event of a natural disaster.

The KION Group Code of Compliance also contains relevant information and provides legal certainty for local managers. All donations and sponsorship activities are reviewed and approved in advance by the Compliance department. Donations must always be transparent, follow set principles, and comply with the KION Group’s values and rules as well as with relevant legislation.

The KION Group always draws a clear line between donations and sponsorship activities in social engagement. Donations are voluntary monetary or in-kind contributions to a charitable organization, made without the expectation of anything in return. Sponsorship, on the other hand, is linked to receiving something in return, for example advertising or marketing opportunities. It is therefore vital that the recipients’ intended use aligns with the KION Group’s values or principles.

Linde actively supports the social and humanitarian sector with a number of initiatives such as “Linde Solidaria,” “Les Restaurants du Cœur,” and “StaplerCup hilft e.V.” Funding is also available for educational, scientific, and environmental projects.

Linde Solidaria

The Linde Solidaria program was launched in 2006 and is based on two main pillars: the voluntary work of Linde Material Handling Ibérica employees and annual donations. These activities are carried out in cooperation with recognized institutions wherever Linde MH has branches. The program supports people with special needs and those who are at risk of social exclusion.

Linde Material Handling Ibérica and its dealer network support initiatives of all kinds through donations and volunteer days. The Linde Solidaria program also supports specific projects, for example by lending trucks to organizations such as food banks or the Red Cross.

Every year, dozens of employees from the branches, together with their families and friends, help to organize charity events for institutions that play an important role in society and have a big influence on the community where they live. In honor of these events, Linde Material Handling Ibérica makes a donation that is then used throughout the year to purchase materials and upgrade the equipment and facilities at the centers. This helps to improve the quality of life of the people who visit these centers.

Stacking for a Good Cause

Every year, StaplerCup hilft e.V. supports charitable organizations and institutions from the Aschaffenburg region with monetary donations. In 2023, the association presented a check worth 10,000 euros—the sum raised by the trainees at Linde MH during the StaplerCup 2023—to aid organization Aschaffenburger Kinderträume e.V., which is dedicated to supporting children with serious illnesses and disabilities as well as young people affected by war, famine, or environmental catastrophes. Additional donations were raised in the amount of 1,000 euros for the Kinderschutzbund Aschaffenburg child protection association and 5,000 euros for Kinderclowns, a group that visits Aschaffenburg Hospital to entertain the children there.

In the year under review, the entire proceeds from the entry fees for the StaplerCup are once again supporting a social institution in the region. Essener Elterninitiative zur Unterstützung krebskranker Kinder e.V., a parents’ initiative to support children with cancer, thus received a check for 1,000 euros in the run-up to the StaplerCup. Founded in 1983 and funded mainly by donations, the association’s aim is to take on small and big worries alike by working together and to help parents who often lack the strength to tackle everyday responsibilities when their child is ill. Thanks to the many forklift drivers who took part in the StaplerCup this year, Linde Material Handling Rhein-Ruhr was also able to make a small donation to the charitable association’s “Elternhaus für Betroffene” project, which is a parents’ house for affected families. The presented donations underscore StaplerCup hilft e.V.’s ongoing commitment to the region and its aim of influencing the community in a positive way through social projects.

Disaster Relief

The devastating earthquake of February 6, 2023, left millions of people in the Turkish-Syrian border region grappling with the consequences of the disaster of the century. Thousands of people died and hundreds of thousands are still homeless, their homes destroyed or left too unsafe for them to return. One way in which employees could show solidarity with those affected in the region was by dedicating a chosen number of credit hours via the HR department as a donation to the German Red Cross. The German Red Cross was actively involved in rescuing those trapped following the earthquake and in providing care and accommodation for those affected. Donations for earthquake relief from the KION Group as a whole have now exceeded the considerable sum of a quarter of a million euros—the continuing solidarity shown by employees from around the world has been extremely impressive.