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# UN Global Compact - Communication on Progress

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**LIEBHERR**

Liebherr-MCCtec GmbH



## WE SUPPORT



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<b>Scope:</b>	<p>Unless otherwise stated in the report, the information refers to the divisional control company of Maritime Cranes and Construction Machinery, Liebherr-MCCtec GmbH, including the following manufacturing companies:</p> <ul style="list-style-type: none"><li>– Liebherr-Werk Nenzing GmbH</li><li>– Liebherr-MCCtec Rostock GmbH</li><li>– Liebherr Container Cranes Ltd.</li><li>– Liebherr Sunderland Works Ltd.</li></ul>
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<b>Further reading:</b>	Annual Report 2021 of the Liebherr Group of companies (Link)

# Statement of continued support – Foreword by the board of management

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Dear Stakeholders

As a family-owned company, we have a big responsibility to society and the environment. We are convinced that we can only be successful over the long term when we take this responsibility into consideration in all our actions. The protection of people and the environment, as well as sustainable management, are very important in our business activities. Already thinking about tomorrow today, will continue to be one of our guiding principles.

We are pleased to confirm that Liebherr-MCCtec GmbH reaffirms its support of the Ten Principles of the United Nations Global Compact in the areas of human rights, labour, environment and anti-corruption.

In this first Communication on Progress, we describe our actions to continually improve the integration of the global compact and its principles into our business strategy, culture, and daily operations. We also commit to sharing this information with our stakeholders using our primary channels of communication.

Yours faithfully



**Leopold Berthold**  
Managing Director



**Rudolf Ganser**  
Managing Director



**Dr. Reinhard Krappinger**  
Managing Director



**Markus Schmidle**  
Managing Director

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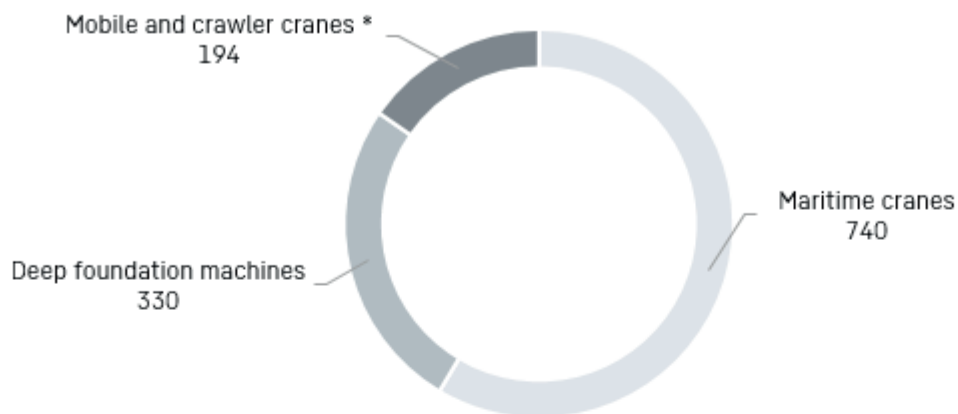
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# Company

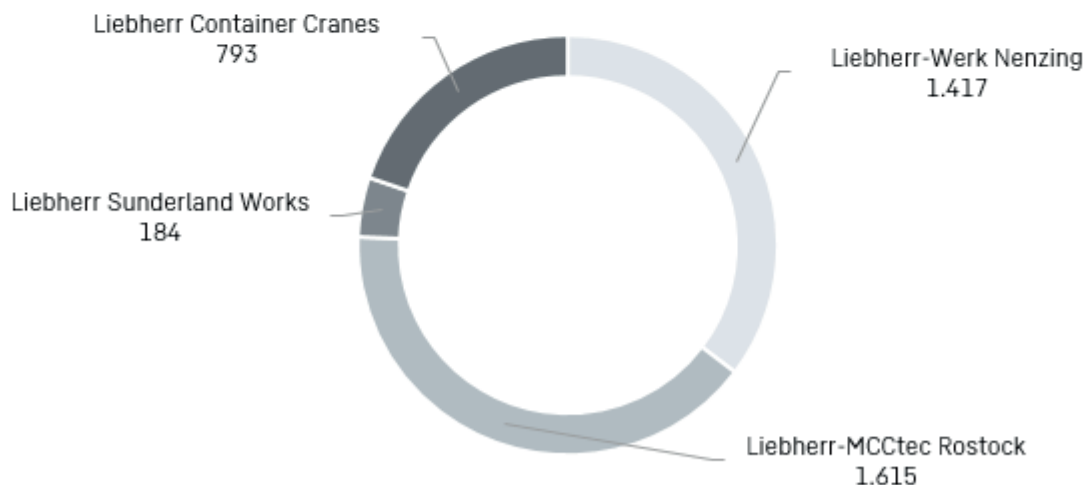
Liebherr-MCCtec GmbH, with its headquarter in Nenzing, Austria, is one of eleven divisional control companies of the Liebherr group. It coordinates all business activities in the field of maritime cranes and in sub-segments of

construction machinery. The company is responsible for the strategic management of the four production sites in Nenzing (Austria), Rostock (Germany), Killarney (Ireland) and Sunderland (Great Britain).

Turnover by product segment in 2021, in m EUR



Number of employees by location in 2021, in head counts



\* share of Liebherr-MCCtec's turnover (crawler cranes with lifting capacity of up to 400 tonnes) in the overall turnover of the product segment





## Organisational structure

Liebherr is an independent, wholly-owned family-run company, which is managed as a decentralised group. Independently operating divisional control companies – such as the Liebherr-MCCtec GmbH – are responsible for the activities in the individual product segments. The parent company of the group is Liebherr-International AG. It executes managerial, coordinating and monitoring functions.

The independently operating divisional control companies are responsible for their operational management. Accordingly, research and development, production, marketing or sales for individual product segments are also decentralised. The diversified product portfolio and the decentralised company structure with its independently operating business units allow Liebherr to be able to respond flexibly to market signals in the face of global competition.

# Production sites



## **Liebherr-Werk Nenzing GmbH**

Amid the Austrian Alps, Liebherr-Werk Nenzing GmbH specializes in construction machines. The company has established itself as an innovation leader worldwide. The portfolio of construction machines includes crawler cranes and duty cycle crawler cranes, as well as piling and drilling rigs. Digital solutions and services for the construction site of the future complete the product range.



## **Liebherr Container Cranes Ltd.**

Liebherr Container Cranes Ltd. has over 50 years of experience in crane development and manufacture. In 1958 Hans Liebherr founded the company in Ireland as the first manufacturing plant outside of Germany. At the Killarney plant in the Southwest of the country, the company produces ship to shore container cranes, rubber-tyred and rail-mounted stacker cranes, and accessories. Liebherr container cranes are in use in over 100 ports and nearly 50 countries worldwide.



## **Liebherr-MCCtec Rostock GmbH**

With its direct link to the Baltic Sea, Liebherr-MCCtec Rostock GmbH provides the optimal conditions for development of ship, mobile harbour, and offshore cranes. Additionally, reachstacker and components for container cranes are manufactured here.



## **Liebherr Sunderland Works Ltd.**

Liebherr Sunderland Works Ltd. produces ship cranes, offshore cranes, special cranes and reachstackers. The company was founded in 1989. Liebherr took over at that time the facilities of the Deptford Wharf, the oldest wharf in the United Kingdom, in the port city of Sunderland. The company set up a modern production plant for maritime cranes in Sunderland close to the mouth of the River Wear.

# Products, digital solutions and services

Liebherr-MCCtec GmbH develops, manufactures, sells and services a wide range of construction machinery, maritime cranes, port equipment as well as digital solutions. The product portfolio includes:

## **Crawler cranes:**

The hydraulically driven crawler cranes with lattice booms have outstanding performance features: mobility and versatility, durability and reliability, quality and economy. Crawler cranes with lifting capacity of up to 400 tonnes are part of the product portfolio of Liebherr-Werk Nenzing.

## **Duty cycle crawler cranes:**

Duty cycle crawler cranes (HS series) impress through their robust design in tough assignments on the construction site. A variety of add-on equipment makes them the ideal choice for numerous applications. The most frequent attachments are slurry wall grabs or casing oscillators as well as grabs and dragline buckets for material handling.

## **Piling and drilling rigs:**

Deep foundation machines are well known throughout the world for highest economy through maximum capacity utilization. The machines are high-performance even under extreme conditions, reliable in non-stop operation, versatile in terms of application, and cost-efficient in operation.

## **Ship cranes:**

Liebherr ship cranes include wire luffing and cylinder luffing slewing cranes as well as special design cranes.

## **Mobile harbour cranes:**

Mobile harbour cranes are a key asset for handling all types of cargo from containers to bulk commodities, general cargo and even heavy lifts.

## **Offshore cranes:**

The product portfolio of offshore cranes includes general purpose and heavy lift cranes. For wind, oil and gas applications, Liebherr provides various crane series with ram and rope luffing systems and with conventional slewing bearings.

## **Ship to shore container cranes:**

The product portfolio ranges from the Panamax size category up to the latest generation of Megamax cranes and beyond.

## **Rubber-tired container stacker cranes**

in the RTG model series are characterized by their extremely high performance as the result of their unique hoist rope reeving arrangement.

## **Rail-mounted stacker cranes**

in the RMG model series are available with customized spans and reaches thus making them ideal for individual port solutions. Additionally, they use state-of-the-art control and monitoring systems as well as the latest technologies for automatic container positioning.

## **Digital solutions:**

Complete solutions emerge from the connection of our products to the digital world, which optimise the day-to-day work of our customers and raise performance and handling to the next level. Digital solutions such as Crane Planner 2.0, LiDAT smartApp and LIPOS optimize the planning and operations processes on the construction site and in maritime areas. Connected machines can be operated more efficient and more productive and are even safer.

## **Digital services:**

Remote services where service technician experts conducting troubleshooting and maintenance via an audio-video connection not only avoid travelling but also reduce the meantime to repair.



# Sustainability Management

As a part of a family-owned global group, we have a big responsibility to society and the environment. We are convinced that we can only be successful over the long term when we take this responsibility into consideration in all our actions. The protection of people and the environment, as well as sustainable management, are very important in our business activities. For our products and their manufacture this means that they must be safe, efficient and environmentally compatible. We think in terms of generations and not in calendar quarters, which is why economic sustainability has always been paramount for us. Ultimately, for us as a family-owned group we attach huge importance to conducting our business activities with integrity. We treat our staff with respect, and we are committed to fair competition in all markets in which we operate. In its long history the Liebherr group has successfully grown through responsible, future-oriented action.

## Liebherr Core Values

The core values of the Liebherr group reflect our corporate culture and are the firm foundation of our long-term success.

### **We are independent**

“Our independence enables us to take decisions rapidly and autonomously.”

### **We are a trustworthy partner**

“We aim to maintain our consistency and trustworthiness for many years to come.”

### **We are innovative**

“We work systematically to keep one step ahead.”

### **Our employees are a key factor in our success**

“We greatly appreciate the degree to which our employees identify with their company.”

### **Highest quality in everything we do**

“We devote all our efforts to best performance.”

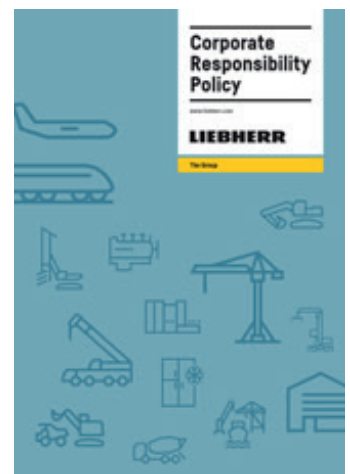
### **We accept responsibility**

“We aim at all times to fulfil our responsibility to society in general and to the environment.”

## Corporate Responsibility Policy

The company's strategic focus on sustainability was summarized in the **Corporate Responsibility Policy**. The policy includes the company's **commitment** regarding

- energy consumption and greenhouse gases
- pollution and water consumption
- materials, chemicals and waste
- product use and end of useful life of products
- occupational safety and health protection
- working conditions, career management, training and education
- social dialogue
- diversity
- prevention of discrimination and harassment
- anti-corruption and anti-competitive practices
- responsible information management
- protection of personal data
- responsible corporate management
- sustainable procurement



The relevant parts of the CR policy referring to the Ten Principles are stated in the next chapter under the sections “Our policy” below.

# Our contribution to the Sustainable Development Goals (SDGs)

With our Corporate Responsibility Policy, we also underscore our contribution to the **Sustainable Development Goals** (SDGs), which were introduced 2015 by the United Nations as part of a common agenda 2030. The aim of the agenda 2030 is to eliminate fundamental injustices and barriers to participation in development and prosperity by 2030. At Liebherr, we feel strongly committed to the goals and the spirit of the SDGs. We are intensifying our efforts at relevant points of leverage, supporting the following 9 of the 17 goals in particular:

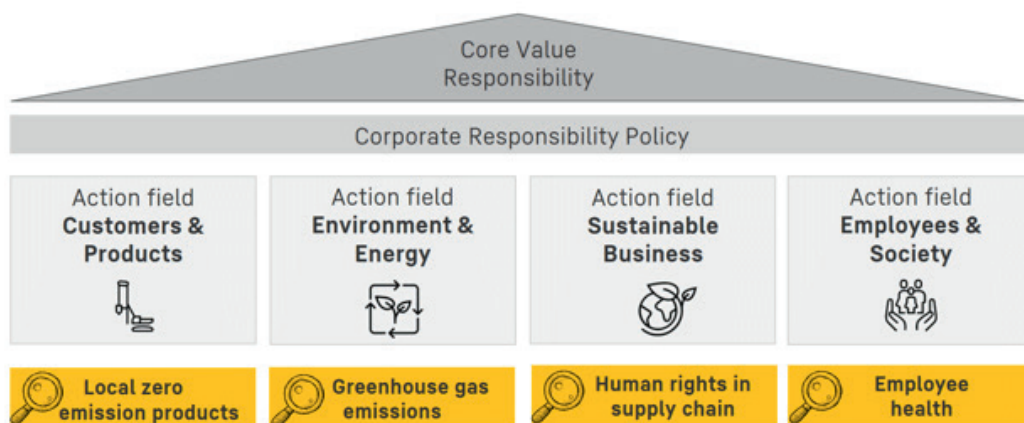


## Management approach

The core values of the Liebherr group are the foundation of all our actions. Responsibility and care for the environment has always been a key component of Liebherr philosophy.

On the strategic level, Liebherr-MCCtec defines **4 major fields of actions**. Below each action field, we focus on one or more **material topics**. A topic is considered to be material, when it is highly relevant for internal and for external stakeholders. Currently our material topics are:

- The development, production and sales of zero local emission products
- The collection and calculation of direct and indirect greenhouse gas emissions of the Liebherr-MCCtec GmbH (Scope 1-3 according to GHG Protocol Corporate Standard)
- Demanding respect of human rights and compliance from our suppliers
- Taking action to improve employee health and safety



# Responsibilities

The board of management at Liebherr-MCCtec has assigned the Managing Director for design and engineering of construction machinery, with Corporate Responsibility duties. At the beginning of 2021, the permanent position of a Corporate Responsibility manager was established in order to improve the harmonisation of individual measures across the four manufacturing companies. The Corporate Responsibility manager is supported by representatives from environmental management, occupational safety, human resources, quality management, strategic marketing and communication, supply chain management, product management and customer service as well as industrial engineering of the individual sites.

## Rating

In 2021, Liebherr-MCCtec GmbH have been awarded a gold medal from independent business sustainability rating provider **EcoVadis**. EcoVadis is one of the world's most trusted business sustainability rating supplier with over 90,000 companies participating. The gold medal for Liebherr-MCCtec places us in the top 3 % of all rated companies for sustainability in our industry.



EcoVadis score sustainability using indicators in four key areas: environment, labour and human rights, ethics and sustainable procurement. Our gold medal from EcoVadis marks a clear progression from the silver medals awarded in 2019 to Liebherr Con-tainer Cranes in Ireland and Liebherr-MCCtec Rostock in Germany. It signifies progression and a validation of our corporate responsibility policies and approach.

# Progress on the ten principles

## Human rights

- Principle 1** Businesses should support and respect the protection of internationally proclaimed human rights.  
**Principle 2** Businesses should make sure that they are not complicit in human rights abuses.

### Our policy

#### Human rights

According to the policies of the Liebherr Group the Liebherr-MCCtec does not practice any child or forced labour in its companies. The company respects human rights and does not discriminate based on age, gender, religion or origin and takes an open approach when it comes to its employees with disabilities.

In the Group's Supplier Code of Conduct, our suppliers are required to undertake to fulfil their social responsibility towards employees and the company in a broader sense. In this context, we demand our supplier to pay particular attention to the following aspects:

- Ban on forced labour and child labour
- Ban on discrimination and unequal treatment
- Exercising employee rights
- Complying to the applicable laws and regulations regarding working hours and remuneration
- Complying to applicable laws and regulations regarding conflict minerals

### Actions and outcomes

All four manufacturing companies of the Liebherr-MCCtec are located in European countries (Austria, Germany, Ireland, United Kingdom). These nations all have **high human rights standards and strict statutory regulations regarding human rights**, occupational safety, equal treatment and working conditions in place. Working hours, minimum wages and salaries are based on collective agreements or company agreements reached between management and works council.

The **level of vertical integration** of our production process is up to 70% due to the fact that many components are manufactured at our own facilities or in Liebherr sister companies. Most of our tier-1 suppliers are located in Europe. We prioritise **local suppliers** whenever possible. In 2021, we have specified our expectations regarding social responsibility, occupational safety, environmental obligations and other compliance aspects in a **Code of Conduct for Suppliers**. All our suppliers were requested to declare compliance with the principles and requirements of this Code of Conduct. It forms part of new and existing contractual relationships between Liebherr and its suppliers. In 2022 it is planned to conduct first on-site **CSR audits** at our suppliers.

## Labour

- Principle 3** Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.  
**Principle 4** Businesses should uphold the elimination of all forms of forced and compulsory labour.  
**Principle 5** Businesses should uphold the effective abolition of child labour.  
**Principle 6** Businesses should uphold the elimination of discrimination in respect of employment and occupation.

### Our policy

#### Occupational safety and health protection

The Liebherr group pledges itself to avoid damage to people, property and the environment in all its business activities. At all times we aim to create a safe and healthy work environment for our employees. Occupational safety and ergonomic workplaces ensure a healthy and satisfactory work environment and play an increasingly important role in our everyday work life. With qualified safety personnel and a health and safety management system, which is based on the requirements



of the applicable standards, local legislation, risk assessments and defined processes and procedures, we ensure within the Liebherr group that the risks for human well-being and the environment are minimized in all our companies. In addition, the health and safety standards for employees are communicated regularly in training courses and are also checked and adapted if necessary.

### **Working conditions, career management and training and education**

Our employees are key to our corporate success through the passion with which they engage in their daily work. Our aim is to promote a trusting cooperation for the benefit of our employees and the company and to create the necessary conditions so that our employees also remain highly motivated and loyal to the company for years to come. We attach huge importance to personal appreciation, fairness and a broad range of development opportunities and promote the development and recruitment of specialists and managers from within the company. In addition, we attach huge importance to the professional training and education of apprentices and trainees. With social benefits exceeding the legal minimum requirements and a wide range of training measures we ensure that the group continues to be an attractive employer in the future.

### **Social dialogue**

We respect and promote the right to social dialogue between company and employees. There are works council structure and organized trade representations together with collective bargaining systems in various subsidiaries. Our aim is to preserve our longevity and trustworthiness in the active exchange of information and ideas and interaction with our staff and their representatives. We also maintain a close and active working relationship with our customers and business partners, which is characterized by trust and fairness. We focus on the long-term orientation of the group, and not on the short-term success.

### **Diversity, discrimination and harassment**

Cooperation within the Liebherr group, but also with third parties, should always take place on a basis of decency, mutual respect, fairness and trust. Open communication is to be undertaken at all times. Personal insults, discrimination or sexual harassment between employees are not tolerated. Due consideration is to be paid to protecting each employee's private life. The selection and promotion of employees is to be based on their suitability for the proposed activity, regardless of race, age, gender, nationality, religion, sexual orientation or invalidity or disability. We actively promote a diverse and fair working environment through several preventative initiatives and training measures.

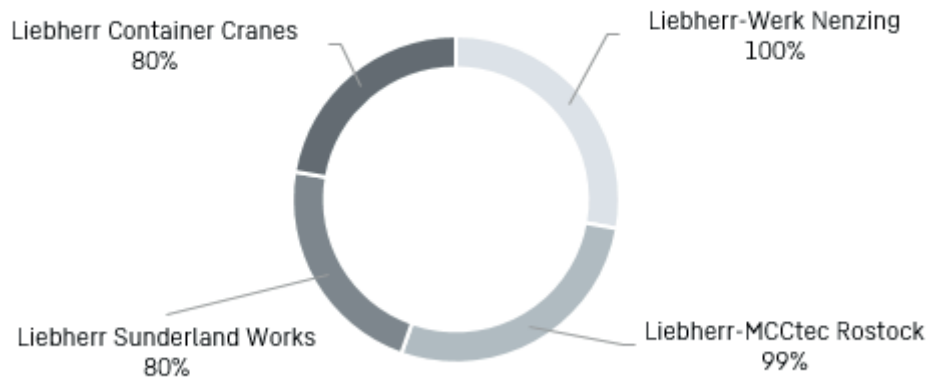
### **Actions and outcomes**

Dedicated occupational **safety committees**, consisting of company doctors, safety specialists and safety representatives in the local departments, take care for safe and ergonomic workplaces at our sites. In accordance with legal regulations, all employees undergo an annual **safety training course**. External contractors are briefed with our safety instructions. At the same time, we train basics of ergonomic work design and environment-related topics. All employees are insured in the event of an occupational accident.

Our **health managers** and **HR departments** take action to promote health and wellbeing of our employees, including provision of personal protective equipment and height adjustable tables, healthy lunch menus from regional products in the inhouse canteens, or the organization of sport courses, company events as well as health days. The employee catering is financially supported by the company. In 2021, a comprehensive **employee survey** on employee health was conducted at the Rostock site and action plans were developed are currently being implemented. In the second year of the **Covid-19 pandemic**, Liebherr-MCCtec continued to give priority to the health of employees. Actions included amongst others: performance of Covid-19 antigen tests for employees and visitors, organization and carrying out of vaccines for employees by company medical staff, issue of protective masks, arrange for minimum distances at company sites, and extension of digital workplaces and virtual collaboration possibilities, regular communication of legal and company guidelines on hygiene measures for containing the pandemic as well as set-up of a Covid-19 hotline for staff.

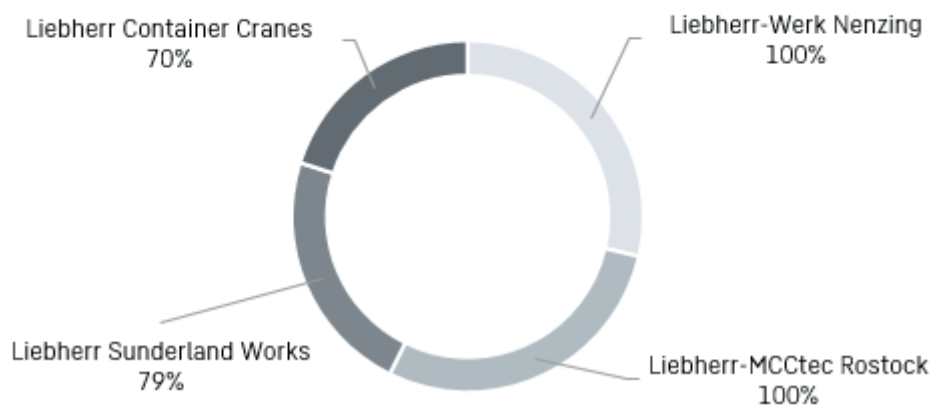
Office workers have **flexible working hours** and the possibility for **mobile (remote) working**, which was extended considerably during 2021 to contain Covid-19 infections. We offer secure jobs and focus on a long-term relationship with our employees. That's why more than 90 percent of the employees have **permanent contracts**. Low hierarchical levels encourages our staff to take on responsible tasks with ample freedom of action.

### Employees with permanent contracts by location in 2021



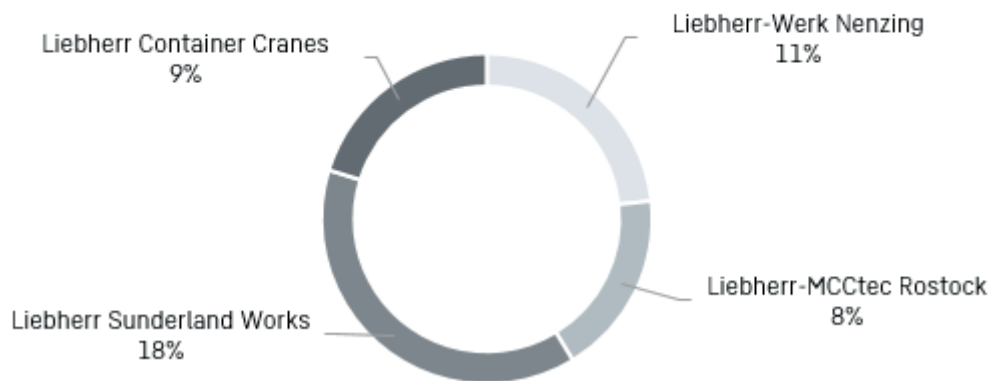
**Works council** and **trade union** representatives represent the interest of the employees and are in regular exchange and negotiation with the employer's representation. Works council members are elected by the staff on a regular basis. **Workers' meetings** can be convened as needed, such as during the wage negotiation period. The daily working hours are governed by the applicable statutory regulations, collective bargaining and company provisions. **Collective agreements** apply to more than 80 percent of all employees at Liebherr-MCCtec.

### Workforce covered by formally-elected employee representatives in 2021



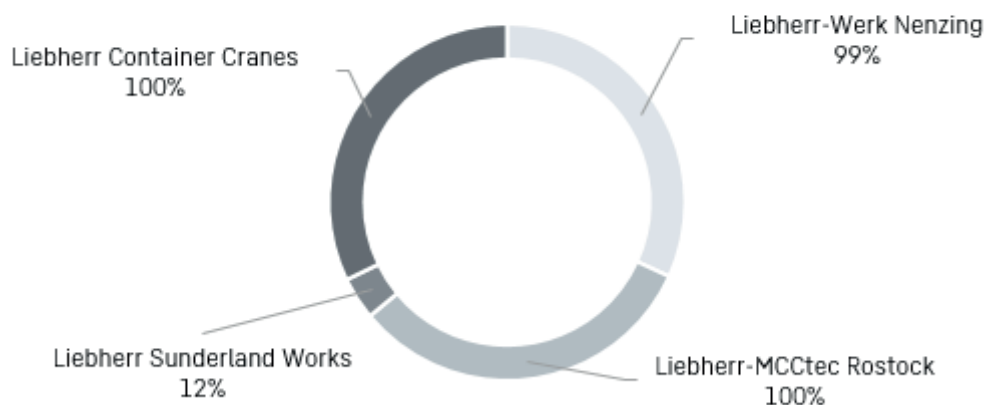
A major focus of 2021, as in the years before, was to attract talented and qualified employees and to develop their skills systematically. Through **vocational training** and **dual study programs**, we are able to secure a large part of the junior staff we need. In 2021, one in 10 employees of the Liebherr-MCCtec was an apprentice. The offered **apprenticeships** include professions like office administrator, logistics specialist, design engineer, application developer, electrical engineer, steel and welding technician, mechanical engineering technician, painting technician, IT specialist or mechatronics technician. In accordance with special training plans, all apprentices and trainees pass through various specialist departments via the rotation principle. In addition, numerous school projects as well as **bachelor's and master's theses** were again supervised by specialists from a wide range of disciplines in 2021.

### Apprentices in relation to total employees in 2021



Due to the Covid-19 pandemic, there were less face-to-face **trainings** held during the year 2021. Nevertheless, many of the trainings were conducted as online-training or e-training via our corporate **blended learning platform** TELL. The “Fit for service” training for service engineers was one of several newly created skill development trainings, conducted in 2021. The internal and external auditors at Nenzing and Ros-tock received either a basic training or refresher course on auditing. Moreover, all employees with management responsibilities undergo a comprehensive **leadership training program**.

### Employees who received skill development training in 2021



Our Code of Conduct underscores that Liebherr respects and protects human rights, tolerates neither discrimination e nor harassment and promotes diversity. The whistleblowing system provides employees and externals a platform for **reporting breaches** to our Code of Conduct to the compliance department – anonymously if they wish – for example, on discriminatory statements. We work together across generations, taking account of the age groups' various needs and offering **part-time working** models adapted to the employee's life stages. Dedicated representatives of the work councils at the Rostock site give a voice to the interests of our **employees with disabilities** and **victims of bullying**. National **Equal Treatment Acts** are applicable to all our manufacturing companies. We have dedicated policies for equality, dignity at work as well as maternity and paternity.

# Environment

<b>Principle 7</b>	Businesses should support a precautionary approach to environmental challenges.
<b>Principle 8</b>	Businesses should undertake initiatives to promote greater environmental responsibility.
<b>Principle 9</b>	Businesses should encourage the development and diffusion of environmentally friendly technologies.

## Our policy

### Energy consumption and greenhouse gases

We continuously strive to lower our impacts on the environment, and in particular to reduce CO<sub>2</sub> and other harmful emissions, through conscious behaviour and innovative products. Optimal energy efficiency and emission reduction is taken into consideration at all levels of the company, from the early development phases of our products through to optimisations in our work processes. Beyond our inhouse responsibility, we also aim to effectively support our customers in reducing greenhouse gas emissions through these measures. Environmental and energy management in our subsidiaries is based on the applicable standards, corporate policies and the national environmental and energy regulations. This is checked on a regular basis, thus giving us the opportunity to continually identify the need for improvement and adopt corresponding measures.

### Pollution and water consumption

The various development and manufacturing activities of our subsidiaries also entail specific environmental risks. We implement procedures to minimise and – where possible – avoid environmental pollution. The principal priority is to avoid production-related or accidental environmental pollution. For this purpose, work instructions on avoiding production-related pollution and emergency plans on adopting countermeasures in the event of an accident are compiled and updated. Water is a valuable resource. We aim to optimise and reduce our water consumption also within the Liebherr group. In addition, we take measures to prevent the pollution of groundwater.

### Materials, chemicals and waste

We are committed to minimising the amount of waste within the Liebherr group through the efficient use of raw materials and pursuing a reduce, reuse, recycle approach for waste materials in the entire group. It is therefore the responsibility of everyone to ensure that waste management is planned, controlled, implemented and monitored according to procedures in place. Particular attention is required here when handling hazardous waste and substances. Within the Liebherr-MCCTec we ensure through suitable measures that the applicable material compliance rules are observed.

### Product use and end of useful life of product

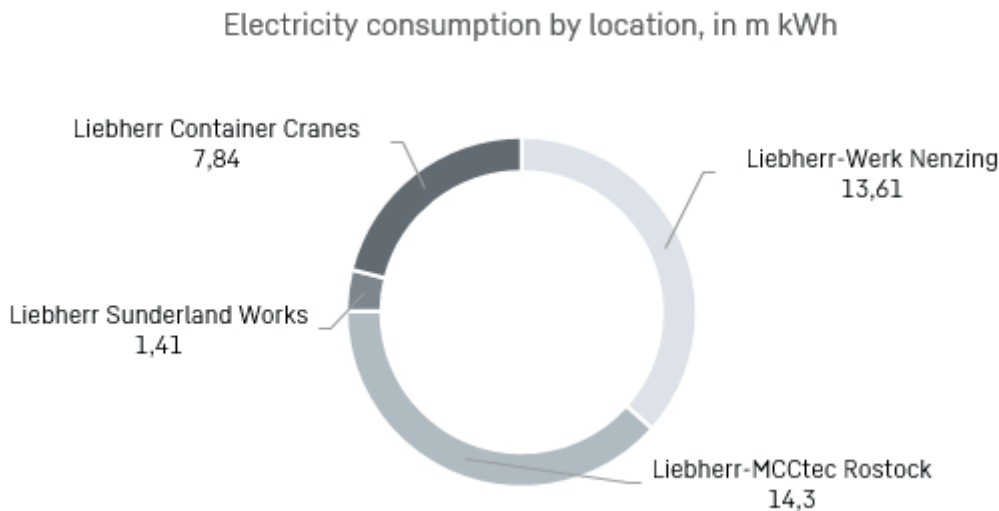
As a group, we are committed to responsible and respectful treatment of the environment and natural resources. This applies in particular to the development and use of new products and manufacturing technologies. The reduction of all kinds of emissions protects both the environment and staff. Thanks to the minimisation of emissions our products can also be used in sensitive working environments. For all these reasons sustainability aspects are considered by us on every product level, from development to packaging and use through to the end of the useful life of the product. Our focus on high quality and excellent service ensures a long life of our products. Targeted upgrading or retrofitting, as well as the reconditioning of essential components of our products, improve their versatility, open up new applications and enables a sustainable extension of their life. The reconditioning of essential components of devices and equipment manufactured by us enhances the responsible treatment of important resources. The products of our group offer a high degree of recyclability at the end of their useful life. We are constantly working on developing innovative and intelligent customer service solutions, which not only increase the performance of the machines when in use, but also save costs and extend their service life. We implement modular concepts in the product design, develop more efficient and environmentally friendly solutions and advanced automation and drive systems. With its open approach to technology, the Liebherr group makes an active contribution to achieving the global emission reduction targets in product development.

## Actions and outcomes

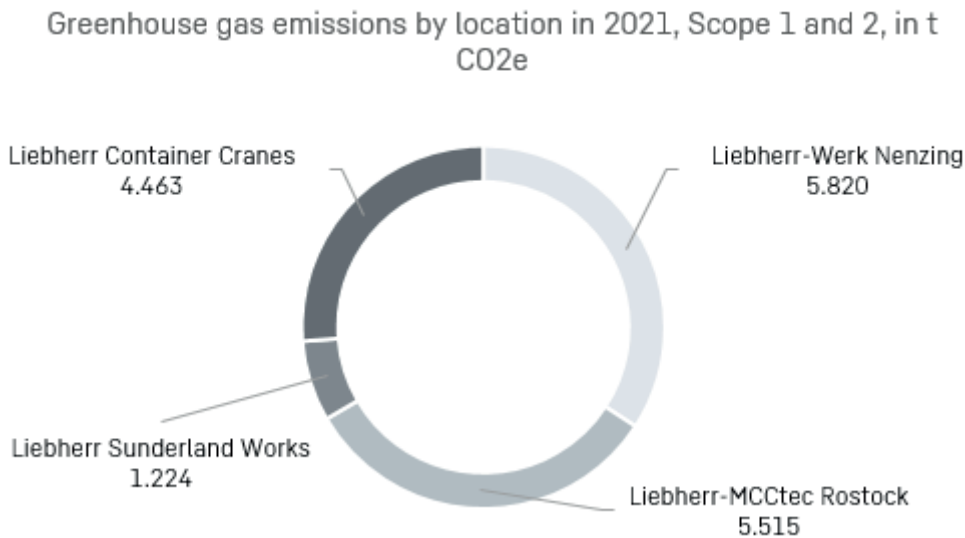
In 2021, we have implemented several **energy efficiency measures** at the individual locations, including the continuous conversion of the lighting in buildings and shop floors to LEDs, the condition-based control of the ventilation system, the automatic switching off of office building lighting at the end of the working day or the introduction of energy monitoring measures. At our site in Nenzing, employees are encouraged to (besides using the **free company bus service**) **commute with bicycles** by providing them with free bicycle parking and e-charging stations, as well as changing facilities. There are also **e-charging stations** for private and company cars available at Nenzing and planned to be installed in Rostock soon. Environmental and energy management systems are implemented at all sites, the plant in Rostock additionally has an **ISO**



**50001 certification.** The purchase of electricity is gradually changed to **renewable energy sources** and the first photovoltaic systems are planned to be installed in 2023.

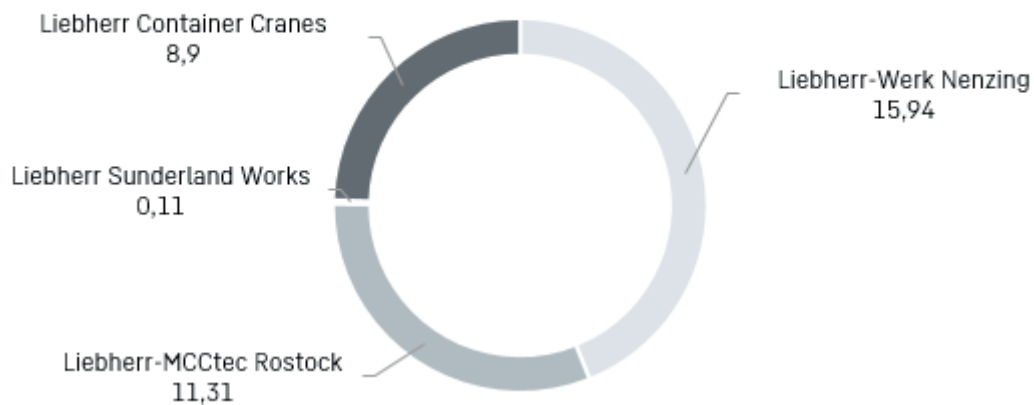


One of the current material topics is the **analysis of CO<sub>2</sub> emissions** of products and company activities. Scope 1 and 2 emissions of the Liebherr-MCCtec have been assessed in 2021, followed by a currently ongoing **analysis of scope 3 emissions** according to the Greenhouse Gas Protocol Standard.



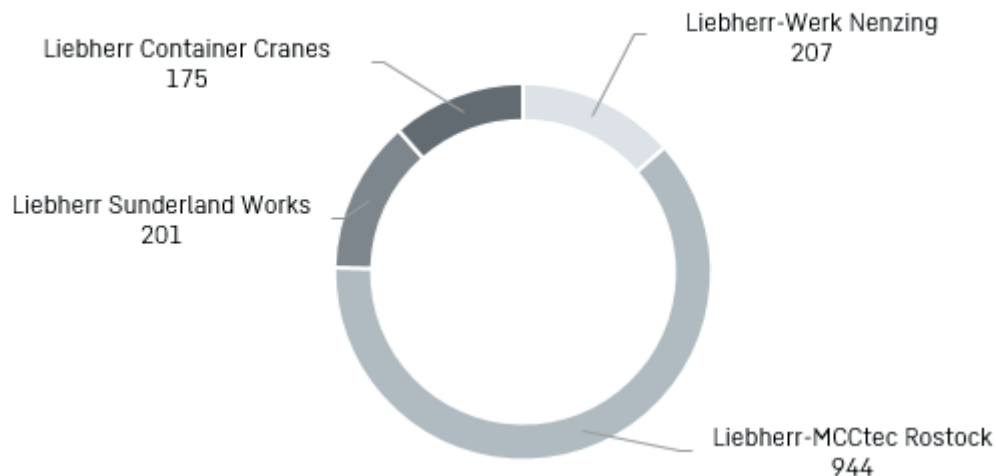
Oil contamination of **groundwater is prevented** by a specially trained fire fighters or personnel who is equipped with containers with immediate prevention materials. In Rostock, there were new **waterless urinals** installed in order to reduce water consumption. Preventive **maintenance** of the sewer network was carried out at Nenzing. Additionally, there are special drainages and environmentally friendly exhaust **air filter systems** installed in all paint shops for the prevention of water contamination and the reduction of harmful emissions to air. Local air pollutions could be reduced by using working platforms and risers **operated with HVO** and floor vehicles converted to **electric drive systems**. Regular noise surveys take place to check compliance with noise limit values at our production sites.

### Water consumption by location in 2021, in m liters



Around 90 percent of the material used in our products is steel, which is recyclable to a high extent. Every manufacturing company has a **waste recycling program** in place. Our internal procedures ensure that residual and hazardous waste is disposed according to local requirements and through licensed recycling companies only. Together with our suppliers we worked on solutions to **reduce packaging waste of purchased products**. Some packaging was changed from single-use packaging to reusable packaging. Furthermore, we reached agreements with several supplier so return rope reels and other reusable packaging to them. Additional **local initiatives** included for example, the reuse of hydraulic oil (saving 8630 liter in 2021), use of biodegradable oils or the donation of wood waste or used office supplies to employees for private usage.

### Hazardous waste by location in 2021, in t

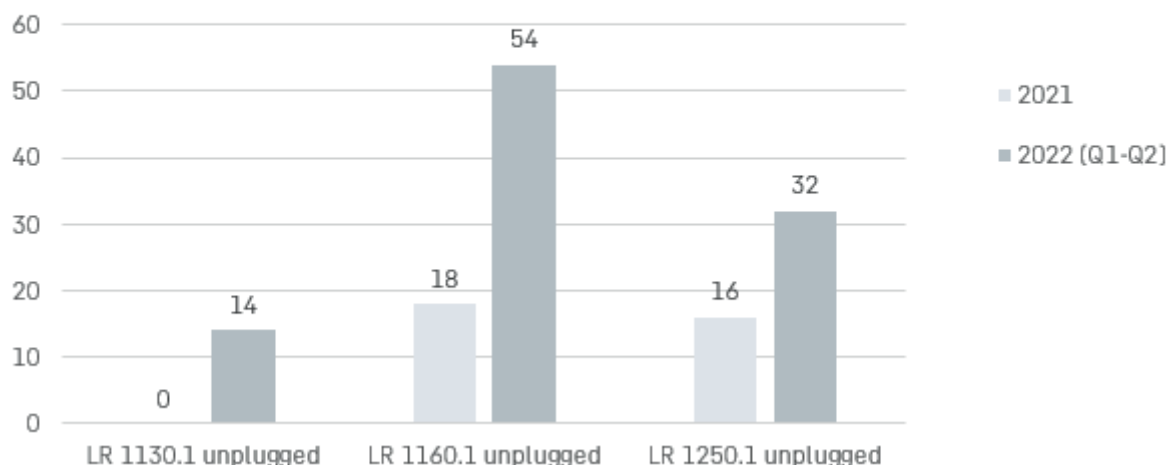


Within the framework of our **Remanufacturing programme (Reman)**, we transform used components into new parts in accordance with industry standards. The program is constantly being improved. It includes important components such as diesel engines, hydraulic components, gearboxes and lots more: an analysis by an external expert consultant showed that there is a saving potential of more than 50% of CO<sub>2</sub> for key diesel engine components like crankcase and crankshaft. Additionally, up to 75% of raw materials and energy can be saved.

One of the focal points in the reporting period was the development of products with alternative drives. Three new crawler crane models of the **unplugged-series** were launched: the LR 1130.1 unplugged, the LR 1160.1 unplugged and the LR 1250.1 unplugged. They are one of the world's **first battery-electric-powered crawler cranes**. During operation the cranes can be connected to a conventional electric supply or operated without a cable, therefore "unplugged". Overall, there are already more than 20 machines of our unplugged-series in operation on all continents. Research and development

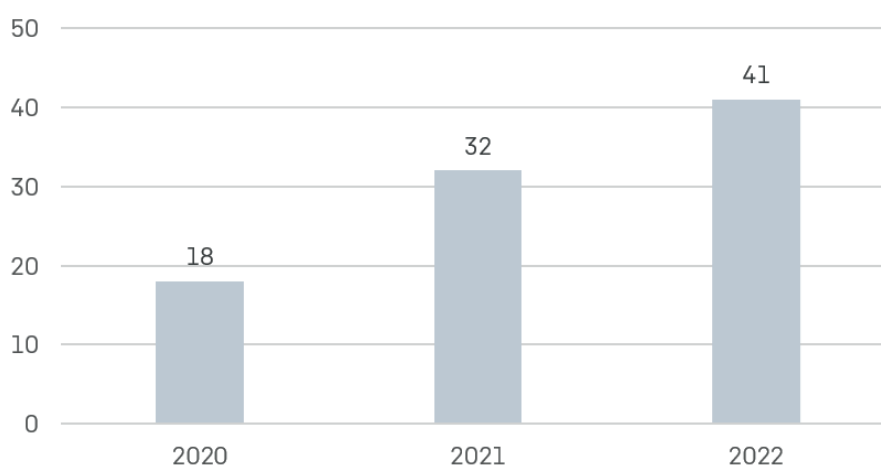
activities focused on expanding electrification throughout the equipment portfolio. With the delivery of the **first electrically powered HS 8100.1 E duty cycle crawler crane** to the port of Le Havre (France), Liebherr helped reach another milestone on the path towards emissions-free construction machinery.

Turnover of battery-electric cranes in relation to total turnover of product type, year 2021 and 2022, in %



A highlight in the product segment of maritime cranes was the LHM 420, the first mobile harbour crane which is **operated with fossil-free diesel made from 100% renewable raw materials** (HVO100 diesel) and thus enables efficient and locally emissions-free goods handling. Furthermore, the newly designed LPS 420 E - **a purely electric driven portal crane** - is the latest extension of the Liebherr mobile harbour crane product range. For high peak loads and variable power demand, the Liduro energy storage system (high-performance capacitors) of the LPS E can reduce energy costs by 20-40% through storage and efficient use of recuperative energy. In the area of general purpose offshore cranes, one of the cranes, an RL 2600-35 Litronic, is being used for supply and maintenance tasks on an unmanned offshore platform in the DolWin 5 wind farm in the North Sea. In the reporting period, the product segment also focused on the further implementation of technologies in the areas of **predictive maintenance**. In view of the travel restrictions, the technologies for remote access and commissioning have been developed even faster and more specifically.

Turnover of cranes with electric prime mover in relation to total turnover of Liebherr Mobile Harbour cranes, year 2020, 2021 to 2022p in %



In the field of digital services, Liebherr has further enhanced its **remote service portfolio** with **XpertAssist, which offers advanced technical assistance via an audio-video connection**. Immediate qualified fault analysis and online troubleshooting reduces the meantime to repair by up to 50 % at the same time on-site attendances can be reduced to a minimum. XpertAssist extends to predictive maintenance advice and reports on individual machines or entire fleets, for example, reports on safety or machine and engine utilization. The remote performance review and advice on preventive maintenance ensure high machine availability. Service technicians normally spend up to 45 % of their time just travelling to/from site. Thanks to XpertAssist, availability of experts is increased and CO<sub>2</sub> emissions are reduced through elimination of avoidable travel.

**LiDAT® smartApp** is a digital solution which supports port terminals in analysing and optimising cargo handling processes, performed by Liebherr mobile harbour cranes. The focal point is to make the processes faster, more environmentally friendly and more cost efficient. In real-time by transmitting cycle data directly after being generated, LiDAT® smartApp gives a full overview of the equipment status and the process. By allowing detailed analysis the web application shows up starting points to improve the efficiency of cargo handling processes recommending specific optimisation actions. The machine and process data analysis not only gives the ports a competitive edge but also allows for a faster operation resulting in a more efficient use of the cranes.

## Anti-Corruption

**Principle 10** Businesses should work against corruption in all its forms, including extortion and bribery.

### Our policy

#### Corruption and anticompetitive practices

The Liebherr Group is committed to fair and open competition in world markets. Anti-competitive price or market-sharing agreements with competitors or the abuse of a dominant market position are not allowed. Every employee shall adhere to the respective legal regulations in the framework in which they act. In the course of business or when dealing with authorities, no employee may procure, whether directly or indirectly, improper advantages for business partners, their employees or officials. Nor may an employee solicit or accept any improper advantages from business partners. An advantage is improper if its nature or extent is likely to influence the recipient's actions and decisions. It also includes the support of the worldwide measures to combat money laundering. Employees are to observe the necessary precautions. As a group of companies, we have an internal control system, which covers corruption-related risks, as well as training measures, in order to monitor adherence with compliance requirements and prevent possible compliance breaches.

#### Actions and outcomes

As a family-run business, Liebherr places great importance on behaving with integrity. In our view, this means above all behaving in a manner compliant with the applicable legislation, and furthermore also observing internal standards and **Supplier Code of Conduct**. We understand the term compliance to entail not only combating corruption but also, in particular, adherence to the rules in relation to competition law and foreign trade law. To enable managers and staff to be in a position to behave with integrity and to conform with the legislation, we have drawn up **various internal standards** covering corporate governance, compliance in purchasing, hospitality and gifts, compliance in sales, compliance in the field of foreign trade law as well as fair competition and antitrust law from a compliance perspective. Managers and staff are **trained on compliance and anti-corruption** on a regular basis. Employees in Finance and Purchasing Departments are additionally trained on fraud prevention in payment transactions. This course was newly created in 2021.

**100% of  
the sites have  
an installed  
whistleblowing  
system**

For compliance with statutory regulations as well as the Code of Conduct, employees of the Liebherr group and external informants are encouraged to report possible misconduct. For this purpose, a **whistleblowing system** was introduced by end of 2021. There are several options for reporting a suspected compliance breach. The report channels can be found on the Liebherr website. Confidential treatment of the report as well as the personal data is assured for every internal and external informant who reports a compliance breach with good intentions. No negative effects, discrimination or penalties are tolerated for an informant who reports a compliance breach.

Liebherr-MCCtec ensures **compliance with sanction and embargo** requirements by implementation of a structured process. Countries, business partners, service providers and suppliers are continuously controlled against the current sanctions and embargo lists. The process was extended to banks of suppliers and service providers in 2021.



