
Annual report 2023

LIEBHERR

The Group

Contents

01



Foreword from the family shareholders

04 Introduction

02



Brief portrait of the Group

08 About the Group

03



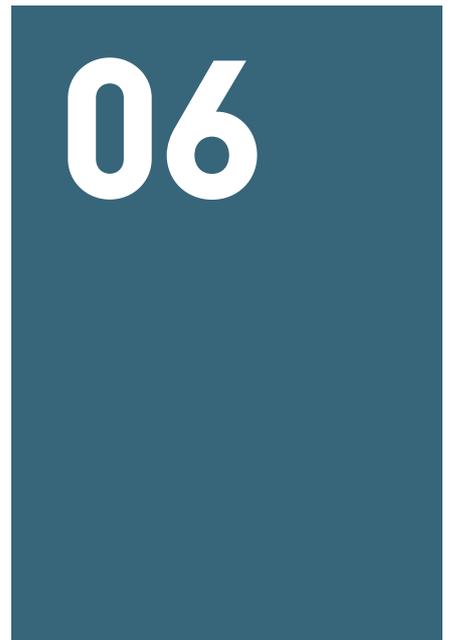
Development and outlook

18 The Liebherr Group in 2023

i

Clicking on the individual headings will take you to the respective chapters

Please visit the website for further exciting content on the 2023 business year



Reports on the product segments

- 32** Earthmoving
- 34** Material handling technology
- 36** Deep foundation machines
- 38** Mining
- 40** Mobile and crawler cranes
- 42** Tower cranes
- 44** Concrete technology
- 46** Maritime cranes
- 48** Aerospace and transportation systems
- 50** Gear technology and automation systems
- 52** Refrigerators and freezers
- 54** Components

Group companies

- 58** Summary of Group companies

Consolidated financial statements

- 66** Consolidated balance sheet
- 67** Consolidated income statement
- 68** Consolidated statement of comprehensive income
- 68** Consolidated statement of changes in equity
- 69** Consolidated cash flow statement
- 70** Notes to the consolidated financial statements
- 86** Report of the statutory auditor
- 87** Five-year summary

Foreword from the family shareholders

Business year 2023

Dear readers,

The last year was once again shaped by geopolitical conflicts and other pressing challenges, such as digitalisation and climate change. One thing is very clear from these global trends: continual change and complex transformation processes have long since become the norm. Social and economic changes also had an impact on our Group in 2023. Supply chain problems, high inflation in the euro-

zone, the trend in interest rates and the shortage of skilled labour once more tested our adaptability and strengths.

Against this backdrop, we still remained on track last year. We continued to be both stable and adaptable, demonstrating resilience and openness to new approaches. Our progress and decisions were also guided by

responsible conduct, reliability and a long-term focus in 2023. These factors were also key to a successful year overall, which saw us set a new record with revenue in excess of €14 billion. Our operating result improved significantly compared to the previous year.

Investing in our group of companies has always been extremely important to us and this year saw us invest more

In the interview, Jan Liebherr and Stéfanie Wohlfarth share their thoughts on the year 2023

The family shareholders active in the Group (from left to right): Patricia Rűf, Sophie Albrecht, Jan Liebherr, Stéfanie Wohlfarth, Philipp Liebherr, Johanna Platt, Isolde Liebherr, Willi Liebherr



than ever before. In concrete figures, our production sites and the global sales and service network received a record sum of €1,030 million, which represents an increase of 19.4 % on the previous year. We invested in our sites in Ehingen, Biberach and Oberopfingen (Germany), Dalian (China), Campsas (France) and Newport News (USA), to name just a few.

We see constant change as an opportunity, because as a technology company, we are directly involved in important transformations. Our machines are used to construct or remodel vital infrastructure around the globe and our technologies contribute to the decarbonisation and digitalisation of entire branches of industry. Our products themselves are also changing – becoming more digital and reducing emissions.

We would not be able to shape this change without our 50,000 employees. Their dedication and ideas are fundamental to our success and we extend our sincere thanks to them. We are also hugely grateful to our customers and partners for their loyalty and for placing their trust in us. Their satisfaction remains our top priority and that is a promise that we will keep in future too.

In 2024, we are marking our 75th anniversary – a significant milestone for our Group. The rich history that we are celebrating serves as a source of inspiration for us to actively shape further innovation for the future. Looking ahead to 2024, we are confident in our ability to master challenges and turn opportunities into successes.



Jan Liebherr
President of the administrative
board of Liebherr-International AG



Stéfanie Wohlfarth
Vice president of the administrative
board of Liebherr-International AG





02



Brief portrait of the Group

Brief portrait

The Liebherr Group

Founded in 1949, the Group today comprises over 150 companies on all continents and employs 53,659 people.

The Liebherr Group is a technology company with a broadly diversified product programme. The company is one of the world's largest manufacturers of construction machines, but also offers high-quality, user-oriented products and services in many other fields. The Group's holding company is Liebherr-International AG, based in Bulle (Switzerland). All its shareholders are members of the Liebherr family. For the Group, long-term success, sustainable development, stability and reliability are what matters.

Liebherr develops and manufactures an enormous variety of fascinating products. They are renowned on world markets for their high precision, excellent design and particular durability. With its innovations and visionary technologies, the company strives to inspire its customers. In the process, the limits of what was previously possible are constantly being redefined, enabling Liebherr to frequently contribute to technological progress. Working together on these fascinating tasks creates a strong bond that Liebherr's employees can rely on – across national borders and continents.



14,042

€ m revenue



1,030

€ m investments



53,659

employees



> 40

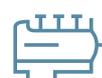
production companies

> 150

companies

13

product segments



Self-concept

The Liebherr Group was founded in 1949 by Hans Liebherr, a man driven by passion and visionary ideas, who had a keen sense for future-looking technology. To this day, Liebherr has demonstrated stability and reliability, thanks to the personal commitment of its leadership and its tradition as an independent, family-run company, and is known as a pioneer in forward-looking innovations with the highest quality standards. Liebherr is and remains a wholly family-run company with a high degree of freedom of action and decision-making in all its activities. Thanks to its high equity ratio and broadly diversified product programme, Liebherr has the flexibility to compensate for market-related economic fluctuations. The company's value-driven culture has ensured strong cohesion and trusting relationships with partner companies and customers over years and decades – characterised by fairness and mutual respect.

Maintaining integrity as a business partner and job security are important corporate directives. Its employees are an elementary part of the company: they all contribute their unique ideas and are committed to creating great things – no matter how demanding the task at hand. Liebherr reacts flexibly to the requirements of its customers and offers custom-built solutions. The close customer relationships and the high value placed on customer benefit form the foundations of the Group's success and are important parts of Liebherr's company culture. As descendants of the company founder, the shareholders are aware of their entrepreneurial responsibility. What matters are long-term success and sustainability as bases for future development and a solid financial standing – profits are reinvested and, by remaining within the company, guarantee the future of the Group.

Liebherr-International AG

Company information

Head office	CH-1630 Bulle / FR
Share capital	CHF 100,000,000
Shareholders	Liebherr family (100 %)
Administrative board	Jan Liebherr, president Stéfanie Wohlfarth, vice president Dr. h. c. Willi Liebherr Dr. h. c. Isolde Liebherr Hubert Liebherr Sophie Albrecht Patricia Rüb Johanna Platt Philipp Liebherr
Managing directors	Stephen Albrecht Dr. Rolf Geyer Steffen Günther Stephan Raemy Thomas Schuler
Auditors	Ernst & Young AG, Berne

The active shareholders of the Liebherr Group



Jan Liebherr
President of the administrative board of Liebherr-International AG



Stéfanie Wohlfarth
Vice president of the administrative board of Liebherr-International AG



Dr. h.c. Willi Liebherr
Member of the administrative board of Liebherr-International AG



Dr. h.c. Isolde Liebherr
Member of the administrative board of Liebherr-International AG



Sophie Albrecht
Member of the administrative board of Liebherr-International AG



Patricia Rűf
Member of the administrative board of Liebherr-International AG



Johanna Platt
Member of the administrative board of Liebherr-International AG



Philipp Liebherr
Member of the administrative board of Liebherr-International AG

From generation to generation

The Liebherr Group is managed jointly by the second and third generations of the family. This continuity as well as a focus on long-term success, sustainable development, stability and reliability are the fundamental principles that guide all management decisions. The Group's chief decision-making and management body is the administrative board, which is also composed exclusively of family members. It decides on all fundamental policies relating to corporate governance, business development, product policy,

and financial and investment policies. In addition to the president of the administrative board Jan Liebherr and the vice president Stéfanie Wohlfarth, the board includes Sophie Albrecht, Patricia Rűf, Johanna Platt and Philipp Liebherr as well as the siblings Dr. h.c. Willi Liebherr and Dr. h.c. Isolde Liebherr, who represent the second generation. They ensure that the Group will continue to be inextricably linked with the Liebherr family, maintaining its position as an independent, family-run company.



The Group's business model

Value proposition

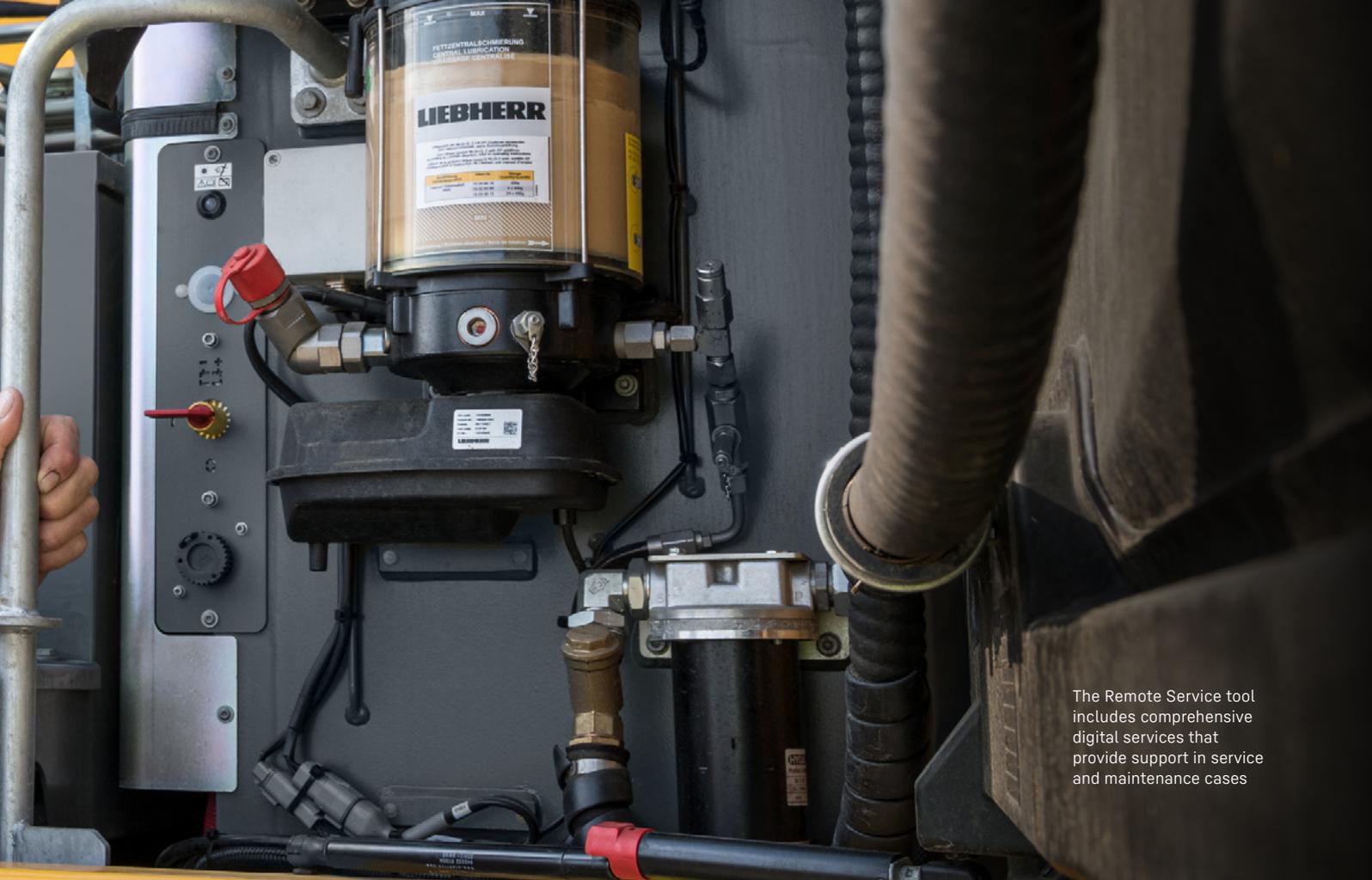
As a technology company, Liebherr has been synonymous with a wide range of products and services in many areas of technology for 75 years. Liebherr provides tailored, technologically advanced and innovative products as well as services with real added value to customers in many different industries all over the world. Thinking ahead with the necessary foresight, the Group is already addressing the challenges that customers around the globe will face tomorrow.

Product segments

The Liebherr Group offers a versatile product programme consisting of 13 product segments that is unique in its breadth and depth and helps shape technological advances across numerous industries.

Within the earthmoving product segment, Liebherr produces and distributes a broad portfolio of hydraulic excavators, crawler dozers and crawler loaders, wheel loaders, telescopic handlers as well as dump trucks. Within the material handling technology product segment, Liebherr specialises in a vast range of custom-built products and technologies capable of handling enormous volumes. The portfolio includes mobile, crawler and electric material handling machines used in

numerous applications such as scrap, timber and port handling as well as in recycling and waste management. In addition to these products developed for specialised use cases, Liebherr also offers modified versions of many models of its construction machines series for material handling. With its deep foundation machines, such as piling and drilling rigs and duty cycle crawler cranes, Liebherr offers a full spectrum of products to meet the modern industry's needs. For the mining industry, the Group's mining product segment includes powerful mining excavators, dump trucks and dozers that perform under the most extreme conditions. The Group also offers an extensive range of crane models of every system type, lifting capacity and size class, to be used in



The Remote Service tool includes comprehensive digital services that provide support in service and maintenance cases

the various areas of application. From all-terrain mobile cranes and telescopic crawler cranes to fast-erecting cranes, the products from Liebherr's mobile and crawler cranes and tower cranes product segments are used around the world, offering the right solution for any purpose. The Group is also a full-service provider in the concrete technology product segment. Liebherr develops and produces truck mixers, mixing plants and concrete pumps, rounding out its portfolio with additional products such as mixing and control systems.

With a versatile product range and innovative models, Liebherr also offers efficient material handling solutions for use in harbours and in the maritime and offshore industries. Products from the maritime cranes segment range from port equipment, such as mobile harbour cranes or ship-to-shore container cranes, to offshore cranes, ship cranes and floating transfer solutions. In the aerospace and transportation systems product segment, Liebherr offers high-precision components and custom-built system solutions for aircraft, rail vehicles and buses. High-quality gear cutting machines and automation systems as well as precision measuring equipment and engineering projects comprise the gear technology and automation systems product segment. Liebherr also

produces a vast array of refrigerators and freezers for home and commercial use, which feature innovative technologies and modern designs.

In the components segment, the Group specialises in high-performance mechanical, hydraulic and electrical drive and control technology products used in a wide range of industries. Liebherr also operates six luxury hotels in Ireland, Austria and Germany.

Customer relations

The Group has worked closely with customers and business partners for years or even decades, and is continuously expanding its global presence to remain close to its customers. The Group's products and services are sold through an international network of its own distribution and sales companies as well as partner companies with whom Liebherr maintains a long-standing and trusted business relationship.

Liebherr is highly committed to responding quickly, reliably and flexibly to its customers' requirements. The Group thrives on bundling its vast technical expertise and extensive knowledge from a wide range of fields and its ability to offer customised solutions. Liebherr strives to deliver excellence for its customers, while constantly redefining the limits of what is possible. As a traditional family-run company, the Group owes its success to close customer relationships and its strong focus on added value.

Key activities

The Liebherr Group develops, produces and distributes innovative products as well as services and is the driving force behind many key technologies.

Key resources/added value chain and key partnerships

Liebherr invests heavily in research and development. In this context, the Group also forms partnerships with universities and research institutes worldwide.

Thanks to its network of over 40 state-of-the-art production facilities in 17 countries and long-standing partnerships with suppliers inside and out-side of the Group, Liebherr is able to offer the highest-quality innovative products at competitive prices. The business model also includes well-organised spare parts logistics and customer-centric services.

Liebherr is committed to mastering key technologies down to the last detail, which leads to a high degree of independence in technological terms.

Liebherr has a high equity ratio and operates on the principle that the Group's growth should be predominantly organic, achieved through its own intrinsic strength. In certain cases, the Group is also open to appropriate partnerships and joint ventures.

Financial performance and cost structure

Liebherr generates revenue through the sale and rental of products as well as the provision of services.

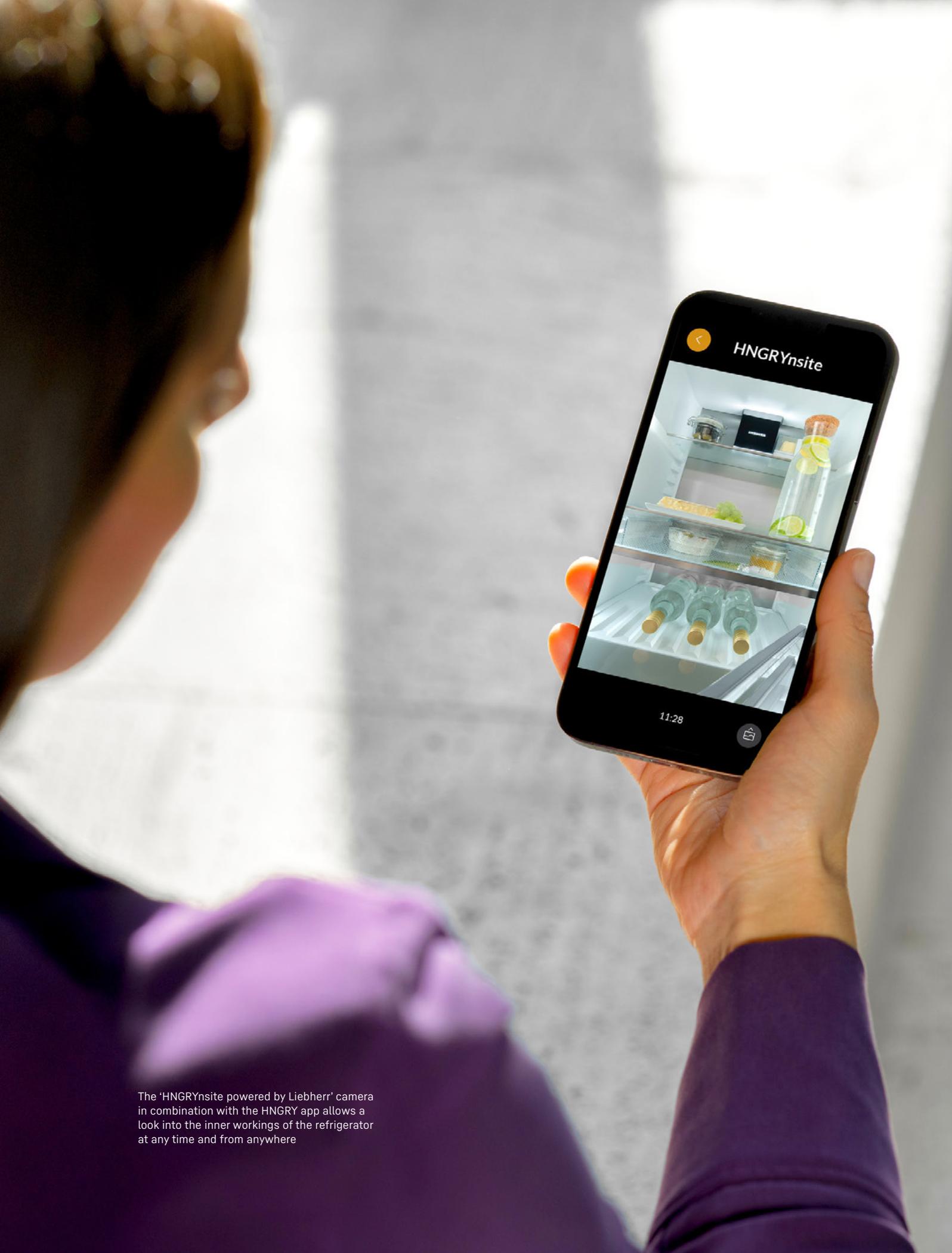
In some product segments, the Liebherr Group benefits from lowering its unit costs by increasing production volumes. In other segments, however, the focus lies on developing custom-built solutions for individual customers. In those segments, Liebherr focuses on adding value, achieving a premium value proposition and offering highly personalised services to its customers. The Group can create synergies through its broad product programme and mastery of key technologies, among other things. Its supply chain spans the entire globe.

With its 13 product segments, the Group pursues a strategy of diversification, which contributes to independence from economical fluctuations in individual industries or markets. The decentralised corporate structure with clearly organised, independently operating business units also positions Liebherr to respond flexibly to market trends in the competitive global economy. Liebherr is dedicated to long-term success, sustainable development, stability and reliability. The Group's core objective is to ensure that profits remain within the company, where they are reinvested.

Organisational structure

The Liebherr Group has a decentralised structure. Its holding company is Liebherr-International AG, which exercises executive, coordinating and controlling functions. Independently operating divisional controlling companies are responsible for the operational management of the Group's product segments. This means that research and development, production, marketing and sales for individual product segments are also decentralised. Country-specific activities are often managed within overarching sales and service companies.

This structure offers multiple advantages: on the one hand, it ensures a consistent approach to central corporate issues, while on the other hand, the flat hierarchies within its individual product segments allow Liebherr to respond quickly to the needs of the market, to adapt quickly to changes and swiftly put new ideas into practice.



The 'HNGRYnsite powered by Liebherr' camera in combination with the HNGRY app allows a look into the inner workings of the refrigerator at any time and from anywhere

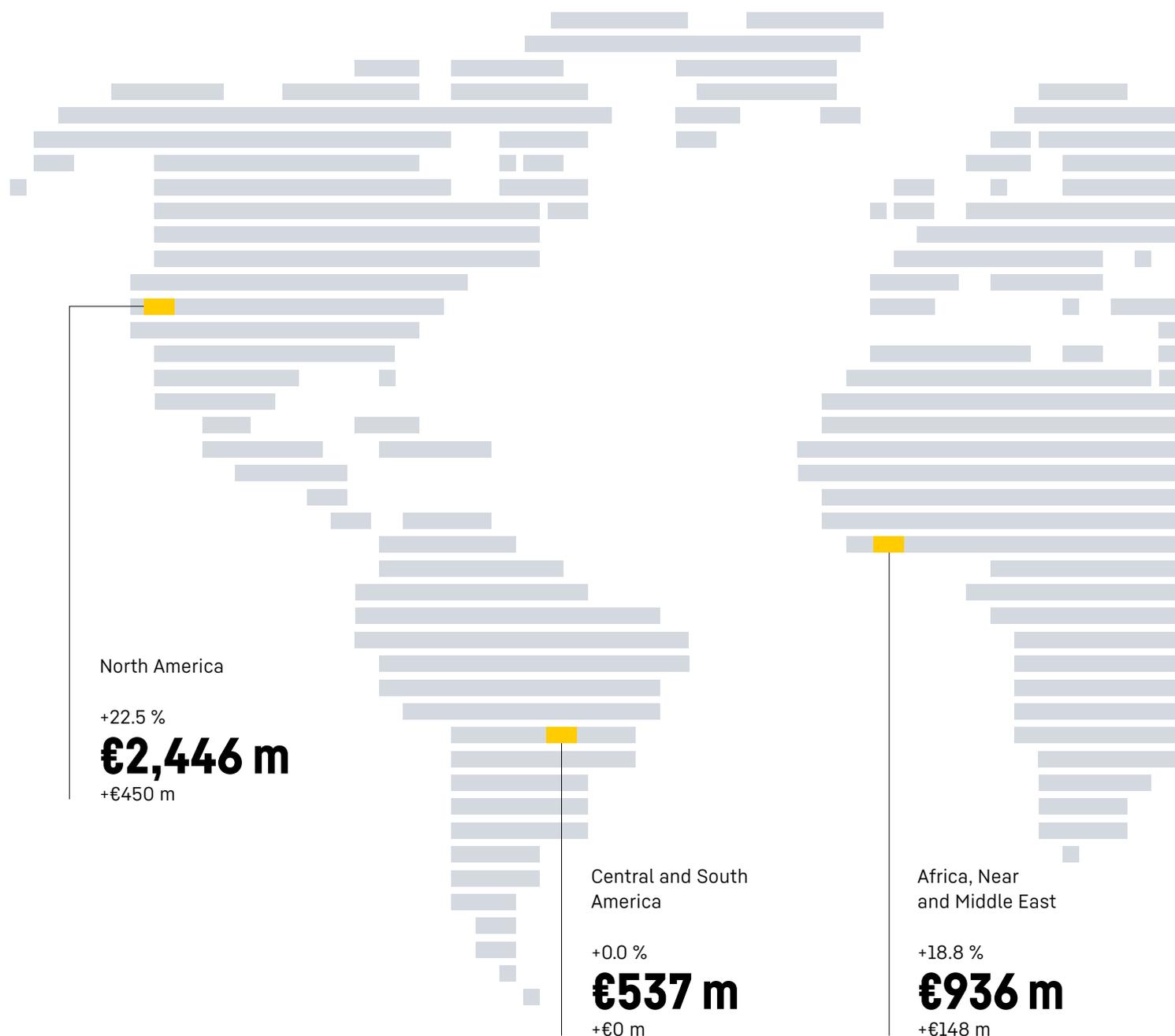
03

Development and outlook

Business performance

The Group in 2023

The Liebherr Group achieved record revenue of €14,042 million in 2023. This represents an increase of €1,453 million, or 11.5 %, compared with the previous year.



Europe

+6.0 %

€7,890 m

+€ 449 m

European Union

+10.1 %

€6,507 m

+€597 m

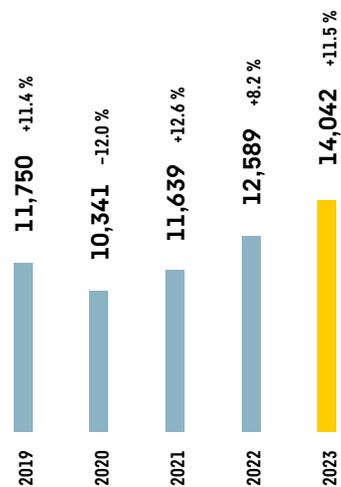
Non-EU countries

-9.7 %

€1,383 m

-€148 m

Revenue worldwide € m



Asia and Oceania

+22.2 %

€2,233 m

+€406 m

Discover the Liebherr Group's highlights of 2023



Full power at an altitude of 2,600 m:
the TA 230 Litronic articulated dump truck
transporting excavated material for a new
reservoir on the Stubai Glacier (Austria)



Overall economic performance

According to the International Monetary Fund, global economic growth slowed to 3.1 % in 2023.

The ongoing impacts of the coronavirus pandemic, the war in Ukraine and the rising cost of living have continued to have a negative impact on the global economy. There was, however, some slow recovery from these challenges. The economy was more resilient than presumed in the face of war-related market disruption and tightened monetary policy. Although global economic growth slowed and has not yet returned to pre-pandemic levels, it did not become stagnant. Having reached a peak in 2022, inflation fell again in the business year. This decline was propelled by more moderate energy and food prices and the recovery of supply chains.

Overall, there continued to be slight growth in the global economy. This was evident, in particular, in emerging market and developing economies, which grew by 4.1 %, whereas industrialised countries only recorded growth of 1.6 %. Particularly striking here is the small increase of 0.5 % in the eurozone – compared to 2.5 % growth in the US economy.

Revenue development by product segment

In the 2023 business year, Liebherr once again achieved record revenue with €14,042 million. The Group recorded considerable revenue increases in almost all product segments, with the only exceptions being the deep foundation machines and tower cranes product segments.

In construction machines and mining, Liebherr achieved revenue of €9,557 million, which represents an increase of 11.6 % on the previous year. This includes the product segments of earthmoving, material handling technology, deep foundation machines, mining, mobile and crawler cranes, tower cranes and concrete technology. In the product segments of maritime cranes, aerospace and transportation systems, gear technology and automation systems, refrigerators and freezers, components and hotels, the Group generated combined revenue of €4,485 million. This equates to an increase of 11.3 % compared to the previous business year.

Growth was driven primarily by substantial sales of mobile cranes, mining excavators, wheel loaders, material handling machines and components for the aerospace product area. The decline in residential construction resulted in a downward trend in the tower cranes segment. Besides this, the major challenges of the last year included the uncertain political climate and persistently high inflation and interest rates.

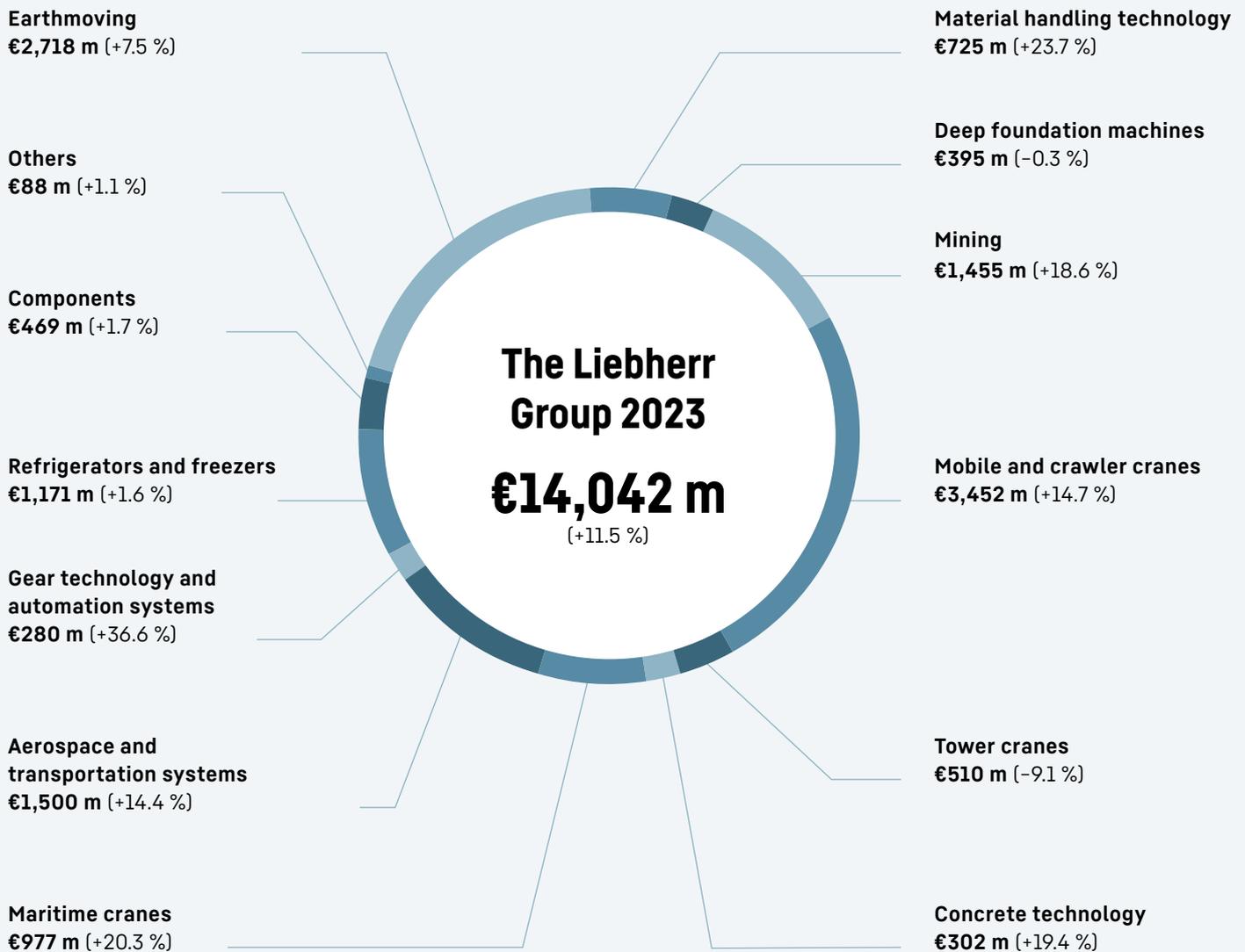
Revenue development by region

The Liebherr Group's revenue developed positively in almost all sales regions in the 2023 business year. There was an encouraging increase in revenue in the European Union, traditionally Liebherr's strongest market. Business was particularly positive in Germany, France and Spain. The Group recorded a minor decline in the non-EU countries. The business year was extremely encouraging in North America – driven by the USA and Mexico – and also in Asia and Oceania, particularly in Australia, Indonesia and China. Revenue in the Africa, Near and Middle East region was also well above the previous year's level. In Central and South America, revenue remained at the previous year's level.

Net income

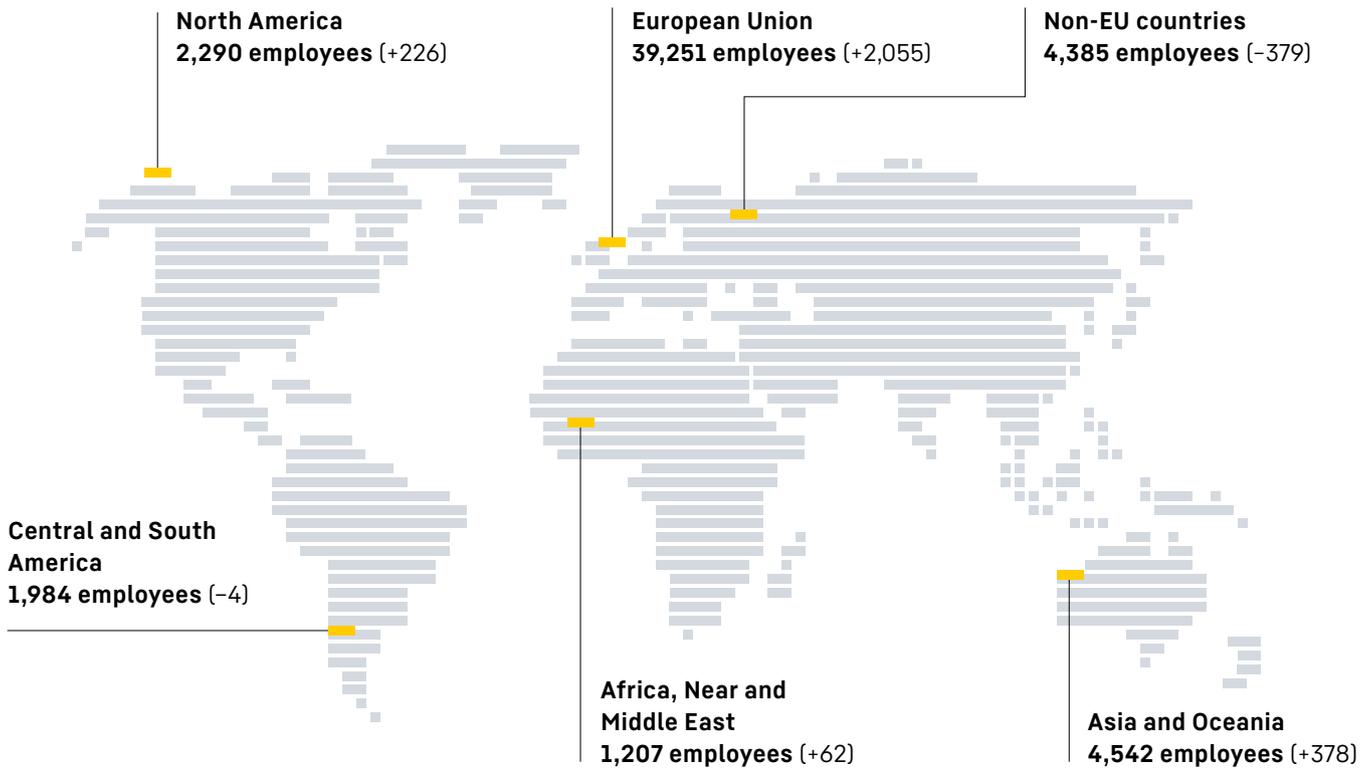
In 2023, the Liebherr Group achieved a net income of €367 million. The operating result increased compared to 2022 and the finance result grew significantly compared to the previous year's level.

Revenue by product segments



(Variation compared to the previous year in %)

Employees by regions compared to previous year



Employees

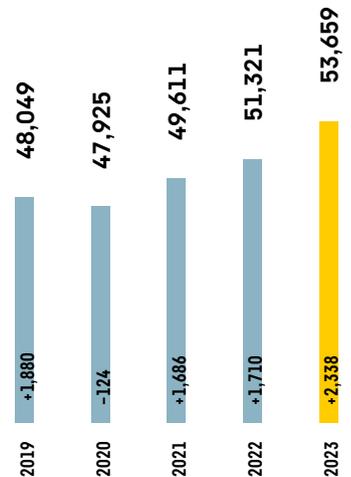
The Liebherr Group's employees are key to its success. Their qualifications, commitment and determination to produce first-class results for the Group's customers mean that they are the ones who decisively shape the company. As a family-run company, Liebherr is an employer with a strong tradition of partnership and teamwork based on reliability, fairness, respect and autonomy.

The number of employees in the Group increased again in the business year. At the end of 2023, Liebherr employed 53,659 people worldwide, which represents an increase of 2,338 employees or 4.6 % on the previous year. The European Union saw the largest increase in the number of employees. The figure fell

in the non-EU countries. Liebherr also recorded a slight decline in Central and South America. The number of employees rose compared to the previous year in North America, the Africa, Near and Middle East region and in Asia and Oceania.

The Group is regarded as an attractive and reliable employer. Liebherr creates exciting professional challenges and opportunities for employees to nurture their passion for fascinating, innovative products and technologies through the diverse tasks they perform in their day-to-day work. A whole host of opportunities await employees starting their working life, ranging from apprenticeships to dual study, to a final thesis or traineeship opportunities.

Employees worldwide



Sustainability

The Group aspires to generate sustainable value for its employees, customers and suppliers, and for society as a whole. As an independent family-run company with a long-term focus, Liebherr is aware of its responsibilities and is committed to sustainable development. Its products, processes and infrastructure are geared to the minimum possible consumption of resources. The focus in all areas is on safety, efficiency and environmental sustainability. Last year, a large number of the Group's companies worked on projects concerning social, environmental and economic aspects of sustainability. The many activities in these areas will be incorporated into an overall concept for corporate responsibility, which is currently being developed at Group level.

Research and development

As a high-tech company, Liebherr aims to play a major role in advancing technological innovation. In the 2023 business year, the Group therefore invested €634 million in its research and development activities. A large proportion of this amount went into new product development. Numerous research projects with universities, higher education institutions and research institutes were initiated or carried forward. The research and development activities continued to focus on alternative drives, digitalisation and autonomy. Liebherr further developed its existing technologies in 2023 and add numerous new machines, components and solutions to its product programme.

Liebherr consistently pursues an open approach to technology in order to support its customers in achieving their emissions targets and meeting future environmental standards. The Group researches and develops solutions such as electric drives, alternative fuels for combustion engines, for example hydrogen and ammonia, and hydrogen fuel cells.

Various electrically powered machines took centre stage for the construction site of the future in the business year. This included not only sales getting under way for the first battery-electric Liebherr wheel loader L 507 E, but also the first delivery of the new LH 80 M High Rise Industry electric material handling machine. In the maritime cranes product segment, the CBG 500 E transshipment crane commenced operation and the LS 800 E became the first fully electric heavy-lift crane currently in production.

In the components product segment, Liebherr prepared for the series production of the Liduro Power Port mobile energy storage system for mobile power supply, which is scheduled to begin in 2024. This was successfully tested for a range of customer requirements. The Betomix and Mobilmix mixing plant series have already been in operation since 2023. These offer greater dosing accuracy and consume up to 30 % less energy than their predecessors, resulting in savings for raw materials, time and CO₂ emissions.

In aerospace, there is also a focus on alternative technologies for generating electrical energy for the propulsion and power supply of future aircraft. Liebherr installed a test bench in Toulouse (France) that uses fuel cells to generate electrical power for the non-propulsion systems of next-generation aircraft. Furthermore, Liebherr entered into an agreement with Eve Air Mobility to supply electro-mechanic actuators for the flight control system of the Eve eVTOL aircraft. The actuators with fully integrated electronics are among the first in the world to be used for primary flight control.

In the business year, Liebherr also invested in various digital platforms to give customers greater reliability, convenience and efficiency when operating machines. The Tower Crane Portal was fully integrated into the

MyLiebherr customer portal. The Crane Finder, which helps find the right mobile and crawler cranes for specific lifting tasks, and the MyNotifier application were also developed further. MyNotifier informs the machine operator of the wind conditions or supplies status information for the high-voltage battery and charging process, thus enabling more efficient and safer crane operation. Development of the pioneering Tower Crane Operating System 2 for a large number of bottom-slewing cranes also continued.

Liebherr also expanded its digital offering in the earthmoving and material handling technology product segments. The MyGuide for Earthmoving app brings together product information and news from these two segments, provides an interface with the product configurator and enables users to easily contact Liebherr sales and service partners.

In addition to alternative drives and digitalisation, Liebherr is also focused on autonomy and automation. The latest series of mobile harbour cranes features the Master V crane control system, which provides the basis for integrating future assistance and partial automation systems. As part of the ZIRKEL research project, Liebherr is developing automated disassembly processes for battery packs from electric vehicles. These processes are needed to achieve high recycling rates and to establish carbon-neutral battery production throughout the process chain for the long term. In the field of automation, the LiReCon teleoperation unit was also further developed and tested, and autonomous T 264 mining trucks entered into operation for validation testing with a customer in Australia.



Driverless transport systems carry small parts autonomously in the Liebherr spare parts warehouse in Oberopfingen (Germany)

Learn more about digitalisation at Liebherr

Investments

Liebherr has a tradition of regular investment in its production sites and its global sales and service network. In the business year, Liebherr made record investments of €1,030 million, which represents an increase of €167 million or 19.4 % compared to the previous year. This was offset by depreciation amounting to €623 million.

The company site at Liebherr-Werk Ehingen (Germany) is currently being expanded to create more space for mobile and crawler crane production due to rising demand. A new training workshop is also being built and the warehouse areas are being redesigned with the latest technical equipment. Liebherr-Logistics GmbH in Oberopfingen (Germany) has also invested in improved storage facilities. The highly automated logistics centre has been expanded with a new cold hall and a hazardous materials storage facility for lubricants. At the site in Newport News (USA), the Group has invested in the production of mining trucks. In addition to a new painting facility, the focus is on expanding the existing production hall, with work expected to be completed in 2025. Building work also began at the Campsas site (France) in the business year, in order to enlarge the Liebherr-Aerospace site there.

In Schüttorf (Germany), Liebherr is building a subsidiary for the sales, maintenance, repair and leasing of earthmoving machines on an area of almost 18,000 m². This will replace the sites in Lingen and Münster (Germany) and is scheduled to be completed this business year. The heating and cooling for the new administration building and the workshop hall will be provided by heat pumps, and solar panels on the roof of the workshop hall will supply the subsidiary with power.

Elsewhere, Liebherr acquired Zimmermann-Optik GmbH, one of the largest sales partners of Leica Geosystems in Germany. With this move, the Group is investing in its range of services for machine control systems. A new administration building is also being built at the Biberach site (Germany), which Liebherr-Purchasing Services GmbH and Liebherr-International Deutschland GmbH will use for group-wide activities.

Risk management and internal control system

In order to ensure that the Group's success continues to be sustainable, opportunities and risks are identified at an early stage for evaluation and control. The Group has a continually optimised risk management and internal control system in place to help it meet operational, market-related and legal requirements.

All managers responsible for the risk management and internal control systems used in the individual Group companies are involved in ensuring the integrated recording, analysis and evaluation of risks. Risks are identified and assessed locally in the individual companies, then countermeasures to limit the risks are introduced and the impacts are evaluated.

This localised approach also makes it possible to identify and assess areas of opportunity efficiently. The information gained about market-related and technological developments is used in opportunities management to reach decisions about future areas of business and production processes.

At the corporate level, the current risk situation is reviewed regularly and the effectiveness of the systems and processes is assessed. The internal audit department monitors compliance with Group guidelines and the implementation of the risk management and internal control systems.

Events after balance sheet date

Events of particular significance which occur after the reporting date should be recorded here, along with their expected impact on the Group's assets, financial position and financial performance. There were no events of special significance within the Liebherr Group after the close of the 2023 business year.

Outlook for 2024

The International Monetary Fund has forecast that global economic growth will stabilise at 3.1 % in 2024, meaning that it will still be below the average of 3.8 % for the years 2000 to 2019. Economic growth in industrialised countries is expected to weaken slightly to 1.5 %, with stable growth of 4.1 % anticipated in emerging market and developing economies. The World Bank, by contrast, expects global growth to slow to 2.4 % and thus remain significantly below its potential for the rest of the 2020s, provided no corrective measures are taken.

As inflation has peaked, forecasts by the International Monetary Fund expect it to decline steadily, mainly due to tighter monetary policy. However, the World Bank's outlook for the current year expects that inflation will not return to the targets set by central banks until 2025 and will remain above the average for 2015 to 2019.

At the end of 2022, the Euroconstruct research network predicted the stagnation of European construction output in 2023 and 2024. The consequences of interest rate rises and the war in Ukraine dampened the outlook. For the business year in question, Euroconstruct indicated a decline of 1.7 % at the end of 2023. It is also expected that this will intensify in 2024.

In the aerospace industry, the level of global passenger traffic in 2023 approached that of 2019, according to the International Air Transport Association (IATA). The number of air passengers is expected to have fully recovered by the end of 2024.

Economic conditions will remain challenging in 2024, however Liebherr has started the new business year with a very solid order backlog. Although there are differing trends in the individual product segments, Liebherr will be able to compensate for this thanks to its decentralised, diversified structure and international positioning. The demand for large cranes and raw materials is growing as numerous economies around the world undergo transformation processes. This provides market opportunities for Liebherr. The Group anticipates growth in the USA and Australia, for instance.

In order to successfully leverage these and other opportunities, Liebherr will again continue to forge ahead with the development of new products and technologies in 2024. Back in 1949, market opportunities persuaded Hans Liebherr to develop the first mobile tower crane and thus lay the foundations for the Group as it stands today. Liebherr will celebrate its 75th anniversary in 2024 with the motto of '75 years of moving forward', recalling the special pioneering spirit that has continued to make Liebherr's many successes possible to this day.

Individual opportunities and risks

To describe individual opportunities and risks, similar types of risks and opportunities have been grouped together.

In macroeconomic terms, the decline in inflation rates and the anticipated decline in interest rates may contribute to a reduction in uncertainty and result in an increase in demand in various industrial sectors in which the Liebherr Group is active. Order intake is continuing to develop positively across all product segments.

There are also simultaneous macroeconomic uncertainties related to the duration and extent of the expected recovery of the German economy and the expected decline in economic activity in China. Further unpredictable factors include the duration of price fluctuations for many goods and services, shortages of certain raw materials and labour and bottlenecks in various supply chains.

The conflict in the Middle East and the war in Ukraine may have negative impacts on sales performance and lead to the disruption of supply chains and energy supplies or to bottlenecks for components, raw materials and intermediate products. In light of this, negative impacts on the Group's activities cannot be ruled out.

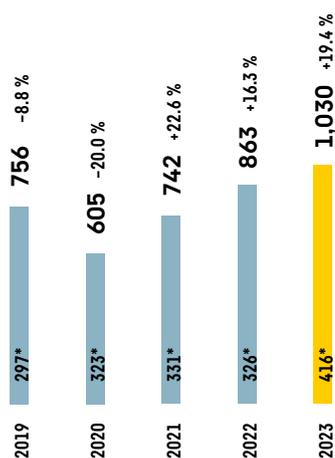
In terms of corresponding risks, the Group may face changes in costs, notably in energy prices, as a result of these macroeconomic uncertainties. Risks may also be triggered by climate-related or geopolitical shocks, which cannot always be compensated for by price indexation.

The chapters on each of the product segments contain detailed reports on relevant opportunities and risks.

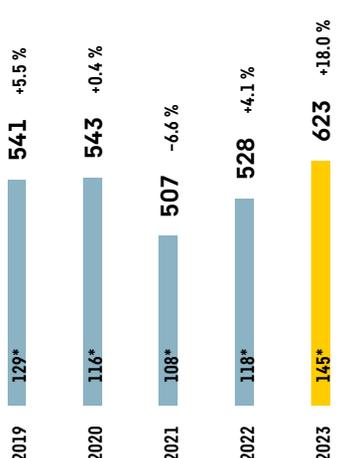
Liebherr monitors these risks continuously and uses appropriate financial instruments to hedge selected transactions. The Group enters into financial transactions only where these are linked to its operational business activity or for hedging. In principle, Liebherr does not conduct transactions of a speculative nature.

The global orientation of the Group's business activities, together with its broad product diversification and the risk management system, ensure that the relevant risks are kept under control. Based on currently available information, there are no further identifiable risks which could have a substantial detrimental effect on Liebherr's assets, financial position and financial performance in the 2024 business year, and threaten the survival of the Group as a whole.

Investments € m



Depreciation € m



* Of which rental fleet



04



Reports on the product segments

Earthmoving.....	32
Material handling technology	34
Deep foundation machines	36
Mining	38
Mobile and crawler cranes	40
Tower cranes.....	42
Concrete technology.....	44
Maritime cranes.....	46
Aerospace and transportation systems	48
Gear technology and automation systems	50
Refrigerators and freezers.....	52
Components.....	54



Earthmoving

In the earthmoving product segment, Liebherr recorded revenue of €2,718 million in the 2023 business year, representing an increase of €189 million or 7.5 % on the previous year.

Continued growth achieved with new production record

At the start of 2023, the previous year's positive trend continued on the global market for earthmoving. As the year progressed, the geopolitical and economic circumstances had a significant impact on market development, meaning that the global market declined considerably and seems to have passed its peak.

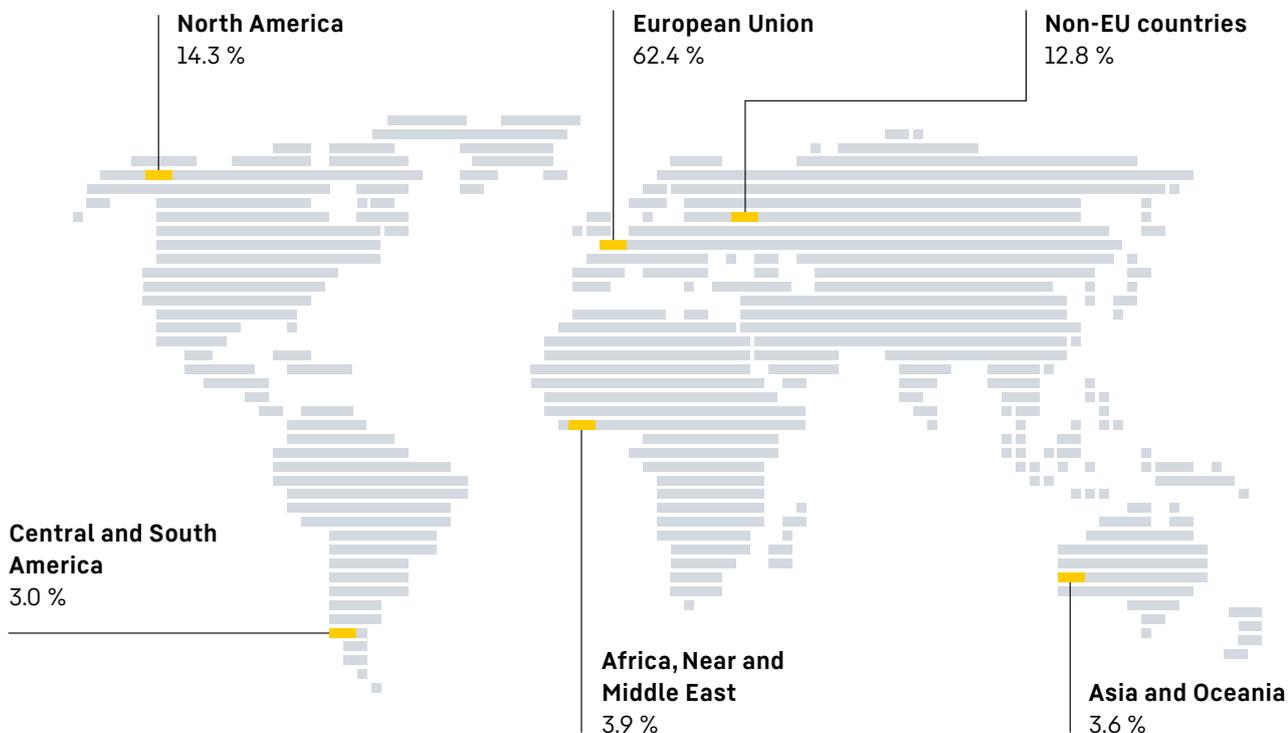
Contrary to the global industry trend, Liebherr was able to increase revenue in the earthmoving segment in almost all sales regions and achieve record production despite minor disruption in the supply chain. The strongest progress was made in North America, driven primarily by the positive trends in the USA. Growth was also recorded in the Africa, Near and Middle East region. Due to revenue increases in Germany, Spain and Denmark, the same was true for the European Union, which has traditionally been the segment's key market. Liebherr recorded a decline in revenue in the non-EU countries and in the Asia and Oceania sales region. Revenue grew in the Central and South America region, thanks in part to an increase in Brazil.

Focus on open approach to technology and digital solutions

Liebherr continued its open approach to drive technologies in the earthmoving segment. Sales of the Liebherr L 507 E battery-electric wheel loader that was unveiled at Bauma began in 2023. The global market launch of the new R 930 Tunnel crawler excavator brought a new addition to the tunnel excavator product portfolio. This product replaces the R 924 Compact Tunnel and offers impressive versatility and excellent flexibility for tunnel construction and underground quarrying applications.

In the digital sphere, Liebherr introduced a new app with MyGuide for earthmoving. This enables users to contact Liebherr sales and service partners directly, provides a direct interface with the product configurator for earthmoving machines and brings together all the product information and news from the earthmoving segment. Liebherr expanded its service for customers with the introduction of the National Type Approval (*Allgemeine Betriebslaubnis - ABE*) for selected wheeled excavator models ex works.

Revenue by sales regions



The exemption certificates required for self-driving machines to drive on the road are valid across Germany and are unrestricted, including for customers.

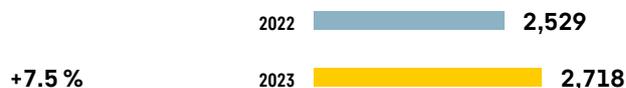
The focus of research and development activities in 2023 was on alternative drive technologies, the use of alternative fuels and the semi-automation and autonomy of machines.

Liebherr-EMtec GmbH also acquired Zimmermann-Optik GmbH, one of the largest sales partners of Leica Geosystems in Germany. Liebherr thus further expanded its range of services in the area of machine control systems.

'Liebherr continues to develop its high-performance and energy-efficient construction machines with an open approach to technology, thus shaping the construction industry for the long term.'

The economic situation and the ongoing cool-down in the core markets for the construction machine industry are dampening the outlook in the earthmoving segment. Liebherr is therefore looking to the 2024 business year with caution for this product segment.

Revenue € m



Investments € m



Employees





Material handling technology

In the material handling technology product segment, Liebherr achieved revenue of €725 million in the 2023 business year, which represents an increase of €139 million or 23.7 % compared to the previous year.

Material handling on positive trajectory

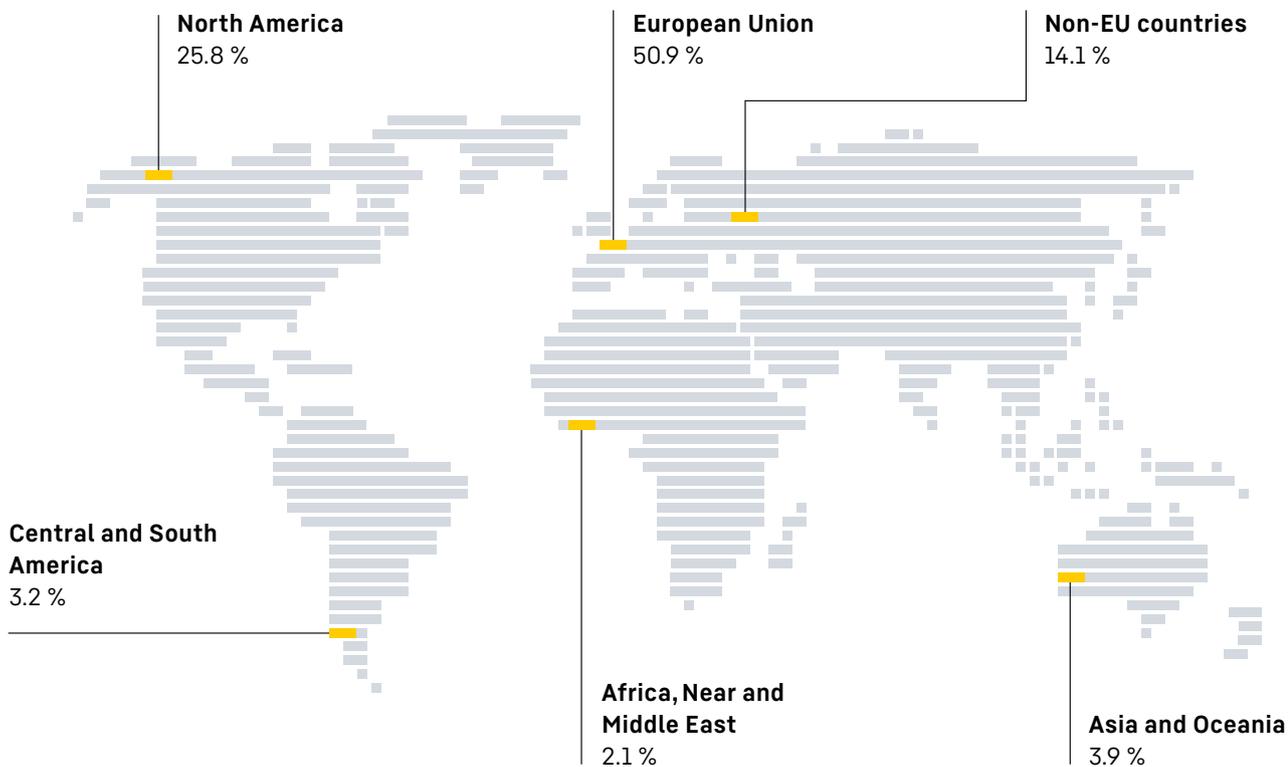
The positive dynamics from the 2022 business year continued in the material handling technology segment. Better availability on the procurement markets enabled growth to surpass the previous year in 2023.

Liebherr also benefited from global market developments and recorded revenue growth in almost every sales region for material handling technology, with significant increases in some cases. The revenue growth in the Africa, Near and Middle East region can be attributed to the Algerian market. Liebherr also achieved significant revenue growth in the Central and South America region, driven by Brazil. North America also saw very positive development, due in particular to the USA and Canada. Encouraging growth, including in Germany and France, resulted in an increase in revenue in the EU, whereas the non-EU countries recorded a decline in revenue overall, despite positive trends in the United Kingdom and Switzerland. Growth in Indonesia, India and New Zealand also led to an increase in revenue in the Asia and Oceania sales region.

Product portfolio developed and expanded

Expansion and further development of the product portfolio was a key focus in the 2023 business year. At Ligna, Liebherr presented the new L 580 LogHandler XPower® special wheel loader and the new LH 26 M Timber Litronic timber handling machine. The renewed model of the L 580 from generation 6.2 combines the numerous familiar benefits of the XPower® wheel loaders with design adaptations for timber handling. Thanks to a swivel arm optimised for visibility, a wood grapple with improved filling and a modified lift arm, more cubic metres of timber can be moved per second, thus increasing productivity. The new LH 26 M Timber Litronic is ideal for use in confined spaces and offers maximum performance with extremely low fuel consumption. Another highlight was the delivery of the first LH 80 M High Rise Industry electric material handling machine. In addition to the electric drive concept, the impressive machine offers a special frequency converter, which enables simple adaptation to all common power grids around the world, for instance.

Revenue by sales regions



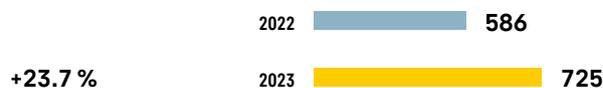
In the area of attachments, Liebherr introduced the GMZ 180B clamshell. Liebherr's largest clamshell to date, it weighs 8.5 t and guarantees rapid loading and unloading due to its 16 m³ capacity. The *Baugewerbe* trade journal also awarded the Liebherr GMM 50-5 multi-tine grab its readers' choice prize for 2023 Product of the Year.

Liebherr expanded its digital offering with the MyGuide for Earthmoving app. The app enables users to contact Liebherr sales and service partners directly, provides a direct interface with the product configurator for material handling machines and brings together all the product information and news from the material handling sector.

Demand seems to have reached a temporary peak in 2023. The global economic situation is having a cooling effect,

which is, in turn, affecting market growth in the material handling sector. Liebherr is therefore cautiously optimistic about the 2024 business year in the material handling segment.

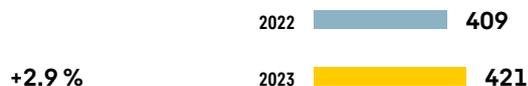
Revenue € m



Investments € m



Employees



'The efficient Liebherr handling machines offer tailor-made solutions and set new benchmarks for drive technologies and digitalisation in the material handling industry.'

Deep foundation machines

In the 2023 business year, revenue in the deep foundation machines product segment remained at the previous year's level. At €395 million, it was merely €1 million or 0.3 % below the figure for 2022.

Volatile market environment

In 2023, the infrastructure sector, in particular, had a positive impact on the global construction industry. At the same time, high inflation and interest rates and the associated price increases halted investments in residential construction especially. Although the supply of materials fundamentally improved, Liebherr still faced bottlenecks with some suppliers in the deep foundation machines product segment, meaning that it could almost match the record year of 2022.

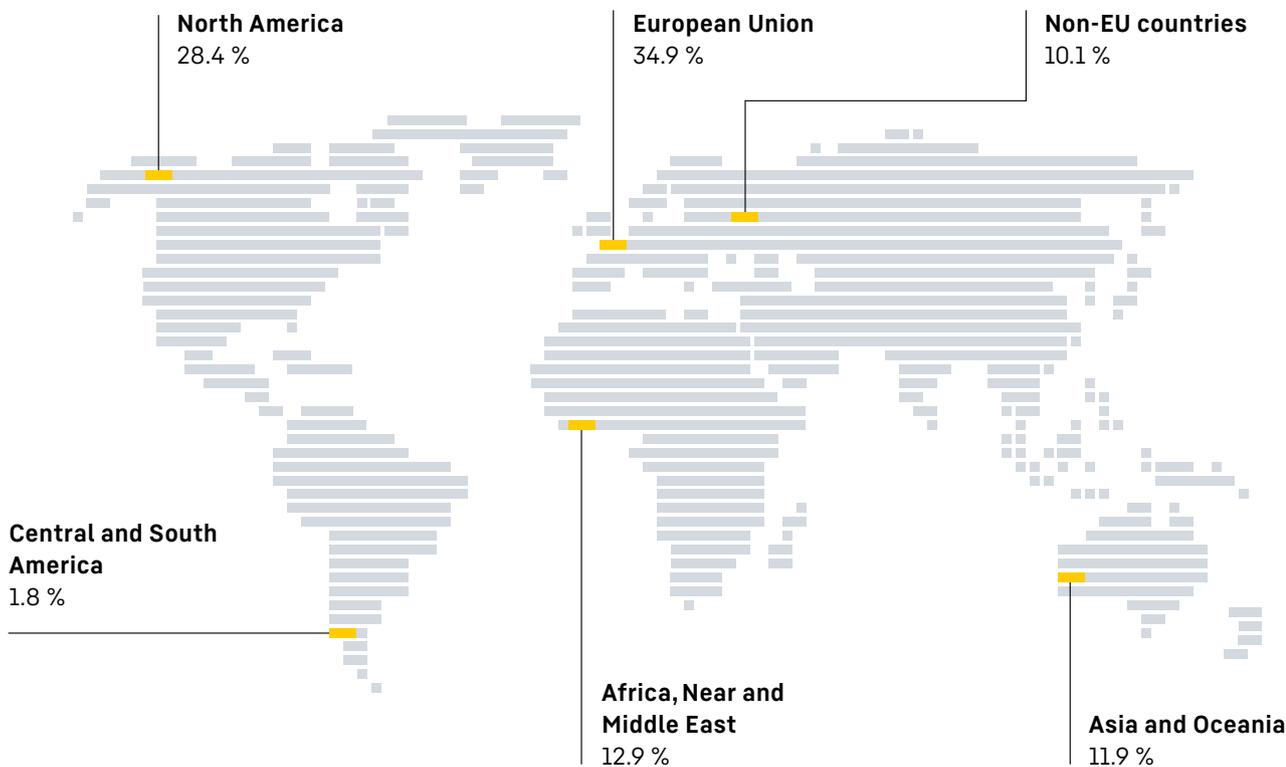
Uneven growth was observed in the various sales regions. Liebherr recorded moderate declines in North, Central and South America and in the European Union. Despite growth drivers, for instance from Romania and Italy, the downward trends prevailed in several individual markets. Liebherr did, however, record increased revenue in the non-EU countries and in Asia and Oceania, with growth being generated in Turkey and Japan, for example. There was also dynamic growth in the Africa, Near and Middle East sales region, driven in particular by successful projects in Saudi Arabia and the United Arab Emirates.



Expansion of the attachment series

In 2023, Liebherr launched several new attachments for deep foundation machines. These included the H 10 hydraulic hammer, which offers a high-performance solution for a wide variety of applications with a maximum impact energy of 120 kNm. The H 10 can be used on the new LRH 200 piling rig or the LRB 23 piling and drilling rig, for example, and is also suitable for use in hydraulic steelwork. Liebherr also unveiled the new LV 36 vibrator for the LRB 355.1 piling and drilling rig. The high-frequency vibrator was specially designed for common methods of soil improvement and is particularly efficient for use in producing displacement piles, as the process enables lower CO₂ emissions when producing foundation elements, such as crushed stone columns. An independent control and operating console was developed for the use of Liebherr hammers without a Liebherr basic machine – giving customers flexibility when using their attachment.

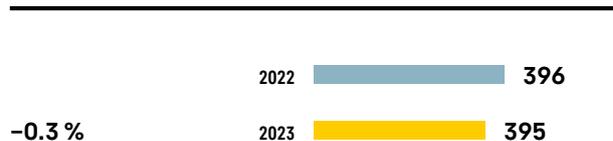
Revenue by sales regions



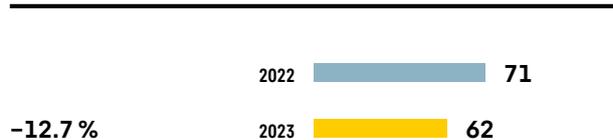
In research and development, Liebherr explored various topics. One area of focus was on recording and analysing greenhouse gas emissions in the entire product life cycle of various types of machines. The comprehensive evaluation and the identification of possible decarbonisation measures provide the basis for developing corresponding strategies and reduction targets. In the area of alternative drives, Liebherr added new product types to the electric 'unplugged' series. Progress was also made with a wide range of technology projects, such as the simulation of digging, drilling and milling processes.

Despite unstable conditions and uncertainty, Liebherr anticipates a positive trend in 2024 for the deep foundation machines product segment.

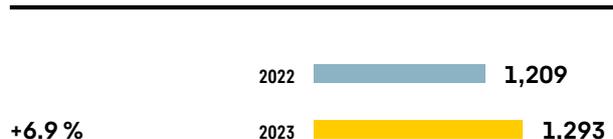
Revenue € m



Investments € m



Employees



'Liebherr is continuously developing sustainable deep foundation solutions – in particular for urban regions, to avoid greenhouse gases and reduce noise.'



Mining

Revenue in the mining product segment amounted to €1,455 million in the 2023 business year, representing an increase of €228 million or 18.6 % compared with the previous year.

Endurance in a turbulent market

The global focus on finding ways to reduce greenhouse gas emissions continued in 2023. The demand for the raw materials essential for building a zero-emission future and the equipment needed for extraction remained strong over the twelve-month period. Due to widespread geopolitical uncertainty, elevated inflation rates, labour shortages and high energy and production costs, 2023 was again a challenging year for mining.

Globally, there were mixed trends in terms of revenue in various regions. In Europe, there was an increase in revenue in EU countries as a whole, whereas a downturn in revenue was observed in non-EU countries. The overall decrease in revenue in North, Central and South America could be attributed to fluctuations in market conditions, but growth observed in Peru was encouraging in 2023. Increased revenue was particularly notable in the Africa and the Near and Middle East regions, with positive results especially in Ghana, Zambia and South Africa. Exponential growth was observed in Asia and Oceania, with encouraging results in Australia and Mongolia. Liebherr Mining's forward order book for many major markets, except for

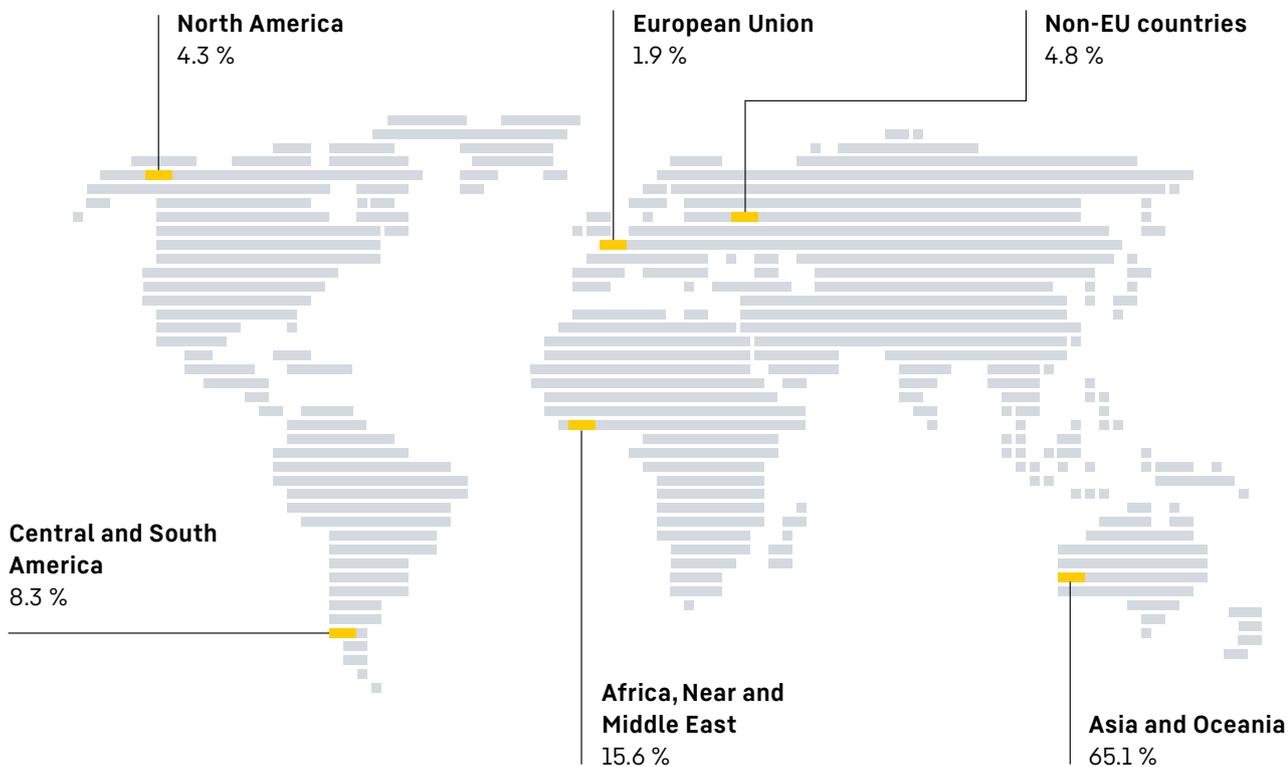
Australia, slowed in 2023, in line with the comprehensive global challenges facing the industry. Despite this, a significant increase in volumes was achieved and Liebherr delivered record results in 2023.

Progress in zero emission, autonomous and digital technologies

Liebherr's Mining product segment expanded its zero emission offerings this year. For the first time, Liebherr sold, and will install, a complete trolley system at a mine site in South America. The commissioning of this system is planned for 2024. Liebherr delivered the first electric excavators to an iron ore mine in Western Australia. Globally, multiple Liebherr machines were also repowered with Tier-4-compliant Liebherr engines.

In early 2023, the Autonomy Ready option for the T 264 haul truck was validated at Liebherr's Mining Technology Development Centre in the USA. Liebherr's Autonomous Haulage Solution project also reached an impressive milestone, with four T 264 trucks commissioned for validation at a customer's site in October.

Revenue by sales regions

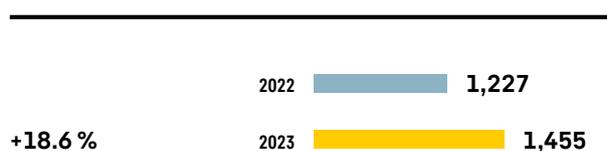


A growing number of Liebherr mining trucks and excavators are now powered with Liebherr’s D98 series of internal combustion engines. The first new excavators supplied with D98 engines were delivered to customers in Australia.

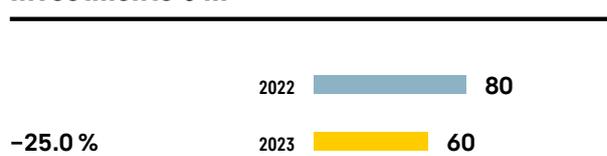
With large investments to aid increased production capacity, and a continuing focus on decarbonisation goals, Liebherr expects further growth in 2024 for its mining product segment.

Liebherr and Fortescue’s joint development of zero emission haulage trucks reached an exciting milestone in 2023, with the first T 264 trucks of the major order for Fortescue delivered this year. While these trucks have been supplied with diesel internal combustion engines, these will be replaced by battery and fuel cell technology once validated, which is well on the way to being completed.

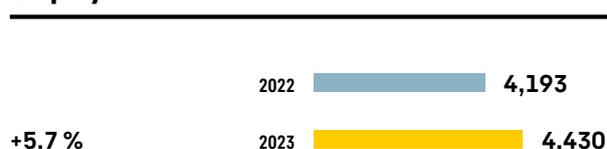
Revenue € m



Investments € m



Employees



‘Despite a challenging year, Liebherr Mining surpassed expectations and achieved its best year to date, while also developing a range of zero emission, autonomous and digital solutions to help customers future-proof their mining fleets.’



Mobile and crawler cranes

In the mobile and crawler cranes product segment, Liebherr recorded revenue of €3,452 million in the 2023 business year. This represents a €443 million or 14.7 % increase compared with the previous year.

Record crane deliveries

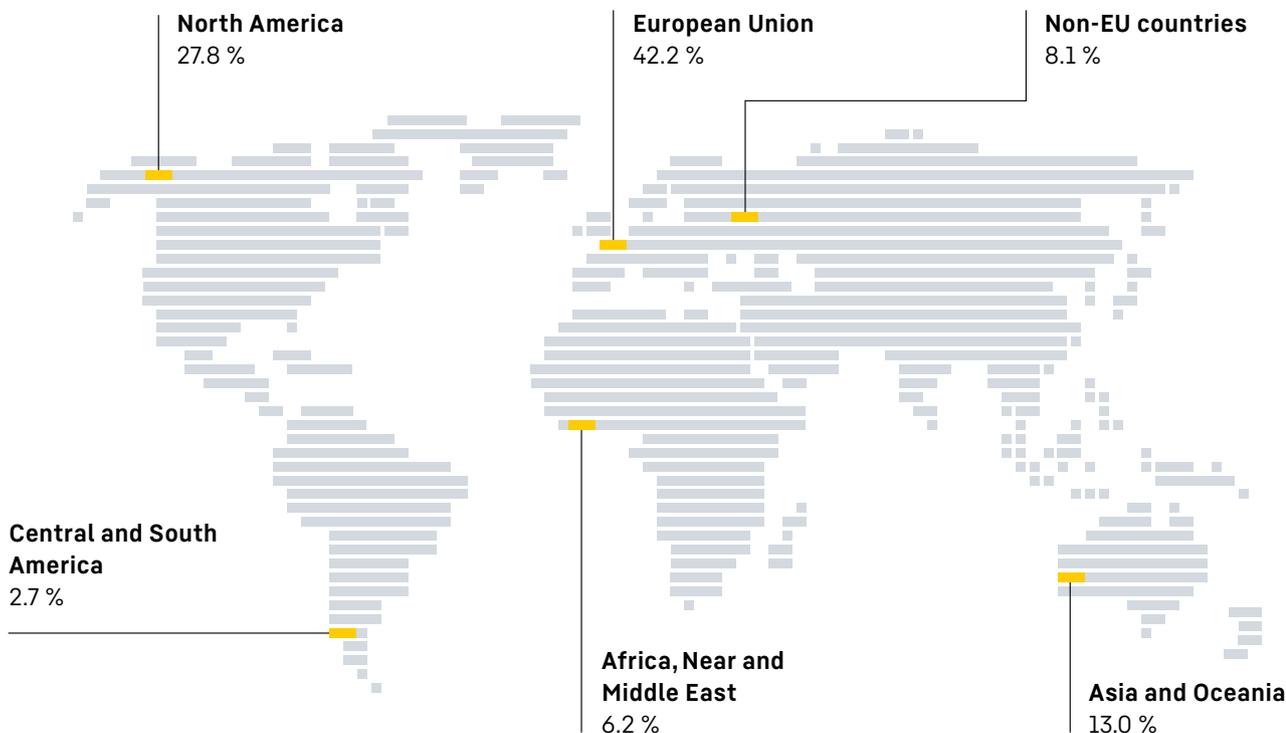
The global market for mobile and crawler cranes continued on a growth course in 2023, driven primarily by infrastructure projects and the increasing need for energy. Similar to the sector as a whole, Liebherr also saw growth, recording significant increases in revenue in the mobile and crawler cranes product segment and delivering more than 2,000 new machines from the Ehingen site (Germany) for the first time.

The core markets of the EU and North America achieved strong growth, influenced in particular by the positive trends in Germany, France and the USA. By contrast, revenue fell slightly in the non-EU countries – despite a positive performance in countries such as Norway. There was encouraging development in the Africa, Near and Middle East region and Asia and Oceania – with Australia, Indonesia and South Korea among the key drivers. Liebherr also achieved an increase in revenue in Central and South America, stimulated by Brazil in particular.

Focus on solutions for the energy transition

Liebherr unveiled several product innovations in 2023 and delivered the first models of new crane types, including the LTC 1050-3.1E compact crane. The hybrid version of this crane can run on electricity to eliminate emissions. The first delivery was also made of the second-largest Liebherr crawler crane – the LR 12500-1.0. Liebherr launched the LR 1700-1.0W, the most powerful narrow track crawler crane on the market, for efficient wind turbine assembly. A new technology was also specially developed for the use of smaller crawler cranes on pontoons and other floating structures: this new mode incorporates load curves for different angles of list and corresponding protection with load torque limitation. In combination with the Vertical Line Finder assistance system, this provides support for the crane operator to minimise potential diagonal pull when lifting or depositing a load. The pile-tilting device makes it possible to move long loads such as piles from a horizontal to a vertical position in the air using two winches, while preventing damaging diagonal pull on the boom.

Revenue by sales regions



Another highlight was the LTR 1150, with its particularly cost-effective transport concept. With a weight of just 60 t and width of 3.5 m, the telescopic crawler crane can be transported entirely on a low-loader.

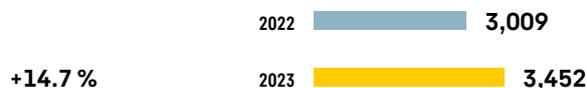
For digital solutions, Liebherr presented MyNotifier, a monitoring tool for wind conditions and battery status for greater machine safety and availability, alongside the telematics system Performance. This complements the MyLiebherr customer portal with an efficient fleet data management application.

One focus of development in 2023 was on further battery electric machines and on the production of several prototypes, including the LG 1800-1.0, a lattice boom crane intended primarily for the wind industry. Investments were also made into reducing carbon emissions at the Liebherr site in Ehingen (Germany).

'The expansion of digitalisation is also making significant progress with MyLiebherr as a digital ecosystem for the crane. The customer portal is paving the way for digital business models.'

Based on a good order situation, Liebherr has an optimistic outlook for 2024 in the mobile and crawler cranes product segment and anticipates further growth.

Revenue € m



Investments € m



Employees





Tower cranes

In the tower cranes product segment, Liebherr achieved €510 million in revenue, which translates to a €51 million or 9.1 % decrease compared to the previous year.

Difficult circumstances in Europe

Global construction output is rising and the international building sector is proving resilient despite high inflation and restrictive monetary policy. However, construction output is declining in Europe – the most important sales region for the product segment – with the heaviest impact on the advanced economies and particularly the residential construction sector. This slump in the construction industry in Europe and the uncertainty regarding trends in material costs and interest rates is affecting the order situation.

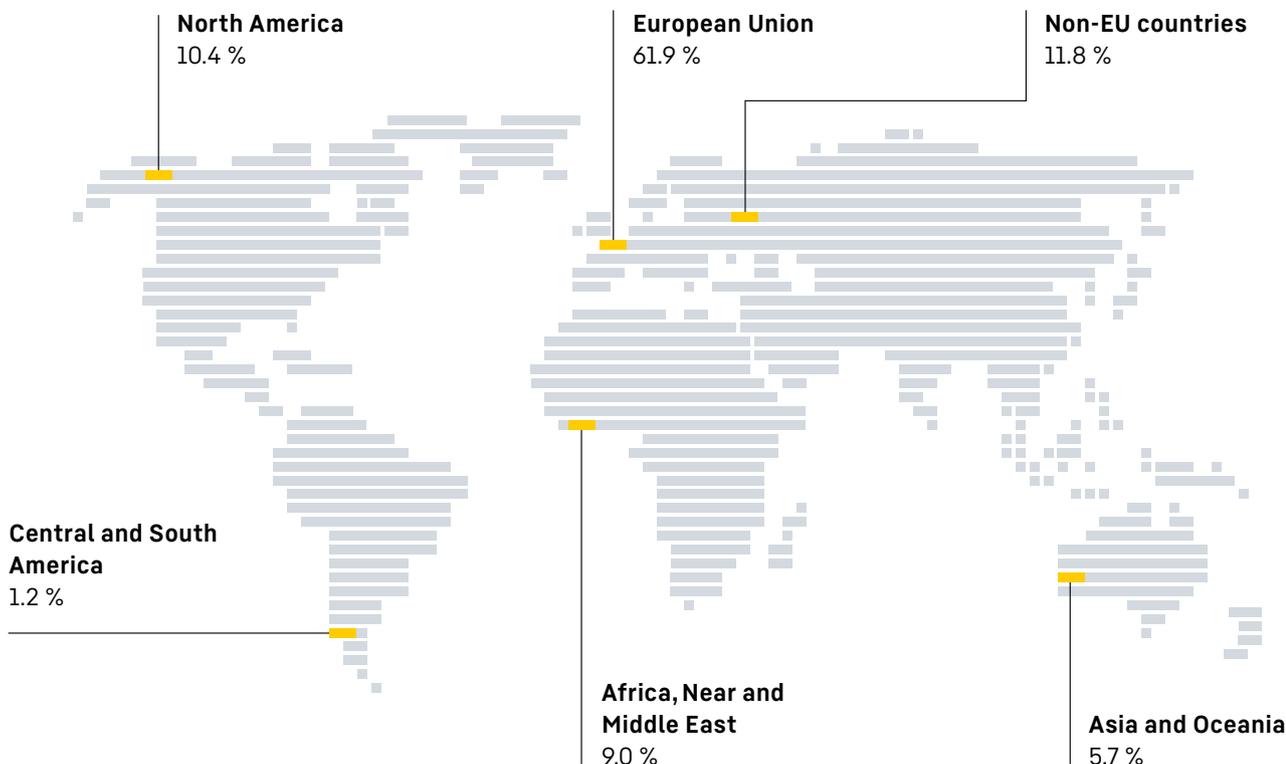
In the European Union, which is the product segment's main sales region, significant declines in revenue were recorded, in particular in Germany, Belgium and France. Non-EU countries also fell short of the previous year's levels. By contrast, there were encouraging trends in North America, Central and South America, and the Africa, Near and Middle East sales region. The US and Egyptian markets performed particularly well. There were declines in revenue in the Asia and Oceania sales region, in particular in India, Australia and Hong Kong.

Focus on innovation and research

The last business year also saw development work on new product platforms. One pioneering development was the Tower Crane Operating System 2, which will offer advanced control for many bottom-slewing cranes. Active collaboration with networks of renowned research institutes plays a central role in the development of the various concepts. The research activities range from basic groundwork for networking construction machines to solutions for improving the energy efficiency of tower cranes.

The Group showcased numerous machines with alternative drives as part of a construction project by Netze BW in Schemmerberg (Germany). The MK 73-3.1 mobile construction crane with electric operation was also used on the project. This three-axle machine is compact and manoeuvrable, meaning that it is extremely quick and flexible to use, particularly in areas that have already been built on. The crane is ready for action within ten minutes and can either be supplied with electricity from the site or via its integrated generator.

Revenue by sales regions



Another outstanding project from the last business year came when two luffing jib cranes – a 280 HC-L 12/24 and a 542 HC-L 18/36 – were used in the construction of New Zealand’s tallest residential building. The Liebherr Tower Crane Solutions project department supported the construction of the Seascope skyscraper by designing an efficient climbing process for both cranes. Once it has been completed in 2024, the building will be an impressive sight on Auckland’s skyline with its 52 floors and height of 187 m.

In view of the difficult market environment, Liebherr is anticipating revenue to fall again for the product segment in the coming business year.

‘The mobile construction crane area developed positively in the product segment. These cranes enable flexible and low-emission electric operation on building sites, for example using the site’s electricity supply or the Liduro Power Port. This type of hybrid power concept is featured in the optimised MK 140-5.1, which Liebherr will start supplying in 2024.’

Revenue € m



Investments € m



Employees





Concrete technology

In the concrete technology product segment, Liebherr recorded revenue of €302 million in the 2023 business year, reflecting an increase of €49 million or 19.4 % year-over-year.

Resilience in a dynamic global landscape

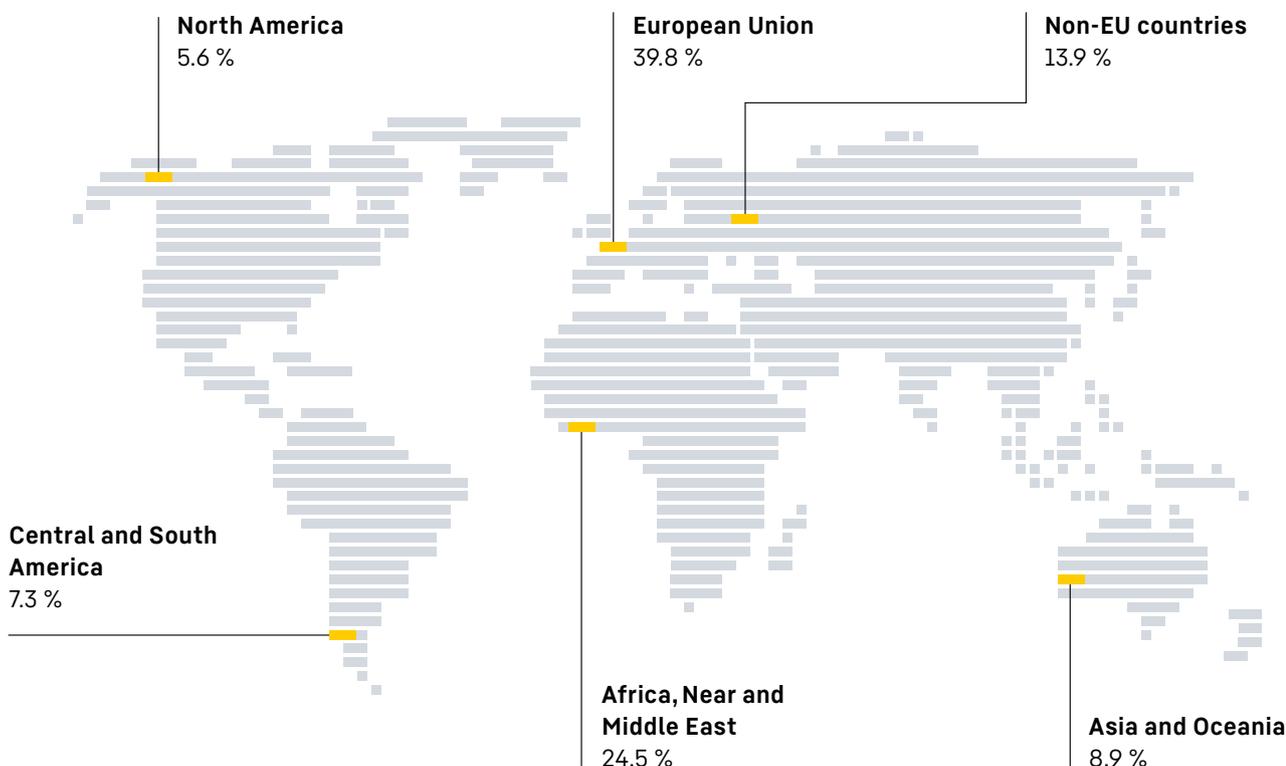
At the beginning of 2023, Liebherr experienced a delay in processing a high order backlog in Western Europe, with supply chains stabilising mid-year. Significant challenges such as a sharp rise in interest rates and the uncertain global political situation led to increasingly negative investment behaviour in the industry. In the European Union, revenue increased overall, with Germany and France also progressing well. In the non-EU countries, a slight upturn in growth was recorded. In 2023, the North, Central and South America region observed a modest dip in revenue, with the USA facing a decline in residential construction. Revenue also increased significantly in the Africa, Near and Middle East region. In the whole region of Asia and Oceania, revenue climbed.

Commitment to sustainable innovation and digitalisation

At the cutting edge of product design, the development of the fully electric truck mixers and the new concrete mixing plant platform marked a significant milestone in pioneering concrete technology. The Mobilmix and Betomix plant platform incorporates innovations that contribute to significant energy efficiency of up to 30 %, dosing accuracy, durability and maintenance intervals. Liebherr's continued commitment to innovative technologies guarantees high precision and saves end customers energy, raw materials, time and CO₂ emissions.

Concrete technology embraced further digitalisation measures with the creation of a portal for users to optimise the use of materials and energy. To better support internal processes and value streams, agile work methodologies were also implemented throughout the organization.

Revenue by sales regions



For concrete pumps, further modernisation and improvements were made to the current generation of the controls, especially with the expansion of the LiPS control function, and is progressing into 2024 for new series machines.

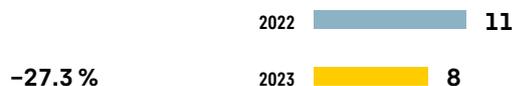
Looking ahead, Liebherr anticipates an economic slow-down in 2024. Therefore, the focus in the product segment will be on reducing inventories and saving costs, while remaining poised for continuous improvements and environmental responsibility as a leader in the industry.

‘Commitment to innovation, sustainability and quality drives Liebherr to adapt in an ever-evolving global landscape, ensuring resilience and customer-centricity.’

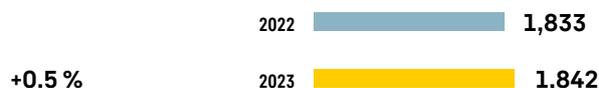
Revenue € m



Investments € m



Employees





Maritime cranes

In the maritime cranes product segment, Liebherr achieved revenue of €977 million in the 2023 business year, which represents an increase of €165 million or 20.3 % compared to the previous year.

Positive results across all product areas

There was generally a normalisation on the global maritime goods handling market in 2023 in terms of raw material costs and freight rates. Although the global market volume for mobile harbour cranes contracted slightly, Liebherr managed to achieve an increase in revenue in this product area and further strengthen its position as a global market leader. There was a particularly positive trend on the offshore cranes market. Liebherr saw an increase in revenue here and in the two areas of ship cranes and container cranes. Revenue growth was generated in customer service in 2023 through an extensive range of services, spare parts and other service products for the machine fleet that is in operation around the world.

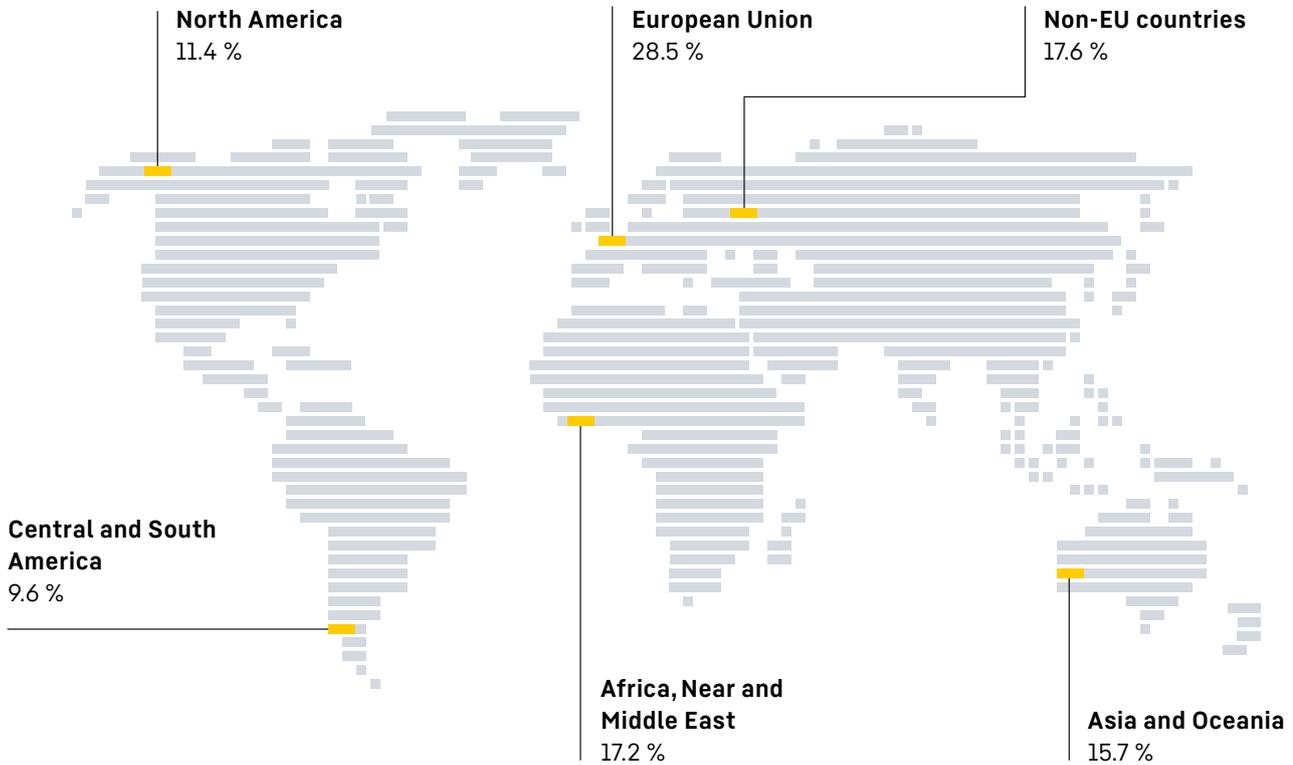
A breakdown of revenue by region reveals particularly positive growth in Central and South America: Liebherr achieved a significant increase in revenue here, although the region remains the smallest market for the maritime cranes product segment. The revenue development was also encouraging in North America, the non-EU countries, the EU, and Asia and Oceania. In the EU and the Asia and Oceania regions, Liebherr had experienced a decline in

revenue in the previous year, but has now successfully recovered. Growth was driven in particular by Germany, Poland and Indonesia. There was a downturn in business in the Africa, Near and Middle East region.

Focus on automation and alternative drives

Alternative drives and automation were key topics in the maritime cranes product segment in the business year. Liebherr is setting new standards in electrification with the first fully electric transshipment crane – the CBG 500 E – and the first fully electric heavy-lift ship crane – the LS 800 E. Furthermore, all rubber tyre gantry cranes ordered in 2023 were either fully electric or hybrid. With these products, Liebherr is responding to customer demand for more environmentally friendly solutions. Alongside alternative drives, there is also a particular focus on automation. For instance, the latest series of mobile harbour cranes is equipped with the newly developed Master V control system and state-of-the-art sensor technology. These technologies provide the basis for integrating future assistance and partial automation systems and enabling communication for individual components.

Revenue by sales regions

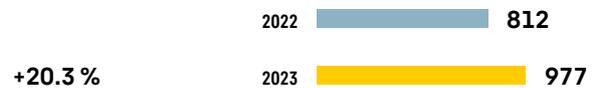


In offshore cranes, the Liebherr Intelligent Maintenance System (LiMain) enables semi-automated maintenance procedures, where the level of automation can be individually adjusted. The system is predominantly used on unmanned offshore platforms in the German North Sea and Baltic Sea areas.

The development and research focus on automation and alternative drive concepts ensures that growing customer needs are being met on the maritime goods handling market.

As Liebherr has started the year with a strong order situation in the maritime cranes product segment, further revenue growth is expected for 2024 too.

Revenue € m



Investments € m



Employees



'Alternative drives and automation are important factors for maritime crane production and enable solutions for reduced environmental impact.'



© Eve Air Mobility

Aerospace and transportation systems

In its aerospace and transportation systems product segment, Liebherr achieved revenue of €1,500 million, which represents an increase of €189 million or 14.4 % compared to the previous year.

Upwards amidst the surge

In 2023, Liebherr's revenue outpaced pre-pandemic levels. The air traffic recovery started in the Americas and Europe, followed by the Middle East. Asia and China came back strong in the course of 2023. Aircraft production ramped up in all market segments and customer services sales benefited from the installed base and the continuation of current aircraft operations.

Railway market development varied across regions. India and Egypt launched massive railway programmes for urban public transport, while the US invested heavily in the railway sector. However, China faced demand saturation.

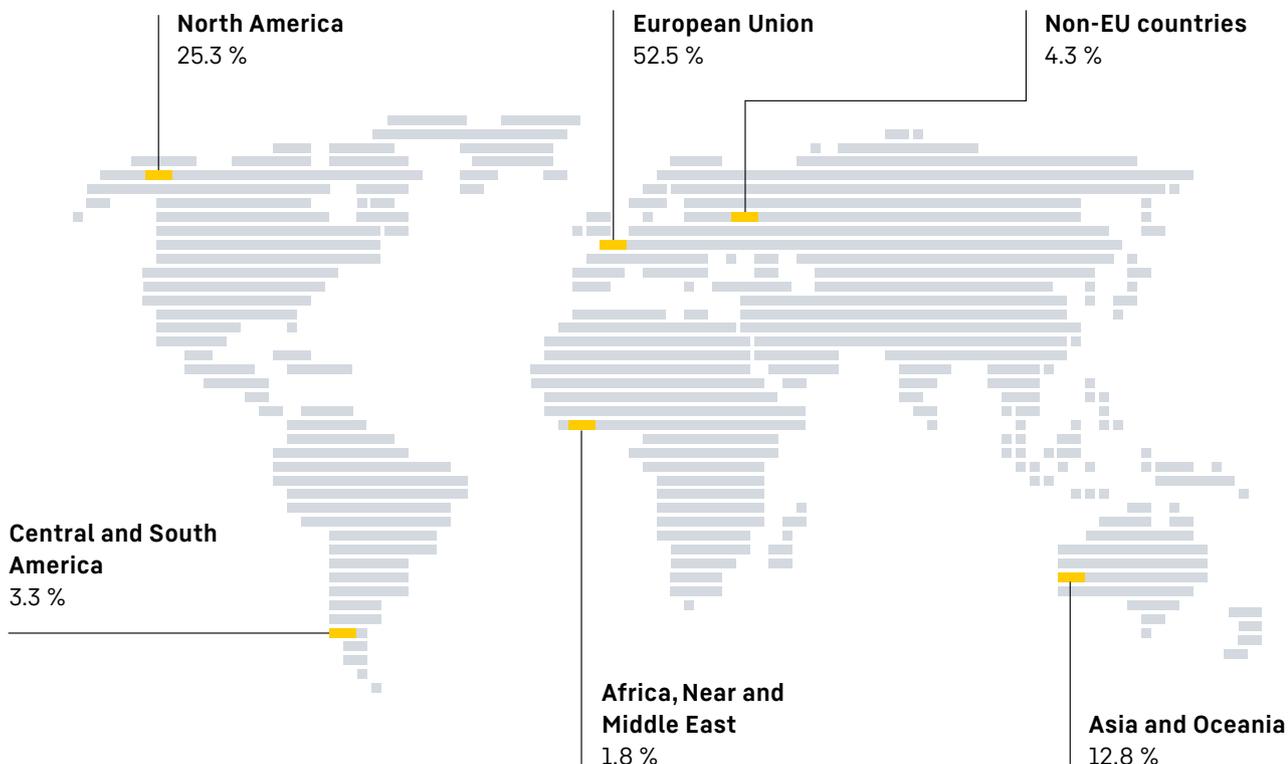
Despite a generally positive outlook, challenges emerged due to geopolitical shifts, underscoring the fragility of global supply chains in the aerospace and railway industries. High inflation rates, increased energy costs and a difficult labour market impacted results.

Solutions for more sustainable mobility

Liebherr is supporting Airbus's ambition to produce the world's first hydrogen-powered commercial aircraft by 2035 by developing the air supply for the fuel cell system dedicated to aircraft propulsion. A hydrogen test bench was also installed in the test centre in Toulouse (France), with the aim of providing fuel cell power supply for non-propulsive onboard systems. Additionally, Liebherr formed a strategic collaboration with ZF, the German automotive equipment manufacturer to develop new high-speed compressors for medium, heavy-duty and long-haul hydrogen fuel cell-powered vehicles, combining the know-how of both system designers.

Furthermore, Eve Air Mobility chose Liebherr to supply electro-mechanic actuators (EMAs) for the flight control system of its eVTOL, an electrically powered vertical take-off and landing aircraft. The EMAs, with fully integrated electronics, represent a pioneering application for primary flight control.

Revenue by sales regions



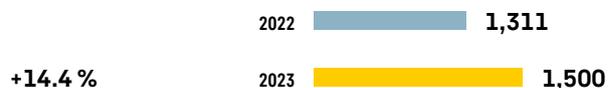
As an industry leader in low GWP (global warming potential) solutions, Liebherr was selected by France's national railway company SNCF to equip the Occitania region's fleet trains with new environmentally friendly air cycle air-conditioning systems. In the rolling stock market, Liebherr also further developed heating, ventilation and air-conditioning systems using propane or CO₂ as a refrigerant.

In 2023, research focused on solutions for future electric aircraft with improved aerodynamics, airless braking technologies as a first step towards pneumatic-free trains, alternative energy sources for reduced emissions, thermal management and improved cabin air quality.

Liebherr further invested in its industrial and maintenance, repair and overhaul (MRO) footprint by expanding core capacities and strategically repositioning global manufacturing and supply chain activities.

'Liebherr is an industry leader with solid foundations and is continuously investing above industry average ratios in research, technology and product development, preparing the future of sustainable mobility.'

Revenue € m

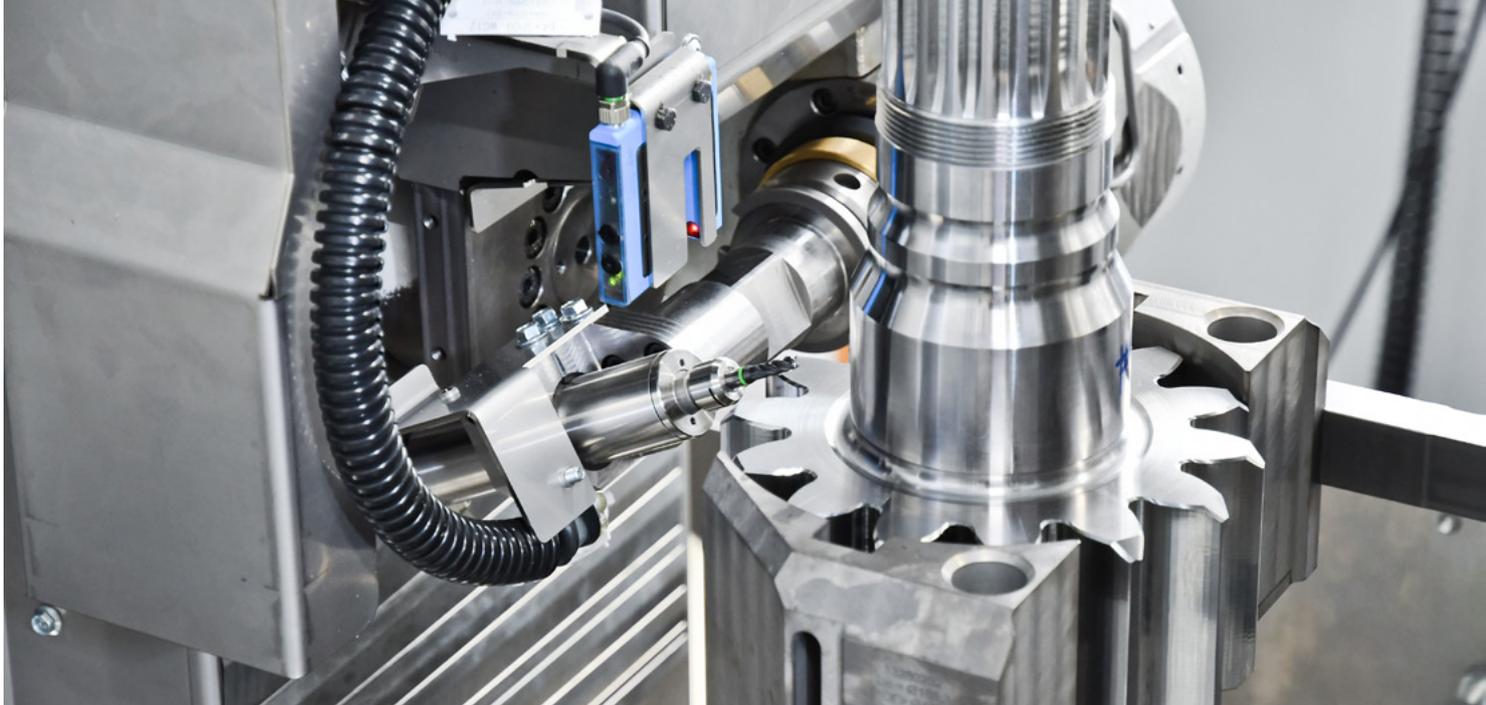


Investments € m



Employees





Gear technology and automation systems

In the gear technology and automation systems product segment, Liebherr recorded revenue of €280 million in the 2023 business year. This represents an increase of €75 million or 36.6 % year-on-year.

Bucking the industry trend with revenue growth

According to the German Machine Tool Builders' Association (VDW), there was a slight downward trend in the machine tool industry in the previous business year. Growth industries such as e-mobility, wind power and aerospace provided a boost, but the standard machine business was weaker. In contrast to the general trend in the sector, Liebherr recorded an increase in revenue across all areas with its gear technology and automation systems product segment.

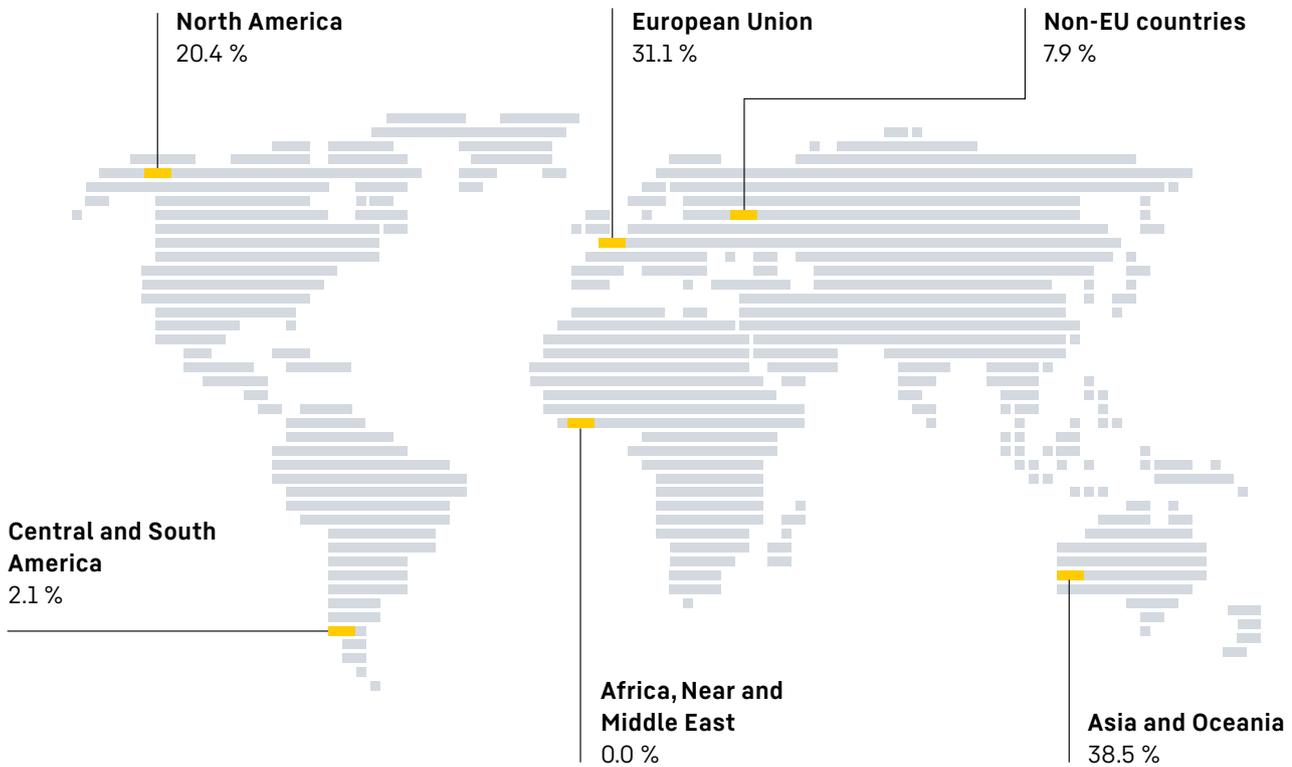
Business was very positive in both the EU and non-EU countries, particularly in Germany and the United Kingdom. In the gear technology product area, revenue growth was recorded in the Asia and Oceania sales region, driven by China. However, the region saw a negative trend in revenue in the automation systems product area. After a decline in 2022, business in North America returned to an encouraging trend, primarily due to the USA.

Automated battery pack disassembly

In the automation systems product area, Liebherr developed automated disassembly processes for electric vehicle battery packs as part of the ZIRKEL research project funded by the German Federal Ministry of Education and Research (BMBF). The aim was to disassemble and sort components mechanically in order to recycle valuable raw materials in a way that makes both environmental and economic sense. The processes need to be automated to achieve high recycling rates and to process the growing volumes of returned materials cost-effectively. The research project aims to establish sustainable, carbon-neutral battery production throughout the entire process chain. The first pilot plant was installed in July 2023 at the Open Hybrid LabFactory research campus in Wolfsburg (Germany).

In the area of gear technology, Liebherr designed a new generation of gear cutting machines for workpieces with a diameter of up to 500 mm. These offer maximum process

Revenue by sales regions



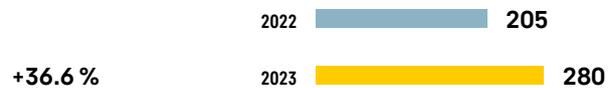
reliability, greater flexibility and high productivity. The revised concept includes a new machine bed design for improved chip evacuation and constant temperature behaviour. The LC 500 gear hobbing machine features an improved HH 240 hob head for high performance. The optional integrated chamfering device is a unique feature that enables chamfering of workpieces during the machining process with both ChamferCut and FlexChamfer. Optimised ergonomics for work areas and improved user interfaces help to improve user-friendliness.

Developing digital solutions is an overriding aim across the entire product segment. One example of this is the virtual commissioning of a palletising cell with automatic loading of a gear skiving machine. The preliminary simulation via a digital twin saves time and costs during the actual commissioning and ensured planning reliability for the start of production.

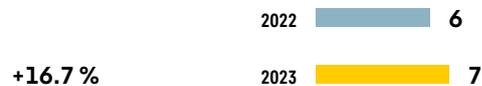
'Developing digital solutions is an overriding aim across the entire product segment.'

Despite a successful business year, Liebherr is cautiously optimistic about 2024 in the product segment.

Revenue € m



Investments € m



Employees





Refrigerators and freezers

Liebherr achieved revenue of €1,171 million in the refrigerators and freezers product segment in the 2023 business year. This represents a year-on-year increase of €19 million or 1.6 %.

Generally challenging market conditions

The world market volume for large electrical appliances fell slightly for the second year running in 2023. Geopolitical developments, along with factors negatively impacting investment such as increasing energy prices and interest rates, rising construction costs and inflation, dampened consumer confidence to levels below the long-term average. A distinct market saturation and an out-of-home focus among consumers have been seen in the wake of the pandemic.

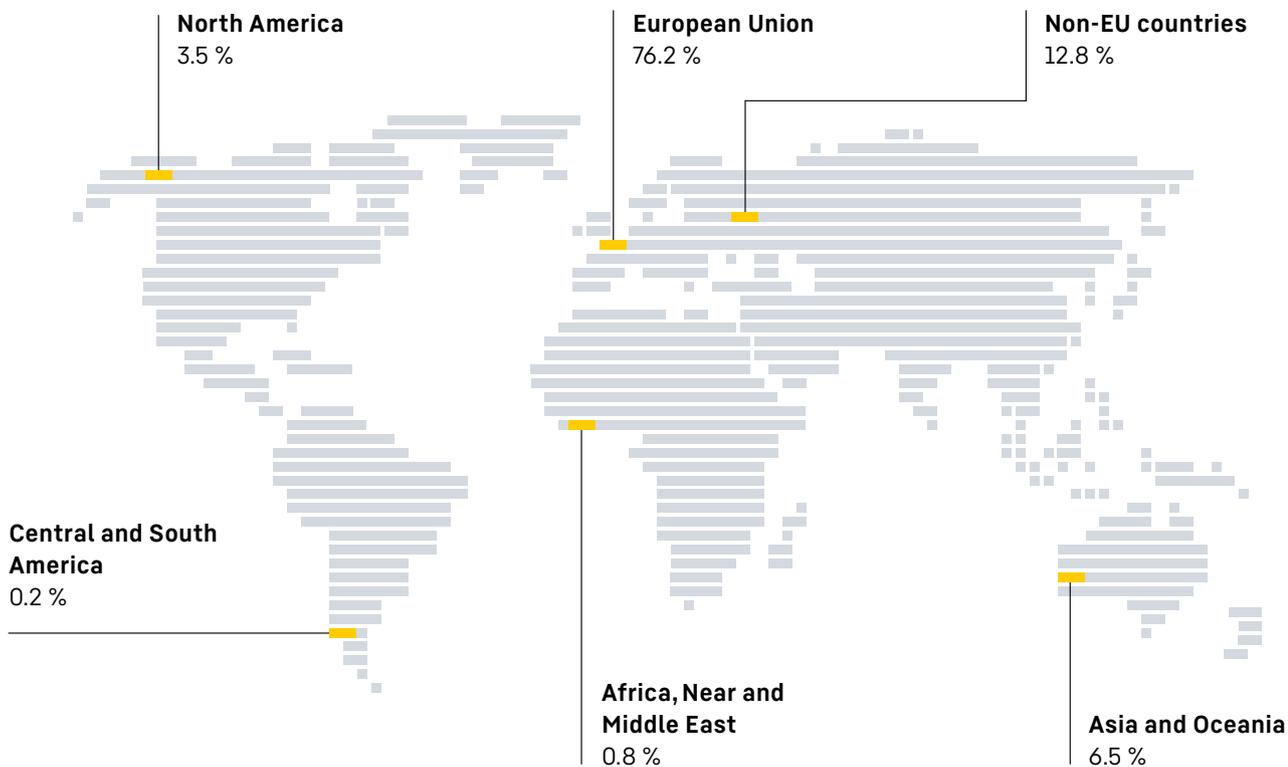
However, revenue grew in the European Union, largely thanks to Germany, the Netherlands and Belgium. A slight decline in revenue was recorded in the non-EU countries, as well as in the Central and South America region and Asia and Oceania. Good performance in the USA and, to a lesser extent, in Canada resulted in strong revenue growth in North America. In the Africa, Near and Middle East region, revenue rose slightly, driven mainly by Qatar and the United Arab Emirates.

Innovative technologies and sustainability are still on trend

In 2023, replacement purchases, multi-door appliances and smart functions were at the forefront of consumers' minds, as were cooling capacity and convenience. A heightened awareness of energy efficiency and the use of environmentally friendly materials is clearly evident and is being promoted by legislation. Liebherr again responded to these demand trends in the last business year with various new products and innovations.

A highlight in the expansion of the new free-standing appliance series is the introduction of the innovative BluRoX technology in the door of the FNb 5056 freezer on the German market. Instead of conventional polyurethane foam, the new vacuum perlite technology uses a more effective form of cold insulation: a vacuum. Finely ground volcanic rock, known as perlite, stabilises the vacuumed components. The benefits include outstanding energy efficiency, circular product design and more space inside the appliance. The BluRoX insulation is around a third thinner, increasing the internal volume by around 25 %.

Revenue by sales regions

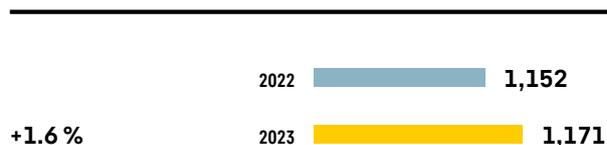


The new series of GrandCru and GrandCru Selection wine storage fridges was also launched with new designs and functions for ideal storage in the perfect temperature and humidity. For example, the HumidityControl function can be used to create and maintain a perfect storage climate.

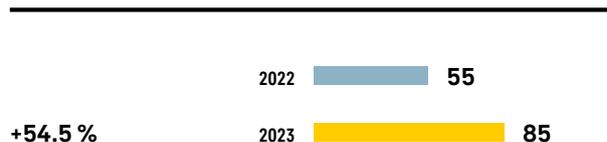
In digital products, Liebherr launched the HNGRYnsite modular fridge camera, which has been on the market in Germany, Austria and the United Kingdom since summer 2023 and works with the existing HNGRY app. The camera takes a picture inside the fridge as soon as the door closes and updates it in the app. The camera and app thus provide real-time support during shopping and can prevent poor purchases and food waste.

Liebherr anticipates further growth in revenue for the 2024 business year in the refrigerators and freezers segment.

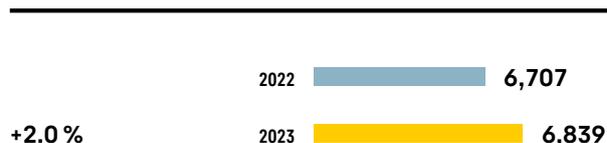
Revenue € m



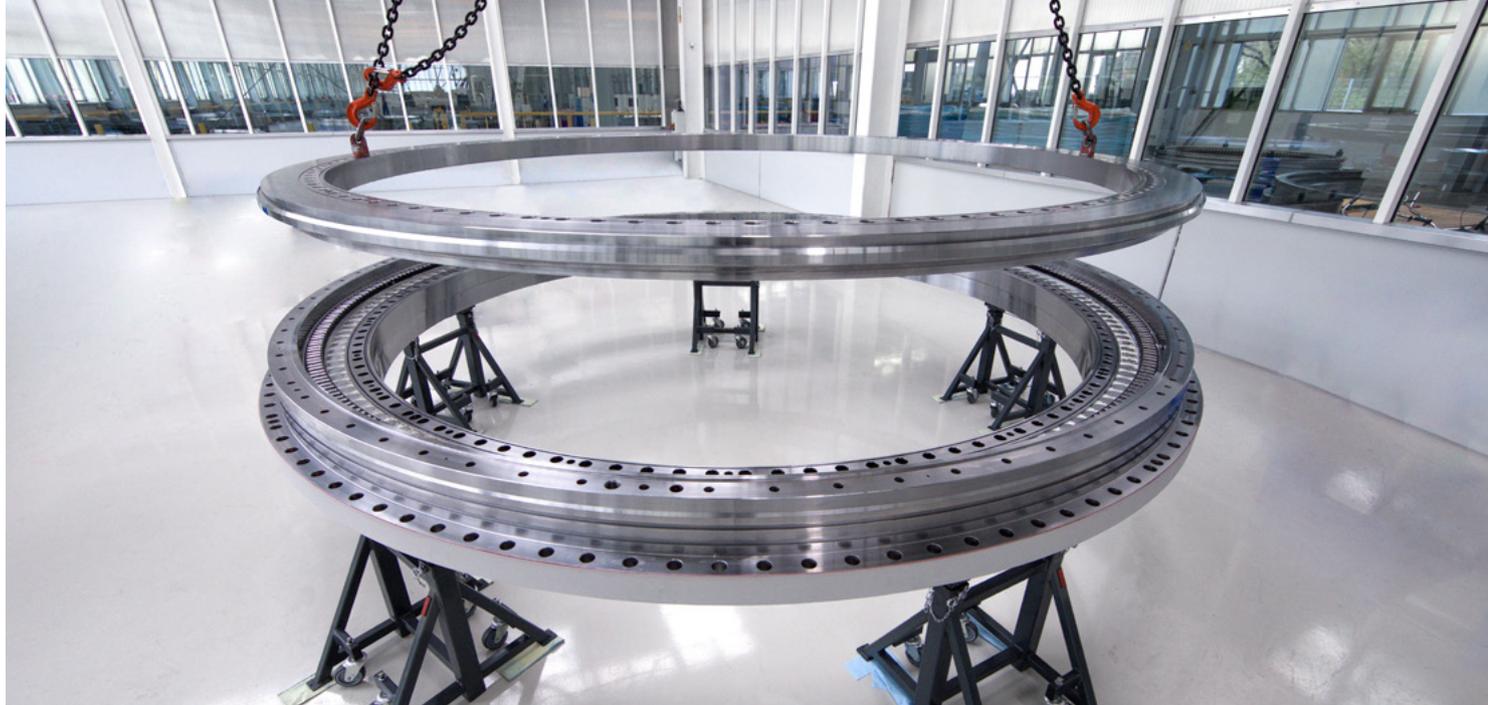
Investments € m



Employees



'As a specialist in refrigeration and freezing, Liebherr focuses on quality and leads the sector with research and development for sustainable success that benefits customers.'



Components

In the components product segment, Liebherr achieved revenue of €469 million in the 2023 business year, which represents an increase of €8 million or 1.7 % on the previous year.

Upward trend despite challenges

In the 2023 business year, Liebherr successfully increased its revenue in the components segment. Performance once again varied between the individual sales regions. Asia and Oceania recorded revenue growth, driven by Singapore, Hong Kong and Australia. There was a decline in revenue in North America and in the Africa, Near and Middle East region. Central and South America also saw a decrease, due primarily to developments in Brazil. Despite growth stimuli in Switzerland, there were also declines in non-EU countries. In the European Union, Germany and France contributed substantially to the increase in revenue.

In the individual industry segments, revenue growth was recorded for tunnel boring machines, machine and plant construction, decentralised energy systems, the mining aftermarket, special-purpose vehicles, conveyor and material handling equipment, and in the construction industry. Business in the wind sector also improved compared to the previous year.

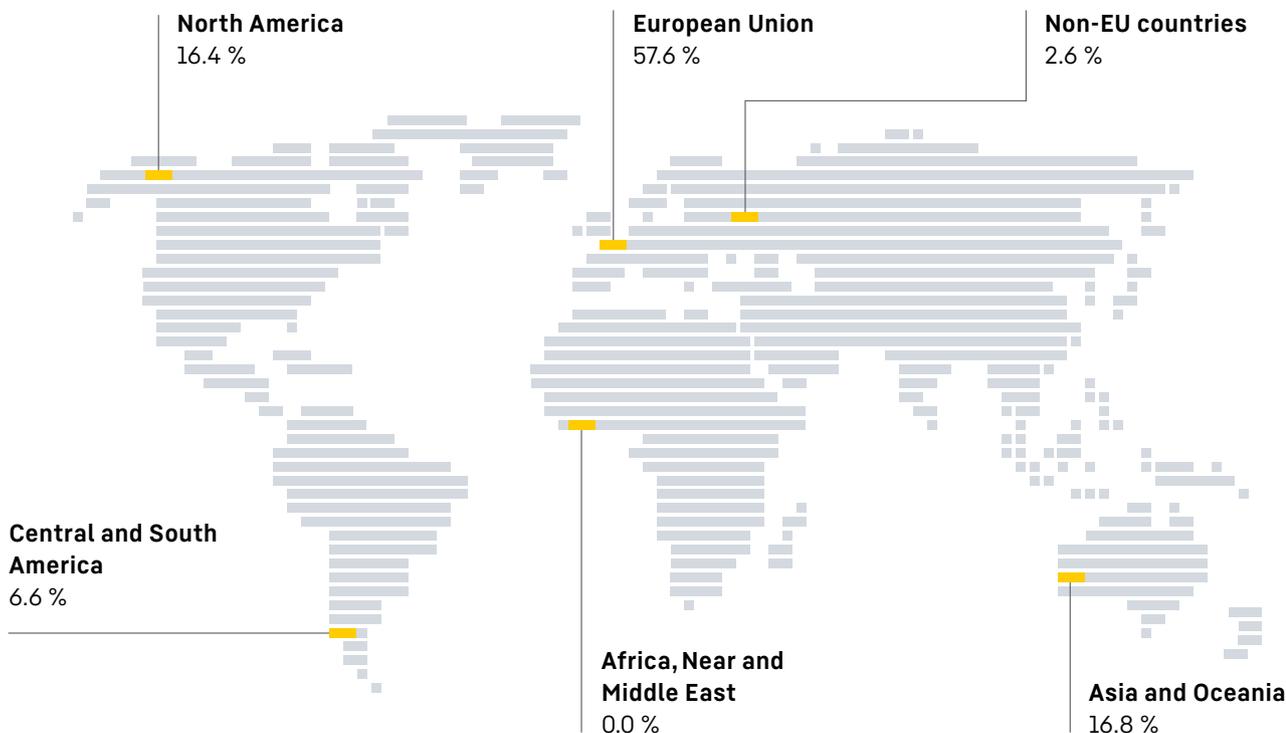
On course with an open approach to technology

In 2023, Liebherr continued to develop alternative drive technologies, with a particular emphasis on electrification for construction sites, and conducted several field test projects using the mobile Liduro Power Port (LPO) energy storage system to supply power to electric machines without any local emissions. Series production of the LPO in various power ranges with up to 160 kW/kWh is planned for 2024, along with the development of further sizes.

With the EU target of becoming carbon neutral by 2050, Liebherr continues to pursue an open approach to technology. This has included validation of the entire combustion engine portfolio and injection technology for use with HVO. The D976 six-cylinder in-line engine for agriculture and construction provided an excellent example of this as the best in its class.

The new digital products covered a wide spectrum in 2023 – from an app for monitoring the mobile energy storage system to a complete IoT solution for industry and mobile machines. The IoT solution was a joint project with

Revenue by sales regions



renowned technology partners, ensuring not only a security infrastructure with active device management, but also a simple route to IoT and AI applications.

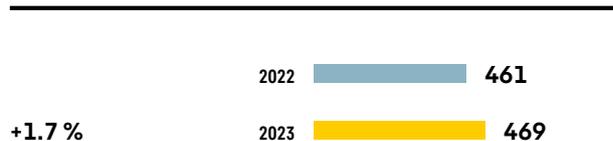
Key projects also included contracts to deliver rope winches for the world's largest onshore ring crane and to supply a total of 130 components for ten all-electric heavy-lift ship cranes. New areas of application were also opened up, for example the antennas for the next-generation very large array for space exploration. The collaboration with a leading antenna manufacturer was crucial here. The required slewing bearings and drives for azimuth adjustment and inclination of the antennas were supplied.

Investment continued into the expansion of production in China, production facilities for hydraulic cylinders and the construction of a state-of-the-art test facility for validating main bearings for offshore wind turbines in Germany.

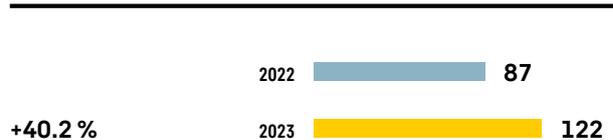
'Profound expertise, limitless commitment and unconventional thinking enable Liebherr to develop and actively shape the technologies of the future.'

Liebherr has an optimistic outlook for 2024 in the components product segment and will continue to forge ahead with electrification and the development of digital solutions – be it new-generation mobile digital cameras or solutions such as the LiXplore Bird's Eye surround view system, camera monitor systems, IoT and person-detection systems.

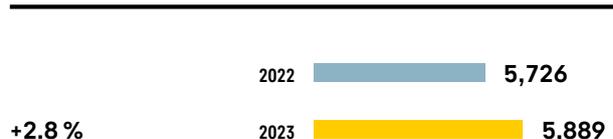
Revenue € m



Investments € m



Employees





Group companies

The Group

Summary of Group companies

Europe

Austria

Hotel Löwen Schruns GmbH
Schruns

Interalpen-Hotel Tyrol GmbH
Telfs

Liebherr-Hausgeräte Lienz GmbH
Lienz

Liebherr-International Austria GmbH
Bischofshofen

Liebherr-MCCtec GmbH
Nenzing

Liebherr Österreich Vertriebs- und Service GmbH
Puch bei Hallein

Liebherr-Transportation Systems GmbH
Korneuburg

Liebherr-Transportation Systems GmbH & Co KG
Korneuburg

Liebherr-Werk Bischofshofen GmbH
Bischofshofen

Liebherr-Werk Nenzing GmbH
Nenzing

Liebherr-Werk Telfs GmbH
Telfs

Azerbaijan

Liebherr-Azeri LLC
Baku

Belgium

Liebherr-Appliances Belgium NV
Ternat

Liebherr-Belgium BV
Antwerp

Bulgaria

Liebherr-Concrete Technology Marica EOOD
Radinovo

Liebherr-Hausgeräte Marica EOOD
Radinovo

Liebherr-Transportation Systems Marica EOOD
Radinovo

Czech Republic

Liebherr-Stavební stroje CZ s.r.o.
Brno

Denmark

Liebherr-Danmark ApS
Horsens

Finland

Liebherr-Finland Oy Ab
Helsinki

France

Liebherr-Aerospace & Transportation SAS
Toulouse

Liebherr-Aerospace Montauban SAS
Montauban

Liebherr-Aerospace Toulouse SAS
Toulouse

Liebherr-Components Colmar SAS
Colmar

Liebherr Distribution et Services France SAS
Niederhergheim

Liebherr-France SAS
Colmar

Liebherr-Location France SAS
Niederhergheim

Liebherr-Mining Equipment Colmar SAS
Colmar

Liebherr-Mining Equipment SAS
Colmar

Société de l'Aéroport de Colmar SAS
Colmar

Germany

Hans Liebherr-Hilfe e.V.

Biberach an der Riss

Liebherr-Aerospace Lindenberg GmbH

Lindenberg

Liebherr-Aviation GmbH

Biberach an der Riss

Liebherr-Baumaschinen Vertriebs- und Service GmbH

Dettingen an der Iller

Liebherr-CMCtec GmbH

Biberach an der Riss

Liebherr-Components GmbH

Biberach an der Riss

Liebherr-Components Biberach GmbH

Biberach an der Riss

Liebherr-Components Deggendorf GmbH

Deggendorf

Liebherr-Components Kirchdorf GmbH

Kirchdorf an der Iller

Liebherr-Digital Development Center GmbH

Ulm

Liebherr-Electronics and Drives GmbH

Lindau

Liebherr-EMtec GmbH

Kirchdorf an der Iller

Liebherr-Ettlingen GmbH

Ettlingen

Liebherr-Hausgeräte GmbH

Ochsenhausen

Liebherr-Hausgeräte Ochsenhausen GmbH

Ochsenhausen

Liebherr-Hausgeräte Vertriebs- und Service GmbH

Ulm

Liebherr-Hydraulikbagger GmbH

Kirchdorf an der Iller

Liebherr-International Deutschland GmbH

Biberach an der Riss

Liebherr-IT Services GmbH

Kirchdorf an der Iller

Liebherr-Logistics GmbH

Kirchdorf an der Iller

Liebherr-MCCtec Rostock GmbH

Rostock

Liebherr-MCCtec Vertriebs- und Service GmbH

Hamburg

Liebherr-Mietpartner GmbH

Ludwigshafen am Rhein

Liebherr-Mischtechnik GmbH

Bad Schussenried

Liebherr-Purchasing Services GmbH

Biberach an der Riss

Liebherr-Transportation Systems Mannheim GmbH

Mannheim

Liebherr-Verzahntechnik GmbH

Kempten

Liebherr-Werk Biberach GmbH

Biberach an der Riss

Liebherr-Werk Ehingen GmbH

Ehingen (Donau)

Liebherr-Wohnungsbau GmbH

Kirchdorf an der Iller

TerraVac GmbH

Karlstadt

Zimmermann Optik GmbH

Roggentin

Hungary

Liebherr-Építőipari Gépek Magyarország Kft.

Győr

Ireland

Killarney Hotels Ltd.

Killarney

Liebherr-Construction Equipment Ireland Limited

Rathcoole

Liebherr Container Cranes Ltd.

Killarney

Europe

Italy

Liebherr-EMtec Italia S.p.A.

Lallio

Liebherr-Italia S.p.A.

Monfalcone

Liebherr-Utensili s.r.l.

Collegno

The Netherlands

Liebherr-Appliances Netherlands B.V.

Uithoorn

Liebherr-Maritime Benelux B.V.

Amersfoort

Liebherr-Nederland B.V.

Amersfoort

Norway

Liebherr-Norge AS

Ingeberg

Poland

Liebherr-Polska sp. z o.o.

Ruda Śląska

Portugal

Liebherr Portugal, Lda.

Venda do Pinheiro

Romania

Liebherr-Romania S.R.L.

Bucharest

Russia

Liebherr-Aerospace Nizhny Novgorod OOO

Nizhny Novgorod

Liebherr-Aerospace Russland OOO

Moscow

Liebherr Financial Services OOO

Moscow

Liebherr Financial Services OOO

Moscow

Liebherr-Russland OOO

Moscow

Sweden

Liebherr-Sverige AB

Västerås

Switzerland

Eglesia AG

Bulle

Liebherr-Baumaschinen AG

Reiden

Liebherr-Components AG

Nussbaumen

Liebherr-Component Technologies AG

Bulle

Liebherr-Export AG

Nussbaumen

Liebherr-Hotels AG

Bulle

Liebherr-Industrieanlagen AG

Bulle

Liebherr-International AG

Bulle

Liebherr-Intertrading AG

Bulle

Liebherr Machines Bulle SA

Bulle

Mariso Bulle S.A.

Bulle

Africa, Near and Middle East

Spain

Liebherr Iberica, S.L.

Azuqueca de Henares

Liebherr Industrias Metálicas, S.A.

Pamplona

Turkey

Liebherr Makine Ticaret Servis Limited Şirketi

Istanbul

United Kingdom

Liebherr-Great Britain Ltd.

Biggleswade

Liebherr-Rental Ltd.

Biggleswade

Liebherr Sunderland Works Ltd.

Sunderland

Algeria

Liebherr Algérie, EURL

Algiers

Ghana

Liebherr-Ghana Ltd.

Accra

Morocco

Liebherr-Maroc SARL

Casablanca

Mozambique

Liebherr-Mozambique, Lda.

Maputo

Nigeria

Liebherr-Nigeria Ltd.

Abuja

Saudi Arabia

Saudi Liebherr Company Ltd.

Jeddah (60 %)

South Africa

Liebherr Africa Holding (Pty) Ltd

Springs

Liebherr Africa Investment (Pty) Ltd

Springs

Liebherr-Africa (Pty) Ltd

Springs

United Arab Emirates

Liebherr Equipment Services Middle East L.L.C

Dubai

Liebherr Middle East FZE

Dubai

Zambia

Liebherr Zambia Ltd.

Lusaka

North America

Canada

Liebherr-Canada Ltd.
Burlington, ON

Mexico

Liebherr Mexico, S. de R.L. de C.V.
Mexico City
Liebherr Monterrey, S. de R.L. de C.V.
Monterrey
Liebherr Servicios Monterrey, S. de R.L. de C.V.
Monterrey

USA

HL Farm, LLC
Newport News, VA
Liebherr Aerospace Saline, Inc.
Saline, MI
Liebherr-America, Inc.
Newport News, VA
Liebherr Gear and Automation Technologies, Inc.
Saline, MI
Liebherr Mining Equipment Newport News Co.
Newport News, VA
Liebherr USA, Co.
Newport News, VA

Central and South America

Argentina

Liebherr-Argentina S.A.
Buenos Aires

Brazil

Liebherr Aerospace Brasil LTDA
Guaratinguetá
Liebherr Brasil LTDA
Guaratinguetá

Chile

Liebherr Chile SpA
Santiago de Chile

Colombia

Liebherr Colombia SAS
Bogotá D.C.

Panama

Liebherr Panama S.A.
Panama City

Peru

Liebherr Peru S.A.C.
Lima

Asia and Oceania

Australia

Liebherr-Australia Pty. Ltd.
Adelaide

India

Liebherr Appliances India Private Limited
Aurangabad

Liebherr CMCTec India Private Limited
Pune

Liebherr India Private Limited
Mumbai

Liebherr Machine Tools India Private Limited
Bangalore (60 %)

Indonesia

PT. Liebherr Indonesia Perkasa
Jakarta

Japan

Liebherr Japan Co., Ltd.
Yokohama

Kazakhstan

Liebherr Kasachstan TOO
Almaty
LHF Kasachstan
Almaty

Malaysia

Liebherr Appliances Kluang SDN. BHD.
Kluang
Liebherr Sales Kluang SDN. BHD.
Kluang

New Caledonia

Liebherr-Nouvelle-Calédonie SAS
Nouméa

PR China

Liebherr (China) Co., Ltd.
Shanghai

Liebherr Components (Dalian) Co., Ltd.
Dalian

Liebherr (HKG) Limited
Hong Kong SAR

Liebherr LAMC Aviation (Changsha) Co., Ltd.
Changsha (50 %)

Liebherr Machinery (Dalian) Co., Ltd.
Dalian

Liebherr Purchasing (Dalian) Co., Ltd.
Dalian

Liebherr Transportation Systems (China) Co., Ltd.
Pinghu

Xuzhou Liebherr Concrete Machinery Co., Ltd.
Xuzhou

Singapore

Liebherr-Singapore Pte Ltd
Singapore

South Korea

Liebherr Mobile Cranes Korea Ltd.
Seoul

Thailand

Liebherr (Thailand) Co., Ltd.
Rayong



06



Consolidated financial statements

Consolidated balance sheet.....	66
Consolidated income statement	67
Consolidated statement of comprehensive income.....	68
Consolidated statement of changes in equity	68
Consolidated cash flow statement	69
Notes to the consolidated financial statements	70
Report of the statutory auditor	86
Five-year summary.....	87

Consolidated balance sheet

Assets in € m	Notes	31/12/2023	%	31/12/2022	%
Intangible assets	3.1	23	0.1	29	0.2
Property, plant and equipment	3.2	3,999	24.4	3,808	24.7
Investments accounted for using the equity method	3.5	3	0.0	8	0.1
Non-current financial assets	3.6	166	1.0	227	1.5
Deferred tax assets	8	248	1.5	222	1.4
Non-current assets		4,439	27.0	4,294	27.9
Inventories	4.1	6,409	39.1	5,662	36.8
Receivables	4.2 / 4.3	2,832	17.3	2,500	16.2
Prepaid income taxes	8	84	0.5	84	0.5
Current financial assets	4.5	1,552	9.5	1,394	9.1
Cash and cash equivalents	4.6	1,089	6.6	1,465	9.5
Current assets		11,966	73.0	11,105	72.1
Total assets		16,405	100.0	15,399	100.0
Equity and liabilities in € m					
Share capital		62	0.4	62	0.4
Other reserves and retained earnings	2.3 / 5	8,821	53.8	8,596	55.8
Equity attributable to Liebherr shareholders		8,883	54.2	8,658	56.2
Non controlling interests		18	0.1	16	0.1
Equity		8,901	54.3	8,674	56.3
Non-current financial liabilities	6	1,496	9.1	1,235	8.0
Post-employment benefits	9	813	4.9	678	4.4
Deferred tax liabilities	8	73	0.4	63	0.4
Non-current provisions	10	33	0.2	34	0.2
Other non-current liabilities	7	35	0.2	64	0.4
Non-current liabilities		2,450	14.8	2,074	13.4
Current financial liabilities	6	1,230	7.5	1,101	7.2
Advance Payments		652	4.0	665	4.3
Income tax liabilities	8	176	1.1	130	0.8
Current provisions	10	818	5.0	682	4.5
Other current liabilities	7	2,178	13.3	2,073	13.5
Current liabilities		5,054	30.9	4,651	30.3
Total equity and liabilities		16,405	100.0	15,399	100.0

Consolidated income statement

in € m	Notes	31/12/2023	%	31/12/2022	%
Revenue	11	14,042	91.6	12,589	91.7
Increase or decrease of work in progress and finished goods		547	3.6	524	3.8
Other own work capitalised		420	2.7	328	2.4
Other operating income		328	2.1	289	2.1
Operating income		15,337	100.0	13,730	100.0
Cost of materials		-8,384	-54.7	-7,554	-55.0
Personnel expenses		-3,714	-24.2	-3,394	-24.7
Depreciation and amortization expenses	3	-623	-4.1	-528	-3.8
Other operating expenses		-1,997	-13.0	-1,800	-13.1
Operating expenses		-14,718	-96.0	-13,276	-96.6
Operating result		619	4.0	454	3.4
Finance income		873	5.7	1,353	9.9
Finance expenses		-824	-5.4	-1,562	-11.4
Share of net profit of associates and joint ventures accounted for using the equity method		0	0.0	1	0.0
Finance result		49	0.3	-208	-1.5
Result before tax		668	4.3	246	1.9
Income taxes	8	-301	-2.0	-244	-1.8
Result after tax		367	2.3	2	0.1
attributable to Liebherr		364	2.3	1	0.1
attributable to non-controlling interests		3	0.0	1	0.0

Consolidated statement of comprehensive income

in € m	31/12/2023	31/12/2022
Result after tax	367	2
Post-employment benefits	-106	345
Income tax effect	18	-46
Items that will not be reclassified to profit or loss	-88	299
Foreign exchange translation differences	-58	51
Changes of fair value in cash flow hedges	94	3
Deferred tax	-27	1
Items that may be reclassified to profit or loss	9	55
Other comprehensive income	-79	354
Comprehensive income	288	356
attributable to Liebherr	285	355
attributable to non controlling interests	3	1

Consolidated statement of changes in equity

in € m	Share capital	Financial as- sets at OCI	Foreign exchange translation differences	Other reserves and retained earnings	Equity Liebherr	Non- controlling interests	Group equity
31/12/2021	62	-8	16	8,282	8,352	19	8,371
Result after tax				1	1	1	2
Other comprehensive income		4	51	299	354	0	354
Comprehensive income		4	51	300	355	1	356
Dividends				-50	-50	0	-50
Changes in shares of non-controlling interests				1	1	-4	-3
31/12/2022	62	-4	67	8,533	8,658	16	8,674
Result after tax				364	364	3	367
Other comprehensive income		67	-58	-88	-79	0	-79
Comprehensive income		67	-58	276	285	3	288
Dividends				-51	-51	-1	-52
Changes under company law				-9	-9	0	-9
31/12/2023	62	63	9	8,749	8,883	18	8,901

Consolidated cash flow statement

in € m	31/12/2023	31/12/2022
Result after tax	367	2
Depreciation and amortization expenses	623	528
Fair Value changes in marketable securities (current assets)	-98	209
Gain / Loss on disposal of non-current assets	0	2
Change in provisions and post-employment benefits	163	40
Other non-cash items	60	-62
Change in stock	-829	-1,186
Change in receivables and other current assets	-237	-341
Change in other liabilities	133	547
Change in rental fleet	-192	-154
Net cash flow from operating activities	-10	-415
Payment for investments in intangible assets	-7	-10
Payment for investments in tangible assets	-572	-500
Payment for investments in financial assets	-32	0
Payment for investments in marketable securities in current assets	-177	-220
Proceeds from sales of intangible assets	1	0
Proceeds from sales of tangible assets	15	24
Proceeds from sales of financial assets	2	1
Proceeds from sales of marketable securities (current assets)	115	189
Other proceeds from investing activities	12	13
Net cash flow from investing activities	-643	-503
Dividends paid, other distributions and equity capital repaid	-52	-50
Proceeds from current or non-current financial liabilities	895	779
Repayment of current or non-current financial liabilities	-542	-500
Other payments on financial activities	-8	0
Net cash flow from financing activities	293	229
Net decrease / increase in cash and cash equivalents	-360	-689
Effects of exchange rate changes on cash and equivalents	-16	9
Cash and cash equivalents at beginning of period	1,465	2,145
Cash and cash equivalents at end of period	1,089	1,465
Income tax paid and reimbursed	-278	-238
Interest paid	-89	-41
Interest received	63	43

Notes to the consolidated financial statements

1 Corporate information and business activity

The Group of companies was founded in 1949 by Dr. Hans Liebherr. Currently, the family run company has more than 53,000 employees working in more than 150 companies around the world. The share capital of Liebherr-International AG, Bulle, Switzerland, amounting to €62 million (CHF100 million) is held exclusively by the Liebherr family.

For the construction sector and the mining industry, the Group develops, produces and distributes tower cranes, mobile cranes, crawler cranes, hydraulic excavators, material handling machines, duty cycle crawler cranes, wheel loaders, crawler dozers and loaders, pipelayers, telescopic handlers, mining trucks as well as concrete mixing plants, concrete pumps and truck mixers worldwide. In addition, Liebherr develops, produces and distributes ship cranes, floating cranes, offshore cranes, container and mobile harbour cranes for the cargo handling industry worldwide. The activities range across machine tools, automation systems and engineering projects in the machine and plant construction industry, and landing gears, flight control and actuation systems as well as air management systems in the aerospace industry. Furthermore, Liebherr manufactures equipment for rail vehicles in the transportation technology area. For household and commercial refrigeration and freezing, Liebherr produces a variety of products with high benefits for the end users. In the components products segment the Group specialises in the development, design and manufacture of products in the mechanical, hydraulic and electric drive and control categories. Moreover, Liebherr operates six hotels in Ireland, Austria and Germany.

2 Accounting policies

2.1 General principles

The Group's consolidated financial statements for the year ended December 31, 2023 comply with IFRS Accounting International Standards (IFRS) as issued by the International Accounting Standards Board (IASB), London.

They are in accordance with all IFRS Accounting Standards (IFRS) and interpretations by the International Financial Reporting Interpretations Committee (IFRIC) applicable for annual periods beginning on or after January 1, 2023.

The accounting and reporting principles applied to these consolidated financial statements comply with Swiss Corporation Law as well as with IFRS Accounting Standards. The prior year values are prepared in accordance with the same principles, insofar as newly applicable standards also apply to prior periods.

The annual financial statements are based on a historical cost basis with transactions being recognised and reported in the period when they occur. Any divergence from this principle is specifically mentioned. The reporting period of Liebherr-International AG and its subsidiaries ends on December 31. The presentation currency is Euro, as it is the predominant currency in the Group.

In order to increase comprehensibility and relevance, some detailed disclosures required by IFRS Accounting Standards are not published in these condensed consolidated financial statements. These disclosures are correctly disclosed in the audited consolidated financial statements according to IFRS Accounting Standards.

Uncertainties resulted from the ongoing Russia Ukraine war on the balance sheet date. The sanctions imposed and their countermeasures restrict economic activities with Russia and have a negative impact on the business of the Liebherr Group's Russian companies.

Turkey fulfils the definition of a hyperinflationary economy in the 2023 fiscal year. In this respect, IAS 29 must be applied. Accordingly, the relevant non-monetary assets and liabilities, equity and all items in the income statement are adjusted for the effects of inflation using the appropriate producer price index. The balance sheet items as well as expenses and income are then translated into the reporting currency, Euro, at the closing rate.

2.2 Published and newly applied standards, interpretations and amendments

The following new standards, interpretations and amendments were relevant for Liebherr in 2023.

IFRS 17

IFRS 17 'Insurance Contracts' replaces the previous IFRS 4. IFRS 17 applies to the recognition and measurement of insurance contracts on a product specific basis. The scope of the standard includes insurance contracts and active reinsurance contracts, passive reinsurance contracts and investment contracts with discretionary participation features that a company holds in its portfolio, provided the company also issues insurance contracts. The application of the standard has no material impact.

IAS 8

If there are accounting changes in the financial statements, IAS 8, among others, regulates their presentation. The type of change plays an important role here. For example, changes in accounting policies must be applied retrospectively. Changes in estimates, on the other hand, must be applied prospectively. The distinction between changes in accounting policies and changes in accounting estimates is not always clear. The IASB therefore published amendments to IAS 8 in February 2021 to provide guidance on the distinction between 'accounting policies' on the one hand and 'accounting estimates' on the other. This was done by clarifying the rules on accounting estimates. According to the now modified definition, these are 'monetary amounts disclosed in financial statements that are subject to measurement uncertainty' (IAS 8.5). Whenever there is uncertainty in the measurement of items in the financial statements, the accounting entity must make an estimate. This may be necessary, for example, in connection with the determination of fair values or the measurement of provisions. Changes in accounting estimates can result from a change in an input factor or a measurement method (IAS 8.34A). If new information or new developments make it necessary to change such an estimate, this is explicitly not an error correction within the meaning of IAS 8 (IAS 8.34). Conversely, changes in accounting policies are changes that are not based on accounting estimates or a correction of errors. There are no material effects from the application.

IAS 1

In addition to an amendment to the wording in IAS 1.117, the standard also includes new guidance on how material information can be identified in relation to accounting policies. IAS 1 now includes the following clarifying guidance (IAS 1.117A-117E):

- Information about accounting policies may be material because of its nature, even if the amounts involved are immaterial
- Information about accounting policies is material if knowledge of it is important for users of financial statements to understand other material information in the financial statements
- If immaterial information on accounting policies is also disclosed, this must not obscure the material information under any circumstances

There are no material effects resulting from the application.

IAS 12

Under certain conditions, IAS 12.15 contains an exception to the otherwise existing obligation to recognise deferred taxes due to temporary differences. This exemption applies to deferred tax liabilities arising from the initial recognition of goodwill and from differences that are not related to a business combination and also arise from an initial recognition that does not affect profit or loss or tax (initial recognition exemption) (IAS 12.15(b)(i) and (ii)). To clarify this, the IASB amended the regulation in May 2021 and limited the application of the exemption with a new IAS 12.15(b)(iii) so that it only applies if no taxable and deductible temporary differences in the same amount are recognised at the time of the transaction. The application of this amendment has no material impact.

In addition, amendments to IAS 12 were also adopted, which are based on the Pillar 2 model regulations published by the Organisation for Economic Co-operation and Development (OECD). As a result of the adopted amendments, temporary relief is introduced for the recognition of deferred taxes resulting from the implementation of the Pillar 2 model regulations. The amendments introduce a temporary exemption from recognising deferred taxes resulting from the implementation of the global tax regulations in the individual countries. In addition, specific quantitative and qualitative disclosure requirements are introduced regarding the impact of these adjustments.

2.3 Basis of consolidation

The consolidated financial statements are prepared based on the individual financial statements of Liebherr-International AG and its subsidiaries, which are audited by independent auditors and prepared using consistent accounting policies. The consolidated financial statements include the annual financial statements of Liebherr-International AG as a parent company and of all subsidiaries in which Liebherr-International AG directly or indirectly holds a majority of voting rights, or otherwise controls according to IFRS 10.

The following companies have been established during the fiscal year 2023:

- Liebherr-Aerospace Montauban SAS, Montauban, France
- Liebherr Africa Holding (Pty) Ltd, Springs, South Africa
- Liebherr Africa Investment (Pty) Ltd, Springs, South Africa
- Liebherr-Appliances Belgium NV, Ternat, Belgium
- Liebherr-Appliances Netherlands B.V., Uithoorn, The Netherlands
- Liebherr-Belgium B.V., Antwerpen, Belgium
- LHF Kasachstan GmbH, Almaty, Kazakhstan
- TerraVac GmbH, Karlstadt, Germany
- Zimmermann Optik GmbH, Roggentin, Germany

Acquired companies are fully consolidated from the time when the Group has control according to IFRS 10. They are accounted for using the purchase method under which

identifiable assets, liabilities and contingent liabilities are measured at fair value on the date of acquisition. Any remaining residual value is recorded as goodwill in the respective functional currency of the company acquired. Any goodwill is not systematically amortised, but is reviewed for impairment at least on an annual basis.

Sold companies are deconsolidated at the time the Group ceases to have control and any gain or loss is recognised in the income statement.

Investments for which the Group does not exercise control but a significant influence are classified as associates or joint ventures and accounted for using the equity method according to IAS 28 and IFRS 11. The Group's share of net assets is presented in the balance sheet under Investments accounted for using the equity method and the share of profit of joint ventures and associates is shown in the income statement under Share of net profit of associates and joint ventures accounted for using the equity method.

The consolidated financial statements include investments in joint ventures and associate companies. Material investments are as follows:

- OEMServices SA, Tremblay-en-France, France
- Aerospace Transmission Technologies GmbH, Friedrichshafen, Germany

2.4 Translation of foreign currency

Foreign currency transactions are converted at the spot rate as of the transaction date. Monetary assets and liabilities in foreign currency are translated at the balance sheet date exchange rate. All gains and losses are recognised in the income statement. Assets and liabilities in financial statements of subsidiaries are converted to Euros using the bal-

ance sheet date exchange rate. For the translation of the income statement and the cash flow statement, the average exchange rate of the annual period is used. Exchange rate differences arising from the conversion of the income statement of affiliated companies are recognised separately in the other comprehensive income until disposal.

For the most significant currencies, the following exchange rates have been applied:

			2023		2022	
			Year end rate in €	Average rate in €	Year end rate in €	Average rate in €
Switzerland	CHF	1	1.0799	1.0294	1.0155	0.9957
USA	USD	1	0.9050	0.9247	0.9376	0.9511
United Kingdom	UK	1	1.1507	1.1497	1.1275	1.1733
Australia	AUD	1	0.6149	0.6145	0.6372	0.6596
Russia	RUB	1	0.0101	0.0109	0.0128	0.0141

2.5 Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. Purchases and sales of financial instruments are recognised using the trading date.

Financial assets and liabilities are recognised when the Liebherr Group becomes a party to the contractual obligations of the instrument. Financial assets are derecognised when the contractual rights to receive cash flows are fully transferred to a third party or they have expired. In cases where the rights to receive cash flows are neither transferred nor retained, a derecognition is only relevant to the extent that control has been transferred. If the Group has retained control, the Group continues to recognise the instrument to the extent of its continuing involvement. A financial liability is not derecognised until the liability is extinguished, i.e. when the obligation specified in the contract is discharged or cancelled or expires.

The adoption of IFRS 9 resulted in a change with respect to the classification and measurement of financial instruments. The initial and subsequent measurement of the various financial instruments used by the Liebherr Group depends on the business model and the cash flow structure. If the contractual details of the financial instrument give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding, Liebherr will classify them as 'Amortised cost' otherwise as 'Fair value through profit or loss'. Thus, Liebherr recognises financial instruments that are recognised and measured differently depending on their allocation to the categories specified in IFRS 9.

Financial instruments at fair value through profit or loss (fvtp)

This category includes financial assets and liabilities classified upon initial recognition at fair value through profit or loss and financial assets, inclusive of derivatives, i.e. derivatives held for trading and not held as a hedging instrument according to IFRS 9. All financial instruments in this category are measured at fair value with gains or losses arising from changes in fair value recognised in the income statement in the relevant period (finance income or finance cost). In general, the fair value of the financial instrument base on market prices (Level 1 Inputs and Level 2 Inputs of the fair value hierarchy). Valuation techniques (Level 3 Inputs) using non-observable input parameters are not applied. There were no financial instruments whose fair values could not be determined with sufficient reliability.

Amortised cost

This category represents loans granted by Liebherr Group and accounts receivable trade. Financial assets within this category are recognised at fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset upon initial recognition and subsequently measured at amortised cost. At each balance sheet date or under certain circumstances (e.g. significant financial difficulties of the debtor), the carrying amount of the financial instruments in this category are assessed for any impairment. Any impairment losses, which are determined by comparing the carrying value of the instrument to the fair value, are recognised in the income statement. If there is objective substantial evidence in subsequent periods that the impairment of an asset is no longer applicable, the previously recorded impairment loss is to be reversed. However, the reversal of the impairment loss may not create a carrying value that exceeds what the carrying value would have been if normal amortisation charges had been considered (not considering the impairment).

Other financial liabilities

Other financial liabilities comprise all financial liabilities with the exception of derivatives. Financial liabilities are recognised initially at fair value including transaction costs. They are subsequently measured at amortised cost using the effective interest method. In addition to actual interest payments, finance costs include annual compound interest and pro rata transaction costs.

Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss. This loss incurs when a specified debtor fails to make payments in accordance with the original or modified terms of a debt instrument. In some cases, the creditworthiness of customers is guaranteed by the Liebherr Group to the financing party, i.e. a financial guarantee contract is issued.

3 Non-current assets

3.1 Intangible assets

Intangible assets acquired separately are measured initially at acquisition costs. Internally generated intangible assets from which the Group expects to receive a future benefit and which can be measured reliably are capitalised at their corresponding production costs. The production costs include all costs directly attributable to the production process and a proportionate share of production-related overheads. Borrowing costs are not capitalised, as by definition intangible assets are not qualifying assets.

Development costs for new products are not capitalised, as the future economic benefit can only be demonstrated after a regulatory approval and a successful launch of the products in the market.

All intangible assets are amortised over the lower of their expected economic useful life or the contractual length using the straight-line method. Intangible assets with indefinite useful lives are not amortised but are tested for impairment annually.

The estimated useful lives of the major classes of intangible assets are as follows:

Concessions	3 years
Industrial property rights and similar rights	3 years
Licences	3 years
Software	3 – 5 years

3.2 Property, plant, and equipment

Property, plant, and equipment are measured at costs less cumulative depreciation and cumulative impairment. As a depreciation method the straight-line method is used with a depreciation period corresponding to the useful life. Land is not depreciated on a systematic basis. Maintenance costs

are capitalised when they extend the useful life or the production capacity of the asset. Other maintenance costs and repairs are recognised in the income statement as incurred.

The estimated useful lives of tangible assets are as follows:

Buildings	20 – 40 years
Machinery and equipment	5 – 21 years
Furniture	13 years
IT	3 – 5 years
Vehicles	5 – 11 years

Any gain or loss arising from the disposal of an asset is included in other operating income or expenses. The disposal of rental machines is recognised as revenue. The reversal of the related remaining book value from the disposal is treated as cost of materials. Tangible assets are derecognised upon disposal or when no future economic benefit is expected from their use.

Borrowing costs directly attributable to the purchase, construction or manufacturing of a qualified asset are capitalised during the period until the asset is brought into service and afterwards depreciated over the useful life of the asset. Other borrowing costs are treated as expenses.

Development of tangible assets as at 31/12/2023:

in € m	Land and buildings	Technical equip. and machinery	Other equip., factory and office equip.	Adv. paym., assets under construction	Total
Acquisition and production cost as at 1/1	3,853	2,970	1,856	318	8,997
Additions	95	463	164	301	1,023
Disposals	-17	-373	-80	-7	-477
Transfers	141	39	44	-226	-2
Foreign exchange differences	-34	3	-8	-3	-42
Acquisition and production cost as at 31/12	4,038	3,102	1,976	383	9,499
Accum. depreciation and impairment as at 1/1	1,845	1,937	1,407	0	5,189
Depreciation of the year	151	220	154	0	525
Accum. depreciation on disposals	-14	-159	-75	0	-248
Impairment	25	12	5	13	55
Transfers	0	-1	0	1	0
Foreign exchange differences	-17	3	-5	-2	-21
Accumulated depreciation as at 31/12	1,990	2,012	1,486	12	5,500
Net book value 31/12	2,048	1,090	490	371	3,999

Development of tangible assets as at 31/12/2022:

in € m	Land and buildings	Technical equip. and machinery	Other equip., factory and office equip.	Adv. paym., assets under construction	Total
Acquisition and production cost as at 1/1	3,714	2,788	1,779	189	8,470
Additions	95	375	142	241	853
Disposals	-33	-286	-84	-3	-406
Transfers	42	60	1	-108	-5
Foreign exchange differences	35	33	18	-1	85
Acquisition and production cost as at 31/12	3,853	2,970	1,856	318	8,997
Accum. depreciation and impairment as at 1/1	1,694	1,801	1,346	0	4,841
Depreciation of the year	151	207	147	0	505
Accum. depreciation on disposals	-19	-112	-79	0	-210
Impairment	5	2	0	1	8
Transfers	0	19	-19	0	0
Foreign exchange differences	14	20	12	-1	45
Accumulated depreciation as at 31/12	1,845	1,937	1,407	0	5,189
Net book value 31/12	2,008	1,033	449	318	3,808

Other equipment, factory and office equipment include mainly computer equipment, furniture, vehicles, transportation equipment, tools and fixtures.

The carrying amount of land and buildings contains the capitalised borrowing costs amounting to €9 million (2022: €4 million).

The tangible asset net book value of €3,999 million (2022: €3,808 million) corresponds to 42.1 % (2022: 42.3 %) of the historical cost. The recognised impairment loss relates to the rental equipment.

3.3 Leases

Liebherr acts mainly as a lessor and only in cases a purchase is legally or economically not efficient, Liebherr Group is a (long-term) lessee. The adoption of IFRS 16 implies that Liebherr has to recognise both a right-of-use asset and a lease liability. The majority of cases in this context concern land and buildings, but also machinery. The lease liability is measured at the beginning of the lease term at the present value of the unpaid payments and discounting is based on the incremental borrowing costs.

The practical expedients given in IFRS 16 with respect to low value asset leases and short-term leases, implying that a recognition of a right-of-use asset and a lease liability is avoided, are interpreted and applied correspondingly at Liebherr. A short-term lease is defined as a lease that, at the commencement date, has a lease term of 12 months or less, does not include an option to purchase the underlying asset and refers mainly to warehouses at short notice and flats. Low value asset leases refer to leases for which the underlying asset is of low value, i.e. a low present value of the lease payments, and subsumes assets such as printers or other office equipment. Intangible assets are not within the scope of IFRS 16. In determining the lease liability both variable lease payments that depend on an index or a rate and amounts expected to be payable by the lessee under residual value guarantees are included.

The initial measurement of the right-of-use asset is based on the value of the initial measurement of the lease liability. Scheduled depreciation is carried out over the economic useful life if the asset is transferred to the lessee at the end of the term, or the lessee will exercise an existing purchase option with sufficient certainty. If the lease transfers ownership of the underlying asset to the lessee by the end of the lease term or if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, Liebherr depreciates the right-of-use asset from the commencement date to the end of the useful life of the underlying asset. Otherwise, depreciation is based the right-of-use asset from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The right-of-use asset is regularly tested for impairment.

Liebherr Group is a lessor of self made construction machines. IFRS 16, Leases, contains also provisions according to which a decision has to be made whether substantially all the risks and rewards incidental to ownership of an asset is transferred to the lessee. Depending on the extent of the transfer of risk and rewards, the lease is classified as finance lease or as operating lease. Self constructed assets capitalised under tangible assets but leased out under an operating lease are recognised at production costs. All other leased out equipment is recognised at acquisition costs. All rental equipment is depreciated using the straight-line method according to the asset's useful life reflecting the lower of the market value or the calculated residual value of the asset. Lease income from operating leases is recognised in the income statement on a straight-line basis. With respect to financial leases, a receivable is recognised at an amount equal to the net investment in the lease. Lease payments are divided into interest and principal payments.

For sale and leaseback transactions, established at fair value, the corresponding profit or loss is recognised.

Generally, a multistage lease contains a head lease and a sublease. In multistage leases, Liebherr Group is both lessor and lessee. Accounting for the head lease implies a recognition of a right-of-use asset and a corresponding lease liability. In subleases, Liebherr Group decides on the basis of the corresponding criteria for lessors in IFRS 16 and on the basis of the right-of-use asset of the head lease whether the sublease should be classified as a finance lease or as an operate lease.

3.4 Impairment of non-current assets

Impairment losses on intangible and tangible assets will be recognised at each reporting date if there are indications that, following an event or due to changing circumstances, the book value is overvalued. If the carrying amount of an asset exceeds the recoverable amount (value in use or fair value less costs to sell) the asset will be written down to this lower amount. If necessary, intangible and tangible assets are combined to cash generating units.

3.5 Joint ventures and associated companies

Investments in joint ventures and associated companies are accounted for using the equity method of accounting.

3.6 Non-current financial assets

Non-current financial assets comprise non-current leasing receivables, loans and non-current marketable securities. Loans are classified as 'Amortised Cost'. Marketable securities are measured at fair value through profit or loss. Management of these financial assets is in accordance with a documented investment strategy and their performance is assessed based on the change in fair value.

4 Current assets

4.1 Inventories

Inventories are recognised at acquisition or production costs. Production costs includes costs directly related to the units of production and a systematic allocation of fixed and variable production overheads. The allocation of fixed production overheads is mostly based on the normal capacity of the production facilities; otherwise, it is based on the actual level of production. Selling costs, administrative overheads and borrowing costs are not capitalised. Raw materials and

merchandise are generally measured at acquisition costs. For raw materials, the acquisition cost reflects the lower of the last purchase price and the weighted average

price. Sufficient allowances are recorded for risks with regard to obsolescence and slow moving stock as well as for losses of pending transactions by depreciation or writing down to the net realisable value.

in € m	2023	2022
Raw materials and supplies	2,688	2,557
Work in progress	1,268	1,215
Finished goods and merchandise	2,424	1,871
Payments made in advance for inventories	29	19
Total	6,409	5,662

4.2 Construction and service contracts

For specific construction and service contracts, revenue is, more often than not, recognised over time. The dominating input based approach to determine the stage of completion at Liebherr Group is the cost-to-cost method. The cost-to-cost method determines the stage of completion according to the ratio of the contract costs incurred up to the balance sheet date to the estimated total contract costs with the corresponding sales per period to be recorded. However, output methods can also be based on physical partial services or contractually defined milestones. Both the cost-to-cost method and the output based method are established and applied at Liebherr resulting in an appropriate disclosure of the control transfer of services and products over time.

4.3 Accounts receivable

Receivables are initially recognised at the transaction price. Accounts receivable are classified as 'Amortised Cost'.

The IFRS 9 impairment approach for financial instruments is based on a three step procedure. But regarding the impairment of accounts receivable without an underlying financing component, representing the vast majority of the cases at Liebherr, this three step procedure may be avoided and instead, a simplified approach may be used in order to calculate the lifetime expected loss. Furthermore, dependent on the different residual terms a provision matrix as a practical expedient for determining the expected loss on accounts receivables in the sense of stage allowances is calculated. The mentioned provision matrix specifies fixed provision rates depending on the number of days that a trade receivable is past due. It is assumed that these provision rates approximate the default probability of trade receivables in the sense of the lifetime expected loss approach. A single allowance for doubtful accounts is recognised when there is objective evidence that such receivables are not recoverable (e.g. due to bankruptcy, payment default or other financial difficulties of the debtor).

The amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows. The allowance is based on internal group guidelines, according to which individual allowances must be deducted first. The payment terms and outstanding receivables are regularly monitored locally by all subsidiaries. Furthermore, safeguards in the form of prepayments and down payments are established.

4.4 Derivative financial instruments

Within the Liebherr Group, this position predominantly includes forward currency contracts, currency options, currency swaps, interest rate swaps and interest rate currency swaps to hedge its foreign exchange and interest rate risks. All derivatives, if they do not qualify for hedge accounting in accordance with IFRS 9, are classified as financial instruments at fair value through profit or loss.

To hedge the interest and foreign currency risks resulting from its operational activities, financial transactions and investments, the Liebherr Group makes use of derivative financial instruments. The goal is to reduce volatility in the income statement. A hedging relationship must fulfil various criteria relating to the documentation, the probability of occurrence, the effectiveness of the hedging instrument and the reliability of the measurement in order to qualify for hedge accounting in accordance with IFRS 9.

Under certain circumstances, a derivative financial instrument designated as a hedging instrument can be used to hedge the exposure to variability in cash flows that is attributable to a particular risk associated with a recognised asset or liability or a highly probable future transaction or the foreign currency risk in an unrecognised firm commitment. Exclusively in the aerospace division, Liebherr Group uses hedging instruments in cash flow hedges. Thereby the exposure to variability of future cash flows in foreign currencies which could have an effect on profit and loss is hedged. The effective portion of the gain or loss of the hedging instrument is recognised in other comprehensive income when the criteria for hedge accounting are fulfilled. These other comprehensive income amounts reflecting the cumulated value changes of the hedging instruments are, simultaneously, transferred to the income statement when the hedged transaction affects profit or loss or upon initial recognition of an asset or a liability. If the forecasted transaction is no longer expected to occur, the hedge is no longer effective and the amounts previously recognised in other comprehensive income are transferred to the income statement. The ineffective portion of the gain or loss of the hedging instrument is recognised directly in the finance result.

4.5 Current financial assets

The financial assets in these categories are classified, based on an internal risk management and investment strategy, as financial assets at fair value through profit or loss. The management of these assets is based on a written investment strategy and performance is measured on fair value.

in € m	2023	2022
Shares	428	398
Mutual funds	115	83
Fixed income securities	955	857
Other securities	3	4
Total securities and other financial assets at fair value	1,501	1,342
Fixed deposits with a residual term more than three months	51	52
Total	1,552	1,394

4.6 Cash and cash equivalents

In addition to cash on hand and cash in banks, short term deposits with an original maturity of three months or less are considered as cash and cash equivalents.

Under this position, the effective portion of the gain or loss of the hedging instrument in a cash flow hedge is recognised in accordance to IFRS 9 in other comprehensive income (OCI) without being recorded in the income statement.

5 Equity

The share capital of Liebherr-International AG is divided into registered shares. The other reserves and retained earnings contain the legal reserve of Liebherr-International AG as well as the retained earnings of the other subsidiaries. Additionally, the balance includes the free reserves of Liebherr-International AG as well as reserves and earnings from previous years of the consolidated companies.

In equity, exchange differences arising from the translation of assets and liabilities from the individual closings of foreign subsidiaries into the presentation currency are included.

6 Financial liabilities

The following table gives an overview of the financial liabilities:

in € m	Current	Non-current	Total 2023	Current	Non-current	Total 2022
Bank liabilities	1,203	1,321	2,524	1,079	1,095	2,174
Liabilities from leases	26	175	201	21	140	161
Bank liabilities from discounted bills	1	0	1	1	0	1
Total	1,230	1,496	2,726	1,101	1,235	2,336

7 Other liabilities

The following table gives an overview of the other liabilities:

in € m	Current	Non-current	Total 2023	Current	Non-current	Total 2022
Liabilities from repurchase obligations	10	18	28	12	27	39
Accounts payable trade	1,020	0	1,020	1,032	0	1,032
Liabilities from personnel expenses and social security	424	0	424	396	0	396
Tax liabilities and customs	227	0	227	177	0	177
Derivative financial instruments	34	0	34	119	0	119
Contract Liabilities	289	0	289	186	0	186
Deferred income	16	0	16	19	0	19
Further liabilities	158	17	175	132	37	169
Total	2,178	35	2,213	2,073	64	2,137

8 Taxes

Taxes include both current and deferred taxes. Current income taxes (income or corporation tax, business tax and corresponding foreign taxes) are the amounts resulting from taxable income or loss to be paid to or recovered from the relevant tax authority.

Current income taxes for the actual period and prior periods are recognised as a liability to the extent that they have not yet been paid. If the amount already paid in respect of current and prior periods exceeds the amount due for those periods, the excess is recognised as an asset. The benefit relating to a tax loss that can be carried back to recover current tax of a previous period is recognised as an asset.

Current tax liabilities (tax assets) for the actual and prior periods are measured at the amount expected to be paid to (recovered from) the taxation authorities, using the tax rates (and tax laws) that have been enacted at the reporting date or that will be enacted in the near future. Current income taxes are recognised in the income statement, except current income taxes relating to items previously recognised in other comprehensive income.

Deferred tax assets and liabilities are recognised in accordance with IAS 12 for temporary differences between the carrying amount of an asset or liability in the balance sheet and its tax base. The deferred tax assets also include future tax reductions from the expected use of losses brought forward. Deferred tax assets are only recognised if there is sufficient probability that future taxable profit will allow the deferred tax asset to be recovered. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled. The announcements of new tax rates (and new tax laws) by the government have been considered for the measurement of deferred tax assets and liabilities. The formal enactment is not relevant unless the temporary differences balance themselves under the old tax law.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be

available to allow all or part of the deferred income tax asset to be recovered. Conversely, a previously unrecognised deferred tax asset is recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred taxes are charged or credited directly to other comprehensive income if the taxes relate to items that are credited or charged directly to other comprehensive income in the same or a different period.

Deferred income tax assets and deferred income tax liabilities are offset if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred income taxes relate to the same taxable entity and the same tax authority.

9 Employee benefits

Employee benefits consist of pension obligations, commitments related to jubilee payments and retirement agreements. There are various employee benefit plans in the Group, which are individually aligned with local conditions in their respective countries. They are financed either by means of contributions to legally independent pension / insurance funds, or by recognition as employee benefit liabilities in the balance sheet of the respective subsidiaries.

The net periodic costs with regards to defined contribution plans to be recognised in the income statement are the agreed contributions of the employer. In case of defined benefit plans, the period costs are determined by means of actuarial valuations by external experts using the projected unit credit method which are prepared on a regular basis.

The calculation of net periodic costs and employee benefit liabilities implies that statistical methods and variables are employed. These variables include, for example, estimations and assumptions concerning the discount rate. Furthermore, actuaries use a wide range of statistical information for actuarial calculation of employee benefit liabilities which can deviate significantly from actual results due to changes in market conditions, the economic situation as well as fluctuating rates of withdrawal and shorter or longer life expectancy of benefit plan participants.

10 Provisions

Provisions are only recognised in the balance sheet if the Liebherr Group has an obligation to a third party that resulted from a past event, and if a reliable estimate of the obligation can be made. Possible losses from future events are

not recognised in the balance sheet. Restructuring provisions will only be recognised if the respective costs can be determined reliably by reference to a plan and if there is a corresponding obligation resulting from a contract or notification.

Provisions 2023 in € m	Warranty obligation	Compensation and product liability	Expected loss from pending transactions	Other provisions	Total
Current provisions	509	18	110	181	818
Non-current provisions	0	0	14	19	33
Total provisions	509	18	124	200	851
Reconciliation					
31/12/2022	445	14	156	101	716
Increase	214	10	56	146	426
Usage	-122	-4	-71	-8	-205
Transfers	0	0	0	0	0
Reversal	-30	-3	-19	-36	-88
Discounting	0	0	0	0	0
Foreign exchange differences	2	1	2	-3	2
31/12/2023	509	18	124	200	851
Provisions 2022 in € m					
	Warranty obligation	Compensation and product liability	Expected loss from pending transactions	Other provisions	Total
Current provisions	445	14	140	83	682
Non-current provisions	0	0	16	18	34
Total provisions	445	14	156	101	716
Reconciliation					
31/12/2021	430	9	109	150	698
Increase	159	7	86	31	283
Usage	-111	-1	-55	-14	-181
Transfers	0	1	25	-25	1
Reversal	-36	-3	-9	-42	-90
Discounting	0	0	0	1	1
Foreign exchange differences	3	1	0	0	4
31/12/2022	445	14	156	101	716

11 Revenue recognition and profit realisation

Liebherr adopts IFRS 15. The core principle of IFRS 15 is that an entity will recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This core principle is delivered in a five-step model framework helping to calculate the amount and to determine whether the revenue is to be recognised at a point in time or over a period of time. The five-step model requires the identification of the contract with a customer, the identification of the performance obligations, the determination of the transaction price, the allocation of the transaction price to the corresponding performance obligations and the recognition of revenue when the entity satisfies a performance obligation. If partial invoices are issued during the contractual term, revenue can be recognised during the contract period on the basis of the right-to-invoice approach, i.e. revenue is recognised in the amount of the invoiced amount.

Revenue recognition over time should reflect the transfer of control over the service to the customer according to the progress in fulfilling the underlying performance obligation. The dominating input-based approach to determine the stage of completion at Liebherr Group is the cost-to-cost method. The cost-to-cost method determines the stage of completion according to the ratio of the contract costs incurred up to the balance sheet date to the estimated total contract costs with the corresponding sales per period to be recorded.

If Liebherr has determined that the performance obligation is not fulfilled over time, revenue recognition in reference to a specific point in time is assumed. Revenue recognition in reference to a specific point in time is, more often than not, the rule.

Revenue from operating leases is recognised on a straight line basis over the lease term, unless another systematic basis is more representative of the time pattern in which the user benefit derived from the leased asset is diminished. As such, income from lease payments is recognised proportionally. The difference between payments received and income recognised is deferred.

Sales proceeds from rental equipment disclosed under non-current assets are not recognised until actual transfer of risks and rewards related to the assets occurs.

12 Events after balance sheet date

There were no significant events at the Liebherr Group after the end of the business year.

Report of the statutory auditor

*To the administrative board of
Liebherr-International AG, Bulle
Berne, March 28, 2024*

Opinion

The summary consolidated financial statements of Liebherr-International AG, which comprise the consolidated balance sheet as at December 31, 2023, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended, and selected notes, are derived from the audited consolidated financial statements of Liebherr-International AG for the year ended December 31, 2023.

In our opinion, the summary consolidated financial statements are consistent, in all material respects, with the audited consolidated financial statements in accordance with the basis described in note 2.1.

Summary consolidated financial statements

The summary consolidated financial statements do not contain all the disclosures required by IFRS Accounting Standards. Reading the summary consolidated financial statements and the auditor's report thereon, therefore, is not a substitute for reading the audited consolidated financial statements and our auditor's report thereon.

The audited consolidated financial statements and our report thereon

We expressed an unmodified audit opinion on the consolidated financial statements in our statutory auditor's report to the annual general meeting dated March 28, 2024.

Board of Directors' responsibility for the summary consolidated financial statements

The administrative board is responsible for the preparation of a summary of the complete audited consolidated financial statements in accordance with the basis described in note 2.1.

Auditor's responsibility

Our responsibility is to express an opinion on whether the summary consolidated financial statements are consistent, in all material respects, with the audited consolidated financial statements based on our procedures, which were conducted in accordance with International Standard on Auditing (ISA) 810, 'Engagements to Report on Summary Financial Statements'.

Ernst & Young Ltd

Christoph Michel
Licensed audit expert
(Auditor in charge)

Stefan Pieren
Licensed audit expert

Five-year summary

in € m	2019	2020	2021	2022	2023
Revenue	11,750	10,341	11,639	12,589	14,042
Investments	756	605	742	863	1,030
Depreciation	541	543	507	528	623
Non-current assets	4,372	4,011	4,129	4,294	4,439
Current assets	9,916	9,722	10,419	11,105	11,966
Equity	7,884	7,784	8,371	8,674	8,901
Liabilities	6,404	5,949	6,177	6,725	7,504
Result after tax	429	7	545	2	367
Personnel expenses	2,980	2,847	3,072	3,394	3,714
	2019	2020	2021	2022	2023
Employees	48,049	47,925	49,611	51,321	53,659

