ANNUAL REPORT 2022

ZEPPELIN®
WE CREATE SOLUTIONS

zeppelin.com

ZEPPELIN AT A GLANCE

	2022	2021	2020	2019	2018
					IFRS
SALES					
Construction Equipment Central Europe SBU	1,516	1,494	1,373	1,470	1,315
Construction Equipment Nordics SBU	292	292	258	n/a	n/a
Construction Equipment Eurasia SBU	525	642	494	500	482
Rental SBU	666	576	528	509	473
Power Systems SBU	442	437	407	392	360
Plant Engineering SBU	493	340	306	332	348
Total for the Group [1]	3,838	3,696	3,272	3,118	2,897
EMPLOYEES					
Average for the year, (FTEs) including trainees					
Construction Equipment Central Europe SBU	3,084	3,000	2,949	2,914	2,775
Construction Equipment Nordics SBU	709	667	603	588	n/a
Construction Equipment Eurasia SBU	1,677	1,981	1,906	1,872	1,792
Rental SBU	1,982	1,811	1,769	1,651	1,487
Power Systems SBU	1,041	1,057	1,044	1,022	849
Plant Engineering SBU	1,699	1,614	1,622	1,529	1,468
Total for the Group [1]	10,557	10,458	10,170	9,748	8,502
FIXED ASSETS [2]					
Additions	465.4	382.5	368.6	466.9	356.4
Changes in consolidated companies	20.3	6.9	0.5	74.7	4.8
Amortization	267.0	250.5	241.6	213.7	192.9
as percentage of additions	57	65	66	46	54
of which rental assets					
• Additions	380.1	289.0	265.7	333.3	263.8
• Changes in consolidated companies	0.5	5.6	0.0	1.7	0.3
• Amortization	175.5	162.1	156.5	144.9	132.5
NET PROFIT BEFORE TAX	134.6	159.5	124.6	133.7	130.8
NET GROUP INCOME	104.4	118.0	91.5	92.4	90.0
CASH FLOW [3]	-42,8	240.1	259.6	75.4	81.5
EQUITY	1,128.5	1,009.3	890.0	845.4	771.4
• of which subscribed capital	100.0	100.0	100.0	100.0	100.0
• of which capital reserves	60.0	60.0	60.0	60.0	60.0
• of which retained earnings	937.8	858.4	759.5	688.3	614.8
• of which accumulated other comprehensive income	15.7	-23,0	-41,3	-12,8	-10,8
• of which shares held by non-controlling interests	15.0	13.9	11.7	9.9	7.3

SBU: Strategic business unit

[1] Includes Zeppelin GmbH, klickrent GmbH, Zeppelin Lab GmbH and Klickparts GmbH
[2] Financial assets, companies valued according to the equity method, intangible assets, and property, plant and equipment
[3] Cash flow from operating activities (IFRS)

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THE GROUP MANAGEMENT BOARD 1)

PETER GERSTMANN
Chairman of the Management Board of Zeppelin GmbH

- Group Development, IT and Innovation, Digital Business, Auditing and Group Communications
- Responsible for the Plant Engineering and Construction Equipment Eurasia strategic business units
- Degree in Business Administration
- Member of the Management Board of Zeppelin GmbH since 2007 and Chair since 2010

MICHAEL HEIDEMANN
Vice Chairman of the Management Board of Zeppelin GmbH

- Sales, Marketing, and Service
- Responsible for the Construction Equipment Central Europe, Construction Equipment Nordics and Rental strategic business units
- Industrial manager
- Member of the Management Board of Zeppelin GmbH since 2000 and Vice Chairman of the Management Board of Zeppelin GmbH since 2010

CHRISTIAN DUMMLER
Managing Director of Zeppelin GmbH / CFO

- Finance, Controlling, Real Estate Management, Law, Corporate Social Responsibility
- Responsible for the Power Systems strategic business unit
- Certified banking specialist
- Member of the Management Board of Zeppelin GmbH since 2011

ALEXANDRA MEBUS
Managing Director of Zeppelin GmbH / Labor Director

- HR and HR Development, Compliance and Data Protection, Diversity
- Master of Business Administration, degree in Social Education
- Member of the Management Board of Zeppelin GmbH since 2018

[1] Since January 1, 2023, a new business allocation structure applies; this can be viewed on the company website.

MANAGEMENT BOARD REPORT

Dear customers, partners, employees, and readers [1)],

With sales of EUR 3.84 billion in 2022, the Zeppelin Group increased its year-on-year result. At EUR 134.6 million, earnings before taxes were less than the previous year due to exceptional strains in Russia and Ukraine, and the termination of the operational business in Belarus. This is a remarkable result, which we achieved in spite of particular challenges such as Russia's war against Ukraine and its effects, the sometimes-challenging political framework conditions in certain markets, highly dynamic price behavior and ongoing supply bottlenecks on the part of our manufacturer partners and suppliers. Russia's war against Ukraine led to significant declines in business, causing extraordinary stresses and structural adjustments in the Construction Equipment Eurasia, Power Systems and Plant Engineering strategic business units (SBUs). Nevertheless, with an order backlog of over EUR 1.95 billion, we have a solid foundation for the 2023 financial year.

GLOBAL CRISIS AND RISK MANAGEMENT

Zeppelin strongly condemns Russia's war of aggression against Ukraine, which is in contravention of international law. Immediately after the outbreak of the war, we actively steered our business activities in the affected countries by means of a central crisis management team. In addition to extensive support activities to protect our employees and their families in Ukraine, we have restricted our business activities in Russia to only meet our existing obligations to employees, customers and partners, and have ensured compliance with all existing sanctions. Comprehensive crisis management and implementation of the required operational steps was also necessary in relation to the waning coronavirus pandemic, high energy prices, rising inflation and the acute shortage of raw materials.

CONSTRUCTION EQUIPMENT CENTRAL EUROPE

Despite current challenges, the construction equipment industry has had a successful year and facilitated stable development of earnings and sales in our business unit. Order entries remained at the previous year's level. At the same time, Zeppelin continued to expand its market position in Austria. However, market share in Germany, Czech Republic and Slovakia fell slightly due to our manufacturer partner Caterpillar's limited supply capacity. At the 2022 edition of bauma, the world's leading trade fair, we were able to present ourselves as a reliable partner for our customers and won them over with tailor-made solutions for the altered market conditions. Our impressive trade fair stand in Hall B6 had very high footfall; there was a great deal of interest in our products and services, and the frequency and intensity of discussions with our customers were very promising.

CONSTRUCTION EQUIPMENT NORDICS

Construction activity in Sweden and Denmark declined slightly in 2022. Residential construction decreased, though commercial construction increased. The strained supply situation, labor shortages and rising inflation rates also had a significant impact on the construction machinery industry; as such, sales in this strategic business unit were slightly below the previous year's figure.

However, this SBU saw strengthened profitability, with business in Greenland recording particularly positive development and Zeppelin Construction Equipment supplying major infrastructure projects here. Greenland's wealth of natural resources means that plenty of business opportunities can also be expected in the future. Zeppelin is currently building repair and service workshops as well as a new company headquarters in Landvetter near Gothenburg, to be able to better serve the mining potential in northern Sweden and future development in Greenland. The Construction Equipment Nordics SBU will forge ahead with its growth strategy, expanding its product portfolio and financing solutions and increasing its focus on the service business. At the same time, digital business segments will ensure our future success by making even more intensive use of machine and system data.

CONSTRUCTION EQUIPMENT EURASIA

Following several years of strong market growth, the positive business development in our distribution and service territories in Russia, Belarus and Ukraine was abruptly ended by the war. This caused economic power in Ukraine to shrink by more than a third. Mining and agriculture proved to be stability factors in times of crisis, with steady sales – though significantly lower than they were before the start of the war. Zeppelin was therefore able to largely maintain jobs and fully comply with its salary obligations to employees. Western sanctions against Russia and Belarus led to massive restrictions on business activities there. Zeppelin ceased business activities in Belarus and severely curtailed activities in Russia, while fulfilling its contractual obligations to customers, employees, and our partner Caterpillar in compliance with all existing sanctions.

"Special thanks go to all Zeppelin employees."

– Peter Gerstmann

However, we saw positive business development in Armenia and Uzbekistan. There are various reasons for this, including extensive government infrastructure measures, an attractive investment climate and the introduction of advanced technologies in mining.

ZEPPELIN RENTAL

The market for rental of construction machines and equipment continued to grow in 2022. In this environment, the Rental SBU was able to further expand its strong market position and boost sales and earnings. In addition to Austria and Sweden, the markets in Germany, Czech Republic, Slovakia

[1] To aid readability, the male and female pronouns are not used in every case. All personal pronouns should be understood as gender-neutral.

and Denmark also recorded an increase in market volume. The Rental SBU is continuing to comprehensively expand its integrated range of solutions for construction sites. Developing new rental markets in Sweden and Denmark has been at the heart of our growth strategy. Digitization and sustainability on construction sites were the key themes of our bauma 2022 trade fair appearance.

POWER SYSTEMS

Our core markets for drive systems technology and energy generation were severely impacted by the current sanctions against Russia and Belarus and the resulting energy crisis. Disrupted supply chains also led to supply bottlenecks for engines and spare parts. In the industrial segment, it was not possible to fully meet the high demand due to failed deliveries from our manufacturer partner and associated production delays. Service, on the other hand, recorded high order entries for overhauls and repairs of cruise ships, yachts and tugboats. There was a slump in new orders for major series-production projects in the locomotive engines product segment.

Together with our manufacturer partner Caterpillar, Power Systems relied on new drive systems solutions, such as engines that run on up to 25 percent hydrogen admixtures. In the long term, it will be possible for these engines to be used with 100 percent hydrogen. In addition, in future there will be engine models that are operated with a methanol admixture and pure methanol. This is why we gave visitors the opportunity to experience the construction industry drive systems of the future at bauma 2022. At the event we provided information not only about high-performance diesel engine technology in EU emissions stage V, but also about the prototype of a mobile hydrogen-based fuel cell generator set.

PLANT ENGINEERING

High demand, broad procedural expertise, an international presence and a strong market position in the future-focused markets of battery production and plastics recycling ensured that the SBU achieved a record year in order entry in almost all market segments and regions.

Despite the very good sales performance by the Plant Engineering SBU, a major order that could not be completed and delivered due to sanctions against Russia led to a significant negative impact on earnings. Nevertheless, we achieved one particularly successful order in the field of battery production for a US car manufacturer.

A major plant for the production of plastics and a large malting plant for primary products in beer production enable us to consolidate our market position. Zeppelin has developed customized and continuously operating deodorization systems for recycling plastics. In the long term, this means a higher proportion of plastic recyclates for the industrialized circular economy with consistently high product quality. Plant Engineering is also a research partner in the development of a new battery manufacturing process that includes process-critical mixers.

ZEPPELIN DIGIT

The Zeppelin Digit Strategic Management Center (SMC) supports the digitization of internal processes in close collaboration with the SBUs. Zeppelin Digit is working on the structural and content-related realignment of the Group-wide IT landscape to enable products, processes and services to be comprehensively and optimally offered for both customers and employees.

ZEPPELIN AS AN EMPLOYER

With the global introduction of the Workday HR software, we have enhanced transparency in our HR management processes while also standardizing and digitizing core processes. The previous functionalities relating to master data and recruitment have been expanded to include new modules in the areas of performance and talent management, as well as learning and remuneration. The introduction of the ATOSS software solution in Germany provides simple, transparent, location-independent time recording and digital holiday requests for all employees.

Zeppelin's "New Work" project is a response to new requirements in the ever-changing world of work. A new office concept, open-space landscapes, desk sharing, project rooms and retreat areas have already been implemented in the first work areas. The "new world of work" also required a change in the understanding of leadership. The modified leadership principles of enthusiasm, appreciation, effectiveness, innovation and trust form the basis for a modern and employee-oriented management culture at Zeppelin.

We have raised awareness of the topics of diversity, inclusion and equal opportunities with the "Altersdiversität und Generationsmanagement" (age diversity and generation management) action day.

CORPORATE SOCIAL RESPONSIBILITY

Despite many uncertainties, in 2022 Zeppelin continued implementing measures to achieve its sustainability targets. With the goal of becoming a company which is carbon-neutral in ongoing business operations by 2030, general energy-related renovation is under way at various branches. By 2030 all Zeppelin properties will be converted to carbon-neutral operation, and the

renovations required at our leased sites will be discussed. In addition, we are continuing to drive forward the installation of photovoltaic systems and are switching to green electricity where this makes sense and is possible. The expansion of the infrastructure for electric mobility on the site network in Germany and Austria has largely been completed. In addition, measures to further reduce waste as well as water consumption have been successfully implemented.

The introduction of a software solution for data collection and evaluation in respect of reporting non-financial key figures forms a solid foundation for sustainability reporting as well as the EU's regulatory requirements. The prerequisites for fulfilling the requirements of the Act on Corporate Due Diligence Obligations in Supply Chains, which will become binding for Zeppelin from January 1, 2023, have been put in place.

To avoid possible supply bottlenecks in the context of a gas shortage, Zeppelin launched the Group-wide energy-saving campaign "Be Sustainable".

FINANCIALS

Creditreform Rating AG has rated the Zeppelin Group with an "A-" rating and a "stable" outlook. The rating agency therefore again attested to our high creditworthiness and low default risk in a challenging environment. Crisis management relating to Russia's war of aggression against Ukraine and the Group's measures in the area of sustainability were also assessed as positive by the agency.

INVESTMENTS

Zeppelin invested in new branches in locations including Eschweiler, Bratislava and Gothenburg, as well as a service and training location in Weimar. A plot of land was also acquired in Kassel for further expansion. All construction work was carried out with in-depth consideration of sustainability aspects. In addition, we invested in the renewal and expansion of our service vehicle fleet and the digitization of business processes as well as in various collaboration tools and IT security. The rental fleet was significantly increased due to high demand and organic growth, especially in Sweden and Denmark. The total investment volume in 2022 was EUR 338.9 million.

OUTLOOK

The Russian war of aggression against Ukraine will continue to have a significant negative impact on the Zeppelin Group's economic development in 2023. In 2021, Zeppelin generated over 20 percent of its total sales in Russia, Belarus and Ukraine. We assume that business in Russia and Ukraine is essentially lost. Despite these and other current challenges – such as a lack of available professionals, disrupted supply chains and a further expected

rise in prices and interest rates – we are cautiously optimistic about the future.

We expect high demand for construction machinery despite an imminent slowdown in the construction industry. We are unlikely to be able to fully meet this demand due to continued disruptions in supply chains and resulting long delivery times, as well as production bottlenecks at our manufacturer partners and suppliers. However, the high population of machines and engines on our customer sites presents a broad base for our service business. At the same time, our range of services is being expanded with new digital solutions. The engine business will also continue to be impacted by insufficient availability, and we anticipate continued limited demand for gas engines due to the uncertain supply situation. Business with emergency standby power supply systems, on the other hand, is likely to remain highly dynamic. Rental business will continue to grow in the coming year with temporary, flexible solutions. The range of services, from small excavators to logistics for complex construction sites and the organization of large-scale events, opens up interesting development opportunities. Plant Engineering has good growth opportunities in the market segments of recycling, battery production and malting, and is well-positioned in the chemical, plastics production and processing and food industries.

On behalf of the Management Board of Zeppelin GmbH, I would like to thank our customers for their trust in our services; this is what has made it possible for us to achieve success in a difficult environment. Special thanks go to all Zeppelin employees for their passion and loyalty in these unusual times. Our thanks also go to the Employee Representatives for their support, and our shareholders and Supervisory Boards for their trust in us.

PETER GERSTMANN
Chairman of the Management Board of
Zeppelin GmbH

THE SUPERVISORY BOARD

SHAREHOLDER REPRESENTATIVES

ANDREAS BRAND
Chairman, Mayor of the City of Friedrichshafen

DR. REINHOLD FESTGE
Partner in HAVER & BOECKER OHG

DR. KRISTIN NEUMANN
Member of the Executive Board and CFO, Brenntag SE

DR. WERNER PÖHLMANN
Lawyer, Tax Adviser, Certified Public Accountant

UNIV.-PROF. DR.-ING. DR.-ING. E.H. DR. H.C. DIETER SPATH
President and CEO of TÜV Rheinland Berlin Brandenburg Pfalz e.V.

PROF. DR. YASMIN MEI-YEE WEIß
Professor at University of Technology Nuremberg

EMPLOYEE REPRESENTATIVES

HERIBERT HIERHOLZER
Vice Chairman, Production Foreman and Chairman of the General Employee Council of Zeppelin Systems GmbH

THOMAS MANN
Head of Time Management and HR Officer at Zeppelin Baumaschinen GmbH

RALPH MISSELWITZ
Senior Field Service Representative, Chairman of the General Employee Council of Zeppelin Baumaschinen GmbH, Chairman of the Group Employee Council of Zeppelin GmbH

FREDERIC STRIEGLER
2nd Authorized Representative of the Friedrichshafen/Upper Swabian Chapter of the IG Metall Trade Union

MARITA WEBER
Primary Authorized Representative of the Offenbach Chapter of the IG Metall Trade Union

CAROLIN WINKEL
Head of Corporate Development and CSR, Zeppelin Rental GmbH;
Senior Management Representative

SUPERVISORY BOARD REPORT

Despite he diverse and unprecedented challenges, particularly Russia's war against Ukraine, the Zeppelin Group closed on a successful 2022 financial year.

Given that Zeppelin has been successfully and extensively active in the markets of Russia, Ukraine and Belarus for decades, February 24, 2022 marked a turning point. Humanitarian aid for employees in Ukraine and their families has been and continues to be highly important. Securing assets, complying with international sanctions against Russia and Belarus, and local regulatory changes, as well as the necessary capacity and structural adjustments in these countries, are ongoing important tasks.

ANDREAS BRAND
Chairman of the Supervisory Board

Despite all the framework conditions – war against Ukraine, the energy crisis, inflation, noticeably higher refinancing costs and restricted availability of machines, engines, components and raw materials – we were able to maintain our ability to provide deliverables and services to our customers.

Digitization projects and measures connected to the sustainability strategy went ahead. Smaller-scale acquisitions to round off the product and service portfolio were carried out and concluded.

Following years of highly dynamic growth in markets relevant to Zeppelin, the 2022 financial year was dominated by markets declining – and in Russia, Ukraine and Belarus, even collapsing. Nevertheless, Zeppelin Group was able to achieve slight sales growth and record a solid result in the context of the war-related pressures.

In the 2022 financial year, the Supervisory Board performed the tasks incumbent upon it in accordance with the law, the Articles of Association and the Rules of Procedure with great and particular care, supervising the work of the Management Board and providing advisory and controlling support in the management of the company, crisis management, strategic further development and key individual topics. The Management Board promptly and directly involved the Supervisory Board on all issues and decisions of fundamental relevance.

The Chairman of the Management Board and the entire Management Board also updated the Chairman of the Supervisory Board and his representatives outside board meetings on current developments and material processes. All members of the Supervisory Board were punctually and extensively informed in writing on a monthly basis about the performance of the Zeppelin Group.

The most important objective was to counteract the war-related impacts on the Zeppelin Group and its employees as well as possible, together with the Management Board. The long-term and successful further development of the Group was at the heart of our work. The Supervisory Board and the Management Board worked together openly, responsibly and trustingly, as well as very constructively.

In the 2022 financial year the focus of reporting and consulting was on economic development and the effects of the war in Ukraine, strategic development and key Group-wide projects. In addition, acquisition opportunities and projects were discussed in the context of strategic development.

In three ordinary and five extraordinary meetings, and on the basis of submissions, reports and presentations on strategy, planning; acquisition opportunities and investment projects; financial performance, financial position and cash flows; the quarterly report on risk, compliance and data protection; the Group Audit Department report; and reporting on the integration of acquisitions, the Supervisory Board advised on the company's development and provided intensive and prompt support to the Management Board's war-related crisis management.

The corporate, investment and financial plans for 2023 were discussed in detail and adopted, along with forecasts for 2024 and 2025. In addition, it provided advice on the development and expansion of new business segments, employee recruitment, retention and development, the further development of the Group-wide financial, risk and compliance management system, and the sustainability strategy.

The Personnel and Audit Committee fulfilled the requirements stipulated by law and the Articles of Incorporation. Five meetings dealt with key issues relating to corporate development and strategy, fundamental issues of corporate policy, topics relating to accounting, auditing and internal control and reporting systems, as well as the audit of the annual financial statements. The Personnel and Audit Committee also regularly addressed the company's economic and financial situation.

Regulatory developments most relevant to Zeppelin were the subject of the consultations. One focal point was the preparation of the Supervisory Board meetings on acquisition projects, war-related crisis effects and associated decisions. Personnel topics such as appointing Managing Directors, succession planning, HR development and consulting on remuneration systems were also key areas of responsibility.

After proper consideration and consultation with the Management Board, a number of projects and measures were recommended to the Supervisory Board for consultation and resolution. These consisted mainly of acquisition projects and financial and investment plans for the 2023 financial year. Resolutions were also passed concerning the appointment and re-appointment of Managing Directors of Zeppelin GmbH and, respectively, affiliated companies, based on relevant recommendations by the HR committee.

The activities of the Supervisory Board and in particular its monitoring of the Management Board did not give rise to any complaints.

The financial statements of Zeppelin GmbH prepared pursuant to the provisions of the German Commercial Code (Handelsgesetzbuch, "HGB") and the Group Financial Statements prepared in accordance with the basic principles of the IFRS pursuant to Section 315e HGB for the year ending Saturday, December 31, 2022, and the relevant management reports, were audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC), who issued an unqualified Auditor's Statement.

The Supervisory Board engaged with the documents in detail and also reviewed them itself. The audit reports were provided to all members of the Supervisory Board in a timely manner for this purpose. In due time before the Supervisory Board's accounts review meeting, PwC and members of the Supervisory Board met twice to discuss the details, key points, and findings of the year-end audits. The Personnel and Audit Committee has engaged with this in detail together with the auditor.

During the accounts review meeting of the Supervisory Board on March 30, 2023, PwC explained the key results of the audit, which were discussed in detail in the presence of PwC. The Supervisory

Board did not raise any objections, approved the report, and at the same time approved the financial statements of Zeppelin GmbH and the Group Financial Statements.

The financial statements were thereby adopted. The Supervisory Board approved the Management Board's proposal concerning the appropriation of net profit and recommended that the shareholders also approve this.

The Supervisory Board passed a resolution at the meeting on October 24, 2022, to appoint Mr. Fred Cordes to the Management Board of Zeppelin GmbH with effect from January 1, 2023. Effective January 1, 2023, Mr. Cordes took over Michael Heidemann's Distribution, Service, and Marketing departments, as well as responsibility for the Construction Equipment Central Europe, Nordics, and Eurasia strategic business units. After more than 30 years of service at Zeppelin, Mr. Heidemann will retire on June 30, 2023 and will be supporting Mr. Cordes in his new area of responsibility until this point in time. The Supervisory Board wishes Mr. Cordes every success in his new responsibilities and would like to thank Mr. Heidemann for his many years of excellent and successful collaboration.

The dedication and exceptional commitment of all Zeppelin employees worldwide have made the Zeppelin Group's continued success possible in 2022, despite it being a very challenging year. We would like to offer our thanks, respect and appreciation for all their efforts.

Friedrichshafen, March 31, 2023
On behalf of the Supervisory Board

ANDREAS BRAND
Chairman

ZEPPELIN WORLDWIDE

10,557 employees at more than 340 sites in 26 countries and regions support our customers' competitiveness with an extensive portfolio of products and services.

CONSTRUCTION EQUIPMENT
Armenia
Denmark
Germany
Faroe Islands
Greenland
Austria
Poland[1)]
Russia (some areas)
Sweden
Slovakia
Tajikistan
Czech Republic
Turkmenistan
Ukraine
Uzbekistan

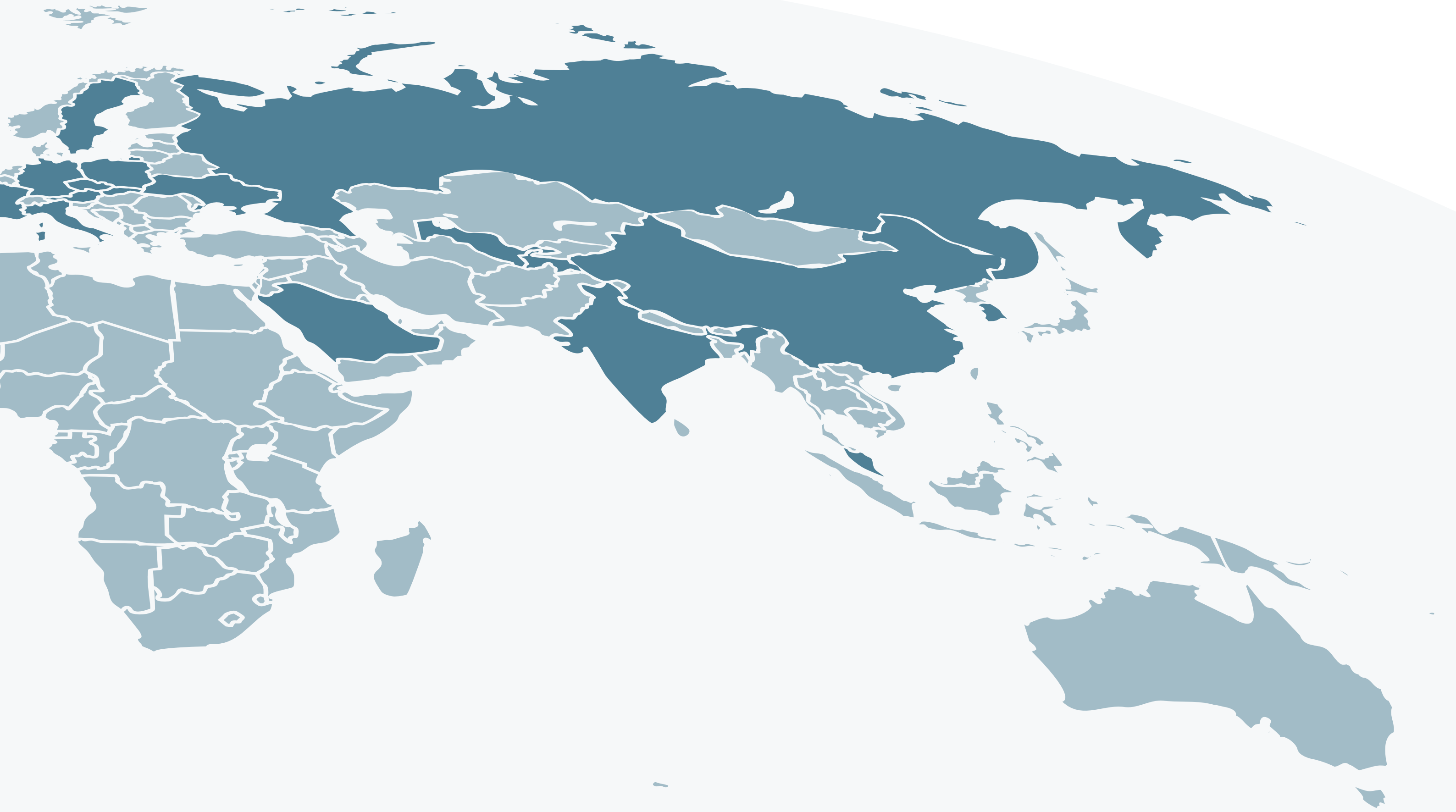
POWER SYSTEMS
Armenia / Denmark
Germany / Faroe Islands
Greenland / Austria
Russia / Sweden
Slovak / Republic
Tajikistan
Czech Republic
Turkmenistan / Ukraine
Uzbekistan

RENTAL

Denmark
Germany
Austria
Sweden
Slovakia
Czech Republic

PLANT ENGINEERING

Belgium / Brazil / China
Germany / France
United Kingdom / India
Italy / Russia
Saudi Arabia / Singapore
South Korea / USA

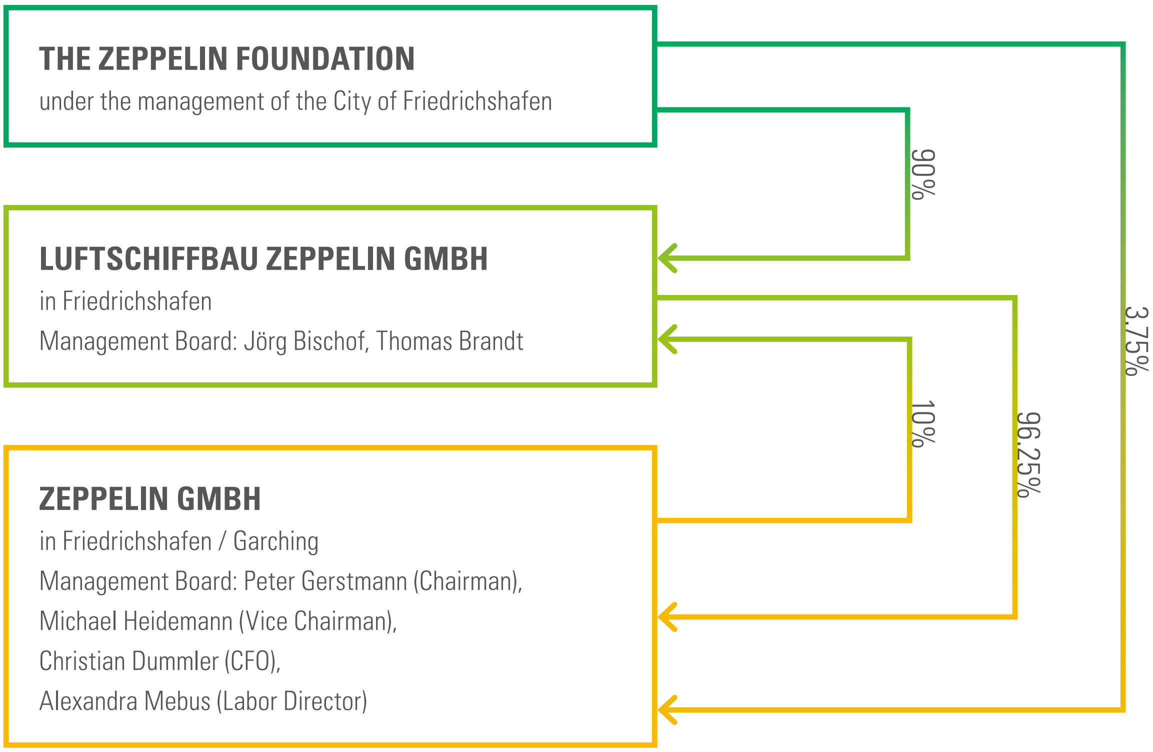


[1] Hyster forklifts / Manitou material handling equipment / Groupil electric vehicles / Grove mobile cranes / Meclift container movers / Kamag swap-body transporters and terminal tractors only

OVERVIEW OF THE ZEPPELIN GROUP

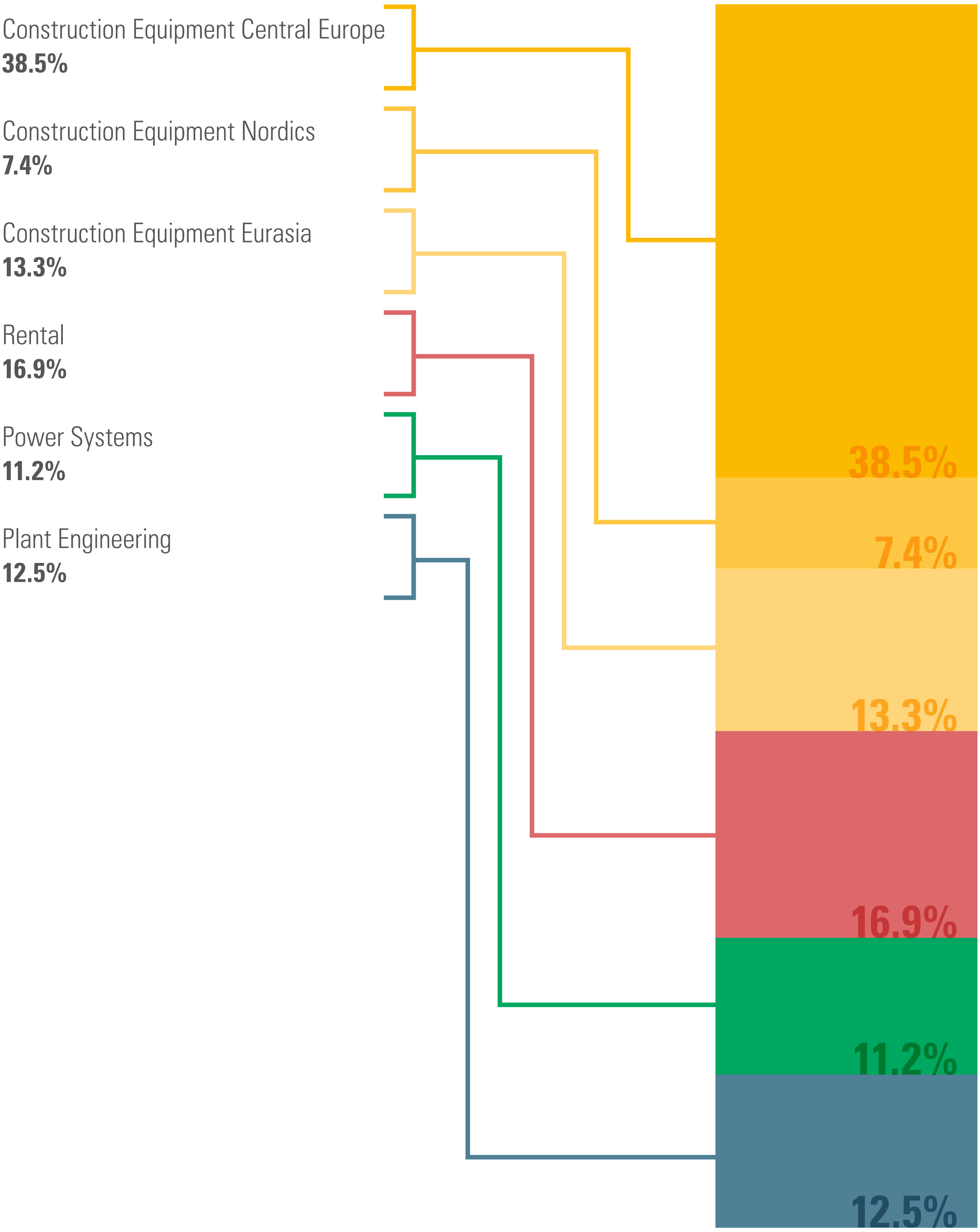
The Zeppelin Group – a foundation-owned company

Its roots can be traced back to the establishment of the Zeppelin Foundation by Ferdinand Graf von Zeppelin in 1908. The Zeppelin Foundation still owns a direct stake in Zeppelin GmbH, as well as an indirect stake via Luftschiffbau Zeppelin GmbH.



Zeppelin Group offers solutions in the construction industry, drive and energy systems, engineering and plant engineering. The Group provides customers with expertise in a number of areas, from the distribution and service of construction, mining, forestry and agricultural machinery, through rental and project solutions for the construction industry and industry as a whole, to drive and energy systems as well as engineering and plant engineering, and enhances its offering with digital capabilities in all areas. Zeppelin is represented at more than 340 sites in 26 countries and regions worldwide. In the 2022 financial year, the Group workforce comprised over 10,000 employees and generated sales of EUR 3.8 billion. The Group organizes its activities into six strategic business units (Construction Equipment Central Europe, Construction Equipment Nordics, Construction Equipment Eurasia, Rental, Power Systems, Plant Engineering) and the Zeppelin Digit Strategic Management Center. Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching bei München.

Share of Group Sales [1)]



[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

CONSTRUCTION EQUIPMENT CENTRAL EUROPE

Distribution and service of construction equipment in Central Europe

The Construction Equipment Central Europe SBU is a leader in the distribution and service of new and used construction machines, as well as add-on parts and components. Its range includes over 200 different types of machine from market leader Caterpillar. This SBU provides customers with powerful earthmoving, excavation of materials, demolition, recycling, and civil engineering and road construction equipment, and also offers machinery for gardening and landscaping, agricultural, and industrial use. The product range is rounded off with special equipment for surface and underground mining, plus fleet management and machine control systems. A dense network of branches, with 70 sites across five European countries as well as central spare parts warehouses, guarantees a fast response and quick delivery for customers. The general overhaul of construction equipment also presents a cost-effective and resource-conserving alternative to buying new. There is a particular emphasis on all-round assistance for customers, who are offered a range of offered holistic solutions from custom-tailored financing to all-inclusive contracts.

Business with construction equipment continues to develop and change. As digitization continues to grow in importance, our customers are increasingly required to adapt to it. This applies not only to assistance systems or machine controls and fleet management, but also to procurement offerings such as the new Zeppelin Cat Shop, which we are building up in parallel with our established distribution department. New telematics solutions such as our Como service dashboard will also play an increasingly important role in maintenance, enabling machine failures to be avoided by means of efficient maintenance planning. By creating a digital marketplace for the entire fleet and linking machine data with concrete services, we proactively support customers in optimizing the use of their machines."

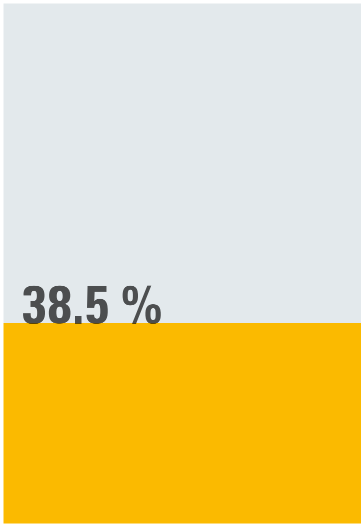
– Fred Cordes,
Head of the
Construction Equipment Central Europe **strategic business unit**

You can find further information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/baumaschinen-zentraleuropa/

Sales
in millions of euros / in accordance with IFRS

Employees
year's average, including trainees

Share
of Group sales (2022) [1)]



[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

CONSTRUCTION EQUIPMENT CENTRAL EUROPE

REVIEW

The Construction Equipment Central Europe SBU has had a successful financial year with stable development in earnings and sales. Despite continuing supply bottlenecks in the construction equipment industry, the order backlog reached a record high, meaning that continued good business development can be expected. Order entry was also stable at the previous year's level. High commodity prices and economic stimulus packages in the US and Europe are driving demand for machinery and technical solutions for mining, construction and industry. In addition, new business segments opened up or expanded future-focused topics such as digitization and the desire for carbon neutrality.

Market share developed differently across the respective countries. In Germany, Czech Republic and Slovakia, market share fell due to Caterpillar's challenging delivery capacity and highly dynamic prices, while the market position in Austria was further expanded. Despite the current crisis environment, the construction machine market in Germany declined only slightly over the course of the year. Demand for construction machinery also declined in Austria. Among other aspects, this was due to expiring government investment programs and planning uncertainties arising from dramatically fluctuating commodity prices and poor availability across the entire market. The latter also impacted Czech Republic and Slovakia, however, major construction projects financed from EU funds had a positive effect on market development in those locations. Zeppelin Poland has succeeded in significantly increasing sales of Hyster, Manitou and Kamag machines. Strong growth was recorded particularly in selected market segments such as the paper and metal industry.

A large number of new products were placed on the market in 2022, which significantly enhanced service options for customers. Along with the gardening and landscaping, earthmoving, civil engineering and road construction sectors as well as the mining industry, these new products were also aimed at the recycling segment and the waste and disposal industry, which can now be served with an even wider range of machine technology. New Cat mini excavators, tracked excavators, wheel loaders and tandem and combi rollers have been added to the new generation of Cat product lines. New models with an operating weight of up to 60 metric tons have been added to the range of rehandling excavators for the recycling industry. Zeppelin presented a total of 50 new Cat construction machines at bauma 2022 in October, including four battery-powered electric Cat prototypes in the compact and medium-sized machine class, which received an extraordinary level of attention. Customers were already able to secure a production slot for these machines from our partner Caterpillar.

A major order from Osnabrück-based construction company Köster in 2022 involved the delivery of 139 Cat construction machines including a full-service contract. The Federal Agency for Technical Relief (Technische Hilfswerk, "THW") requested more than 70 new Cat 926M wheel loaders for equipping its local groups.

Digital customer services have also been further expanded. In the new Zeppelin Cat Shop at www.zeppelin-cat.de/shop, we launched online sales of compact Cat construction machines, accessory attachments and equipment. Zeppelin presented COMO (Condition Monitoring), a new digital platform for efficient maintenance planning. COMO allows users to manage maintenance measures themselves. If faults occur on the machine, the error codes are simply decoded and interpreted. This means that fleet operators of construction machines can order the spare parts they need even more conveniently, take a targeted approach to scheduling repairs, prepare for maintenance and efficiently adapt to operation and construction site deployment.

In the context of reducing their carbon footprint, companies in the construction and building materials industries are increasingly putting into operation modern Cat construction machines with diesel-electric drive or power-split and stepless transmission. The "Trolley Assist" system from Caterpillar facilitates efficient maintenance planning so that diesel-electric Cat dump trucks can be operated over long distances via overhead lines, in this way delivering transport performance with reduced fuel consumption. In addition, we are currently establishing Zeppelin's first greenhouse-gas-neutral branch and rental store in Eschweiler (North Rhine-Westphalia).

OUTLOOK

The geopolitical situation means the economic situation will remain tense in 2023, although currently our customers still have a high order backlog. This means that Zeppelin is starting the new financial year with an above-average order backlog.

Zeppelin will therefore focus even more on customer requirements in traditional segments such as earthmoving, civil engineering, road construction and gardening and landscaping, but also in raw material extraction, demolition, recycling and disposal. Zeppelin's particular strength is its service, and this will continue to be expanded in the coming year. The Construction Equipment Central Europe SBU is particularly pushing ahead with digital services relating to our online customer portal, in which a new sales record was achieved in 2022.

Energy supply remains a further stress test for the economy, and makes efficient energy use even more important. The Construction Equipment Central Europe SBU is well prepared for this thanks to the new-generation Cat construction machine product portfolio with its assistance systems. Caterpillar also presented a new generation of battery-powered machines at bauma. These machines will soon be available, delivering solutions for energy efficiency and sustainability. Machines with climate-friendly drive systems will become significantly more important against the backdrop of climate change.

CONSTRUCTION EQUIPMENT NORDICS

Distribution and servicing of construction and mining equipment in Northern Europe

The Construction Equipment Nordics strategic business unit is a reliable partner for the distribution and service of new and used Caterpillar construction machinery and accessories. It offers customized solutions in the fields of earthmoving, excavation of materials, demolition, recycling and road construction, as well as for gardening and landscaping, and forestry. One focus is supporting mining operations in northern Sweden. The products offered in this territory also include special equipment for surface and underground mining, fleet management equipment, machine control systems and other technological solutions. Zeppelin operates a network of branches in Sweden, Denmark and Greenland, encompassing 13 sites, a special component repair center, and spare parts warehouses.

"The needs of our customers in Northern Europe, continuous development of our employees and a particular focus on safety and sustainability will help us to serve our customers even better. In this way, we are paving the way for further profitable growth in the Nordic countries."

– Volker Poßögel,
Head of the Construction Equipment Nordics strategic business unit

You can find further information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/construction-equipment-nordics/

Sales
in millions of euros / in accordance with IFRS

2022: **292**
2021: **292**

Employees
year's average, including trainees

2022: **709**
2021: **667**

Share
of Group sales (2022)[1)]

7.4 %

[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

CONSTRUCTION EQUIPMENT NORDICS

REVIEW

Sweden's construction sector growth slowed significantly in the second half of 2022. Residential construction decreased, though commercial construction increased. Demand for residential property has also decreased in Denmark on account of rising interest rates. The strained supply situation, labor shortages and rising inflation also had a significant impact on the construction machinery industry.

Sales were at last year's level at our company in Sweden. Order entry in Sweden remained below the previous year due to long delivery times from Caterpillar. Delayed new machine deliveries also led to a decrease, whereas demand increased in the spare parts and service business to which the company took a proactive approach. The order backlog for new construction machines was higher in Sweden than in the previous year. Zeppelin is currently constructing a new building for its headquarters in Landvetter near Gothenburg. Sales in Denmark were above the previous year's level, while order entry and order backlog also increased further here. Very successful used machine business contributed to the company's positive development in Denmark.

The SAP project entered its next phase in 2022. Zeppelin Sweden, Zeppelin Denmark and Zeppelin Power Systems will implement the concept phase up until February 2023, in close collaboration with Zeppelin Digit. The SBU-wide "Safely Home Everyday" initiative was also launched in 2022. This environment, health and safety program is directed at all employees in Sweden and Denmark.

OUTLOOK

The economic framework conditions for the Construction Equipment Nordics SBU continue to be fairly positive. In Sweden, ongoing infrastructure projects (rail and road networks, port facilities) and a strong expansion of mining activities in northern Sweden will have a positive impact. Further decline in the construction industry is likely, due to high energy prices, inflation and low investment from government budgets; a slight decline in the construction equipment market is anticipated in line with this.

The Danish government has initiated an infrastructure plan with total investments of DKK 105.8 billion by 2035. Several projects are scheduled to start in 2023. For this reason, stable development in the construction industry and the construction machinery industry is expected in the coming years. However, a slight market decline is expected for 2023.

The SBU will continue to pay particular attention to sustainability considerations. Both the construction of the new headquarters in Landvetter near Gothenburg and the energy-related refurbishment and conversion of the existing properties will be carried out under strict sustainability criteria and in consideration of the target of carbon neutrality in ongoing business operations by 2030.

The Construction Equipment Nordics SBU will forge ahead with its growth strategy by expanding its product portfolio and financing solutions and increasing its focus on the service and rental business. In-depth use of machine and system data will play a decisive role in this success.

CONSTRUCTION EQUIPMENT EURASIA

Distribution and service of construction, mining and agricultural equipment in Eurasia

The Construction Equipment Eurasia SBU is active in Eastern Europe and Central Asia. Its portfolio includes Caterpillar construction equipment and special equipment for surface and underground mining, as well as large and special equipment for mining, quarries, and the oil and gas industry. It also extends to agricultural and forestry equipment from leading international manufacturers. The extensive product range is rounded off with fleet management and machine control systems for improving work processes and enhancing efficiency. Zeppelin has 40 sites across six countries in the Eurasian cultural area (in Ukraine, parts of Russia and other CIS countries). Zeppelin leads the way in the region, with its Component Repair Centers for overhauling drive components (engines, axles and transmissions) for mining equipment.

Despite market fluctuations and crises, Zeppelin's business in Eurasia has developed very successfully in recent years. Russia's war of aggression against Ukraine has resulted in a completely changed situation which is still difficult to understand, and has had a massive negative impact on the SBU's business. The high volatility of the Eurasian market, driven by the currently prevailing local and military conflicts, is minimized by means of our consistent risk management."

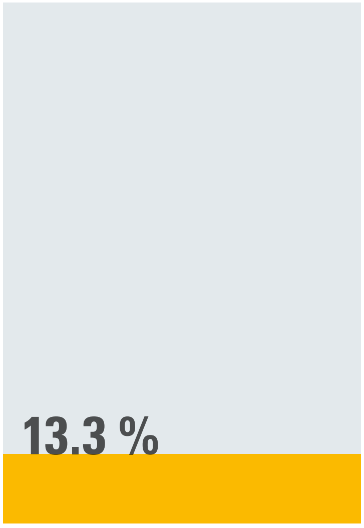
– Frank Janas,
Head of the Construction Equipment Eurasia SBU

You can find more information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/

Sales
in millions of euros / in accordance with IFRS

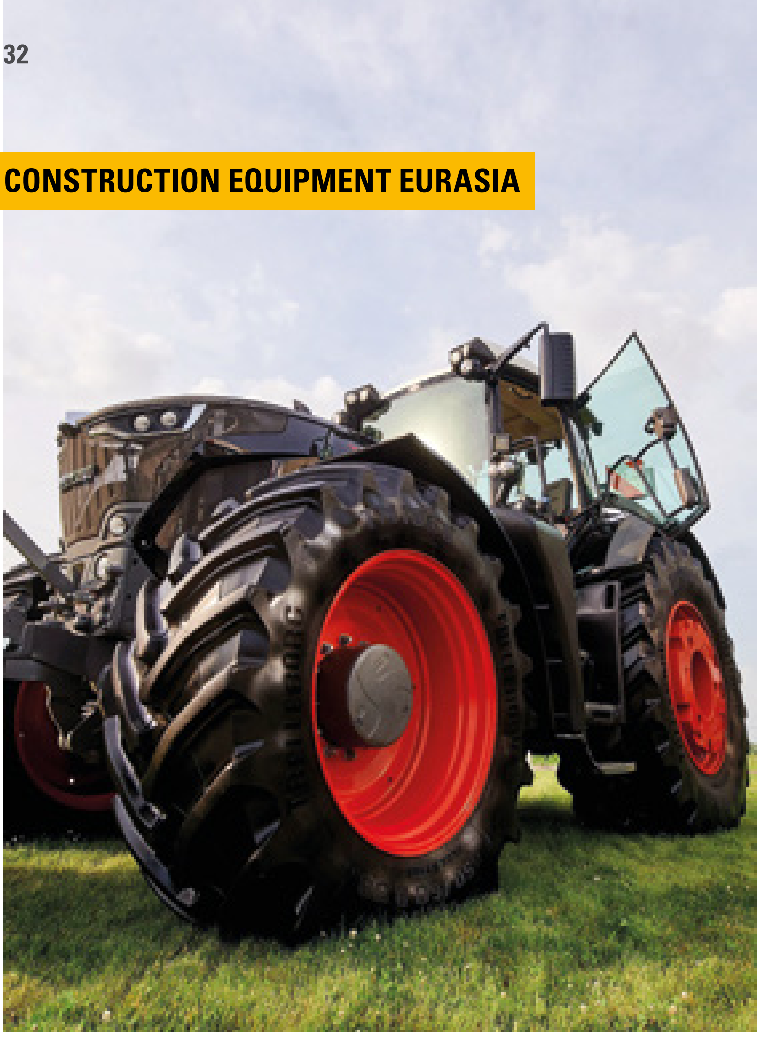
Employees
year's average, including trainees

Share
of Group sales (2022) [1)]



[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

CONSTRUCTION EQUIPMENT EURASIA



REVIEW

After strong market growth in 2021, the Construction Equipment Eurasia SBU had a positive start to 2022. At the beginning of the year, Zeppelin customers recorded a very good order situation, high capacity utilization in the mining and construction and agriculture sectors, and strong demand for spare parts and services.

However, this positive business development was abruptly interrupted by the Russian war of aggression against Ukraine, with business in the war zone almost completely at a standstill since February 2022. Business here was limited to services as well as the sale of spare parts and individual construction and agricultural machines to customers in the mining and agriculture sectors. The ongoing war shrank Ukraine's economic power by more than a third in 2022. Zeppelin branches in the east and northeast of Ukraine have been closed.

Mining and agriculture proved to be stability factors in times of crisis, enabling Zeppelin to achieve robust sales, albeit significantly lower than before the outbreak of war, from mid-2022. Due to strong demand for services and spare parts, capacity utilization in customer service was particularly high. This enabled Zeppelin to continue paying salaries in Ukraine and to generate a positive cash flow and a balanced result in spite of all circumstances.

Since the start of the war, Western sanctions against Russia and Belarus have led to massive restrictions on business activities. Due to the extensive sanctions imposed on Belarus, Zeppelin has decided to sell its subsidiary Zeppelin Belarus to an external investor with effect from 29 July 2022 as part of a management buyout. In consultation with Caterpillar, Zeppelin will retain responsibility for the Belarus service territory and will be maintain a representative office in Minsk without any business activity until further notice. In Russia, Western sanctions led to a massive slump in business activity with extreme economic losses. Zeppelin's mining business segment was almost completely discontinued in Russia, with branches closed, and personnel numbers reduced. In coordination with Caterpillar, the sale of new Caterpillar construction machines and engines was discontinued in the middle of the year. Imports of forestry and agricultural machinery from

our partners Ponsse and AGCO have also been suspended. Strict compliance with all sanctions and restrictions is being ensured for the remaining business as part of our obligations to our partners, employees and customers.

Meanwhile, there was positive business development in Armenia. Following record sales in the previous year, Zeppelin Armenia once again significantly increased sales of construction machines and spare parts in 2022. The Caterpillar company received an award as the best construction machine dealer in Eurasia in recognition of its achievements. The strong demand is a result of extensive government infrastructure measures. In addition to the strong order situation, the excellent customer retention efforts of the sales and service teams were an important success factor. These achievements saw Zeppelin once again ranked as the market leader in our industry in Armenia.

The positive trend also continued in Uzbekistan. The Uzbek government's consistent course of reforms, which includes structural renewals, an attractive investment climate, and the introduction of modern technologies, has enabled Zeppelin to undertake many attractive projects in Uzbekistan. The high volume of raw materials available in the country also offers good opportunities for growth in the mining industry.

CONSTRUCTION EQUIPMENT EURASIA

OUTLOOK

While Zeppelin companies in Eurasia have been confronted with volatile market fluctuations and crises for many years, the current war situation poses completely new and unpredictable challenges. The ongoing conflict is paralyzing social life and weakening international economic output, and as things stand, a peaceful solution seems a distant prospect. Zeppelin will continue to support its employees and their families in the war zones and will make every effort to ensure that salaries continue to be paid this year. This will also ensure that our company can help rebuild Ukraine after the end of the war.

We see good growth opportunities in mining, the market segment in Ukraine in which Zeppelin achieves the highest sales. Massive destruction of the electrical energy supply and transport infrastructure has had a lasting impact on mining production, and our customers will not be able to continue production until this damage has been repaired across the board. Accordingly, demand for repair services and spare parts will also increase. It can be assumed that agricultural businesses will continue their seasonal work as usual and thus that the positive trend in the agricultural machinery market will continue,

with particularly high demand expected in Ukraine and Uzbekistan. Zeppelin will also continue to be represented as a distribution and service partner for the US AGCO Group in selected sales territories with the Fendt, Valtra and Massey Ferguson brands, and will carry on its close partnership with leading manufacturers of premium add-on products such as detachable parts and spray and seed drills.

Due to the planned state infrastructure programs, we anticipate continued strong demand for construction machinery, spare parts and services in Armenia.

The SBU is anticipating robust development of the business in the Central Asian sales territories, particularly in Uzbekistan, which is experiencing the most dynamic development in Central Asia. The government's consistent course of reform is opening up and stabilizing the country and creating attractive conditions for foreign investment. Uzbekistan is also the second largest producer of gold worldwide and expects to expand its annual production volumes of gold and copper significantly in the future. This will require significant investment in mining equipment.

Agriculture is also an important economic factor in Uzbekistan, with the state planning a major expansion of the production of cotton and fruit for export to European countries. The Uzbek government's reform programs include numerous measures to develop the national labor market and promote local production. For this reason, Zeppelin Uzbekistan has opened a localization center in Tashkent, where selected final assemblies for construction machines and components are carried out in close cooperation with Caterpillar. Its "Assembled in Uzbekistan" certificate ensures that Zeppelin qualifies for state tenders.

Geopolitical tensions, sanctions, and internal political instability, as well as the inestimable consequences of the ongoing war against Ukraine, will continue to pose challenges for Zeppelin in the Eurasian region in 2023. Strong worldwide demand for equipment and engines means it will be increasingly difficult for our manufacturer partner Caterpillar to provide sufficient quantities on time and in line with our customers' requirements. Extensive export control processes are in place to ensure strict compliance with Western sanctions in this context.

RENTAL

From rental equipment to project solutions

With customized solutions in the areas of machine and equipment rental, temporary infrastructure and construction logistics, the Rental SBU ensures the safe and efficient execution of projects in construction, industry, manual trades and events. More than 75,000 machines and devices for rent, from the global market leader Caterpillar and other renowned manufacturers, guarantee maximum availability, quality and range. Temporary infrastructure provides needs-based concepts in site and traffic guidance, energy and construction water supply, power generation and air conditioning technology as well as customized modular room solutions: Planning, installation, and ongoing support from a one-stop shop. Through the overarching planning and coordination of all secondary processes on a construction site, construction logistics ensures the framework conditions for smooth processes as well as adherence to deadlines and budgets. Zeppelin Rental is represented in six countries with over 160 rental stores, competence centers, and operating facilities, and is one of the largest equipment rental companies in Europe.

"Our employees have done an outstanding job in a challenging year: With great passion, they fulfilled our customers' wishes and requirements even when faced with a high workload, and were always open to innovations as part of our further development. It is only through the motivation, passion and dedication of our team that a successful year like 2022 is at all possible. I thank the best team in the industry for this great commitment!"

– Arne Severin,
Head of the Rental strategic business unit

You can find further information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/rental/

Sales
in millions of euros / in accordance with IFRS

2022: **666**

2021: **576**

Mitarbeitende
im Jahresdurchschnitt inkl. Auszubildende

2022: **1,982**

2021: **1,811**

Share
of Group sales (2022)[1]

16.9 %

[1] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

RENTAL

REVIEW

The Rental SBU closed a successful 2022 financial year. The company once again significantly exceeded the previous year's figures in terms of both sales and earnings. Apart from Austria and Sweden, all relevant markets – Germany, Czech Republic, Slovakia and Denmark – recorded an increase in market volume. In machine and equipment rental, capacity utilization in terms of time and money continued to be at a very high level.

The Rental SBU maintained a strategy within its five business segments and five foreign markets, and continued to work on expanding its integrated offering across the board. The focus was on growth abroad, especially in Sweden and Denmark. Public (schools, hospitals) and industrial construction (logistics centers, factories in the energy sector) flourished here, while the real estate market in the private sector fell significantly.

The German construction industry was also successful in overcoming the coronavirus crisis and its effects. A slight decline in housing construction was also recorded due to high mortgage interest rates, rising inflation and material shortages. This was also the case in the foreign markets in Austria, Czech Republic and Slovakia.

In Germany, Zeppelin Rental focused on restructuring construction site and traffic guidance and the expansion of digital products across all business segments. Zeppelin Rental GmbH expanded its portfolio of digital solutions with the Rental+ app. Using a principle similar to car-sharing, users benefit from maximum flexibility, lower costs and increased efficiency that conserves resources. Following the successful piloting as part of a major project in previous years, launch on the German market took place in 2022.

Zeppelin Rental also launched a pilot project with the innovative akii digital solution. The app, developed in the Zeppelin Lab in Berlin, takes care of key management on the construction site, ensuring greater security. Rental currently uses the intelligent smartphone application for a total of 100 locks on rental containers in 16 centers of excellence and service centers throughout Germany.

In Czech Republic, the rental business was extended with new locations and personnel expansion, while growth of the existing portfolio was achieved in Slovakia by means of new rental stores. In addition to the establishment of further sites and the hiring of new employees, a portfolio expansion analysis was conducted in Scandinavia. Zeppelin Rental also continued implementation of the sustainability agenda here, for example by introducing the ecoRent rental program, which is characterized by climate-friendly and low-emissions technologies.

The handling of various large-scale projects such as overarching construction logistics for the BE Strandkai construction project in Hamburg's HafenCity represent success stories for Zeppelin Rental. With the company's support, around 500 apartments and a large number of commercial spaces were built on a promenade at the port of Hamburg in 2022, with a total area comprising over 14,000 m². "Last Mile" construction logistics were also used to precisely coordinate, track and record material flows on the construction site – i.e. the last mile. Among other aspects, the trades were able to access their material inventory in real time, avoiding unnecessary waiting times due to missing materials. The construction project was awarded the Golden Ecolabel "HafenCity" by HafenCity Hamburg GmbH, the first building certificate for sustainable construction in Germany.

OUTLOOK

The Rental strategic business unit is looking optimistically to 2023 in spite of the currently difficult framework conditions, and expects similar development as in 2022. To meet the demand for machinery and equipment rental, increased investment is being made in the rental fleet and inventory is being built up. Despite housing construction declining due to interest rate rises and a rather subdued mood in construction, the SBU continues to expect brisk construction activity in all markets despite a forecast slight decline in construction investments. In addition, the diversified range of solutions with high relevance for sectors such as industry and events is strengthening confidence.

The focus is on the further comprehensive expansion of the integrated solutions offering consisting of machine and equipment rental, services in temporary infrastructure and construction logistics. The business area of construction site and traffic guidance is being further developed in Germany. Special attention is directed to growth abroad, especially in Sweden and Denmark. Although the construction industry in Sweden expects negative growth, the forecast for the rental market there is +1.8%; and in Denmark +1.3%. The figures in Germany (+2.4%), Austria (+2.1%), Czech Republic (+5.2%) and Slovakia (+0.5%) are also positive. Digitization and ecological sustainability remain central to achieving carbon-neutral business operations by 2030, as well as supporting customers

in achieving their sustainability goals. In the area of digital transformation, the focus is on both

internal processes and the provision of online-based customer services for greater efficiency and added value. The digitization of business processes enables more resource-efficient work and contributes to greater sustainability, as does the range of climate-friendly machines and pieces of equipment in the ecoRent program.

POWER SYSTEMS

Drive, propulsion, traction, and energy systems

Zeppelin is a leading provider of drive, propulsion, traction, and energy solutions for industrial and marine applications, rail vehicles, the oil and gas industry, and power and heat generation. Its portfolio includes Caterpillar engines in all power classes, worldwide service for Cat and MaK engines, and digital solutions. Alongside drive solutions based on diesel, gas and dual-fuel engines, and in future also alternative fuels, Zeppelin offers generator sets for power generation, combined heat and power plants, ship propellers, complete drive systems, and complementary systems. These are used in industry, agriculture, seagoing and inland waterway vessels, in rail transport, and in petroleum and natural gas production. Digital products for all segments as well as system components and complete solutions for treating ballast water complete the portfolio.

"Despite the challenges posed by Russia's war against Ukraine, ongoing supply bottlenecks and material shortages, we closed 2022 with a satisfactory result. Our focus continues to be on expanding digital business models as well as alternative drive systems and fuels. This makes us the ideal partner and solutions provider for our customers' individual requirements."

– Ralf Großhauser,
Head of the Power Systems business unit

You can find further information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/power-systems/

Sales
in millions of euros / in accordance with IFRS

2022: **442**
2021: **437**

Employees
year's average, including trainees

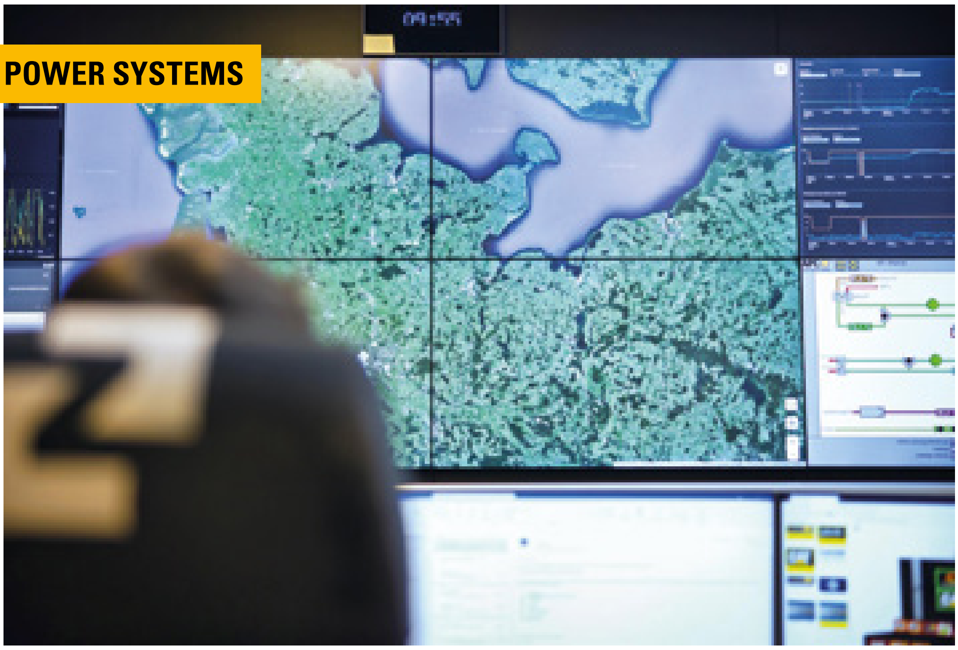
2022: **1,041**
2021: **1,057**

Share
of Group sales (2022) [1)]

11.2 %

[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

POWER SYSTEMS



In the area of “electric power” based on gas engines, the high dependency on the gas supply from Russia caused uncertainty. However, the market calmed down gradually and initial investment decisions are in sight. Despite supply-chain-related delays in the construction of new data centers, the market in the area of “electric power” is constantly growing.

There was increasing movement in the marine market, supported by military and government projects as well as investments in the inland, tourism and mega-yacht segment. The market volume of ballast water treatment systems hit a high point, and volumes are expected to decline in the medium term.

REVIEW

In 2022, both sales and earnings in the Power Systems SBU came in below the previous year’s figures. International business has been severely impacted by the current sanctions situation in Russia and Belarus, as well as the consequences of the war in Ukraine and the energy crisis. The strategic business unit has therefore completely withdrawn from its operations in Belarus. Employee capacity was below the previous year’s level and below the forecast; this is due to a reduction in employees in the Russian company and the sale of the company in Belarus.

Supply chain problems and limited material availability resulted in bottlenecks, especially in the ordering of engines and spare parts. High demand in the industrial segment could not be fully met due to a lack of deliveries and the associated production delays. A very high level of capacity utilization was recorded in the entire service area. In the marine segment in particular, overhauls and repairs of cruise ships, yachts and tugboats have resulted in high order entries. For rail vehicles our business was limited to existing project contracts, but there was a lack of larger-scale series production projects for locomotive engines on the market.

The Power Systems strategic business unit’s focus topics for 2022 were digital solutions as well as alternative drive systems and fuels. The business unit worked harder to explore possible options for system integration and for the construction and marketing of heat pumps. The PEM (Proton Exchange Membrane) and SOFC (Solid Oxide Fuel Cells) fuel cells projects progressed further. Power Systems also invested in the use of fuel cells in maritime applications and plans to develop prototypes in the future.

OUTLOOK

High capacity utilization in the engine and service business plus high order entry mean that the Power Systems SBU is looking to 2023 with optimism. The current restrictions on material availability and delivery times for parts and engines dampen these prospects to some extent.

Power Systems will continue to position itself as a solutions provider that customizes drive and energy systems, as well as offering additional services in accordance with customer requirements.

At the same time, service activities for Caterpillar and MaK engines remain one of our core competencies. In addition to new diesel and gas-powered Caterpillar engines, our product portfolio will in future also include engines that can use up to 25 percent hydrogen admixture. In the long term, these engines are expected to be operated with 100 percent hydrogen. Cat engines can also be operated with alternative fuels such as biodiesel, hydrotreated vegetable oils (HVO) or synthetically produced fuels such as GTL (gas-to-liquids). In future, Power Systems will also offer engines that run on a methanol admixture. The use of pure methanol is planned in a further development stage.

The SBU is also researching the use of fuel cells. To this end, a pilot plant for developing prototypes will be installed at the Achim site. As announced in 2021, Caterpillar has discontinued the construction of new medium-speed MaK engines and will in future concentrate exclusively on after-sales service. Power Systems continues to offer a full MaK service business.

Another focus topic for 2023 is the expansion of digital business models. Zeppelin Power Systems supports customers in making the operation of their engines and systems more efficient, safe, and sustainable with customized in-house-developed solutions such as Active Equipment Connect (AEC). This makes it possible to connect engines and systems irrespective of manufacturer; to collect data around the clock; and to view and evaluate these data in the Fleet Operations Center (FOC) if necessary. The services range from the simple provision of data and individualized reports in a web portal to 24/7 monitoring, consulting and other services.

PLANT ENGINEERING

Engineering and plant engineering

Plant Engineering specializes in constructing systems for the handling of high-quality bulk materials. With over 70 years of experience of the individual process steps and extensive expertise in handling various raw materials, Plant Engineering offers reliable complete solutions. From system planning to implementation, the company supports its customers worldwide at 22 locations, providing all services from a single source. Innovative process concepts are just as important as smart automation solutions and comprehensive service that covers the entire lifecycle of a system. Each Zeppelin system meets the individual requirements of its customers, who are in industries such as plastics, recycling, chemicals, rubber and tires, as well as food. As operator of the world's largest Association of Technical Centers for Bulk Materials, Zeppelin makes it possible for its customers to review and optimize plant design on an industrial scale. In addition, Plant Engineering develops and manufactures its own components for the plants' key functions, which are also used in third-party plants.

Despite the volatile business situation, Plant Engineering managed to consolidate its market position in 2022. This shows that our broad portfolio strategy provides a strong foundation and therefore a solid basis for sustainable growth. I look forward to investing in existing and new business segments in 2023 so that we can unlock our potential in the best possible way."

– Dr. Markus Vöge,
Head of the Plant Engineering strategic business unit

You can find further information at
www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/anlagenbau/

Sales
in millions of euros / in accordance with IFRS

2022: **493**
2021: **340**

Employees
year's average, including trainees

2022: **1,699**
2021: **1,614**

Share
of Group sales (2022)[1)]

12.5 %

[1)] Here: Total SBU sales. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

PLANT ENGINEERING

REVIEW

Plant Engineering struggled with a sharp market slump in 2020. The relevant markets recovered in the following year, and this trend continued in 2022. The SBU secured a record year for order volume in almost all market areas and regions thanks to its high level of market activity, broad process engineering expertise, international presence, and excellent market position in the future industries. At the same time, the Chinese companies exceeded all expectations with an order entry of more than EUR 230 million. The biggest challenges in project execution in 2022 were supply bottlenecks and delays, as well as the availability of qualified personnel. In addition, price increases had a dampening effect on margins.

Despite the very good sales performance by the Plant Engineering SBU, a major order that could not be completed and delivered due to sanctions against Russia led to a significant negative impact on earnings. Zeppelin achieved particular order success in the growing future market of battery production in the USA. This development project resulted in increased cost burdens, which negatively impacted the SBU's result. The majority stake in Magdalena KITZMANN GmbH showed its first successes in 2022. Internal integration has been successful and the employees of both companies are already working together successfully. Kitzmann complements the Plant Engineering portfolio and extends the value chain, especially in the PVC and chemicals sectors.

The SBU is one of the leading plant manufacturers in the recycled plastics sector, and developed customized and continuously operating deodorization systems. Volatile organic compounds (VOCs) are removed from the recycled plastics during a thermophysical purification process. meaning that the recycled plastic no longer contains any unpleasant odors. In the long term, this means a higher proportion of plastic recyclates for the industrialized circular economy with consistently high product quality. That is a major plus on sustainability – not just for Zeppelin, but the entire ecosystem.

In the area of polyolefin plants (plastics production plants), Plant Engineering secured a major project for the delivery of a conveyor and silo plant in Abu Dhabi (UAE). Zeppelin positioned itself in the malting and brewing market segments by means of a project success in Ponta Grossa (Brazil). This was the first time a company had planned and built a malting plant of this size in Brazil, and the process set a record nationwide.

In the battery mass and electrode production market segment, two battery mass plants are currently being set up, with the German and US businesses involved. Zeppelin is a partner in the development of a new battery manufacturing process using process-critical mixers. In future, the results will be channeled into a global business segment that Zeppelin Systems will strategically develop.

In the food market, continuing cost pressures have dampened the appetite to invest, which has had an impact on the European market. Due to inflation and high energy costs, the baked goods business is stagnating. This necessitated the move to expanded market fields, including starch and animal feed.

OUTLOOK

In 2022, Zeppelin Plant Engineering recovered from the market declines in the sanctioned markets and offset these as effectively as possible. Despite continuing supply bottlenecks, stabilization at the 2022 level is expected for 2023. Promising projects indicate a positive financial year. This success was also possible thanks to the Group's broad portfolio and its activities in various industries as well as the extraordinary performance of the international companies. This is why the SBU is entering 2023 with full order books and a high order backlog, though at a somewhat lower level than in the previous year.

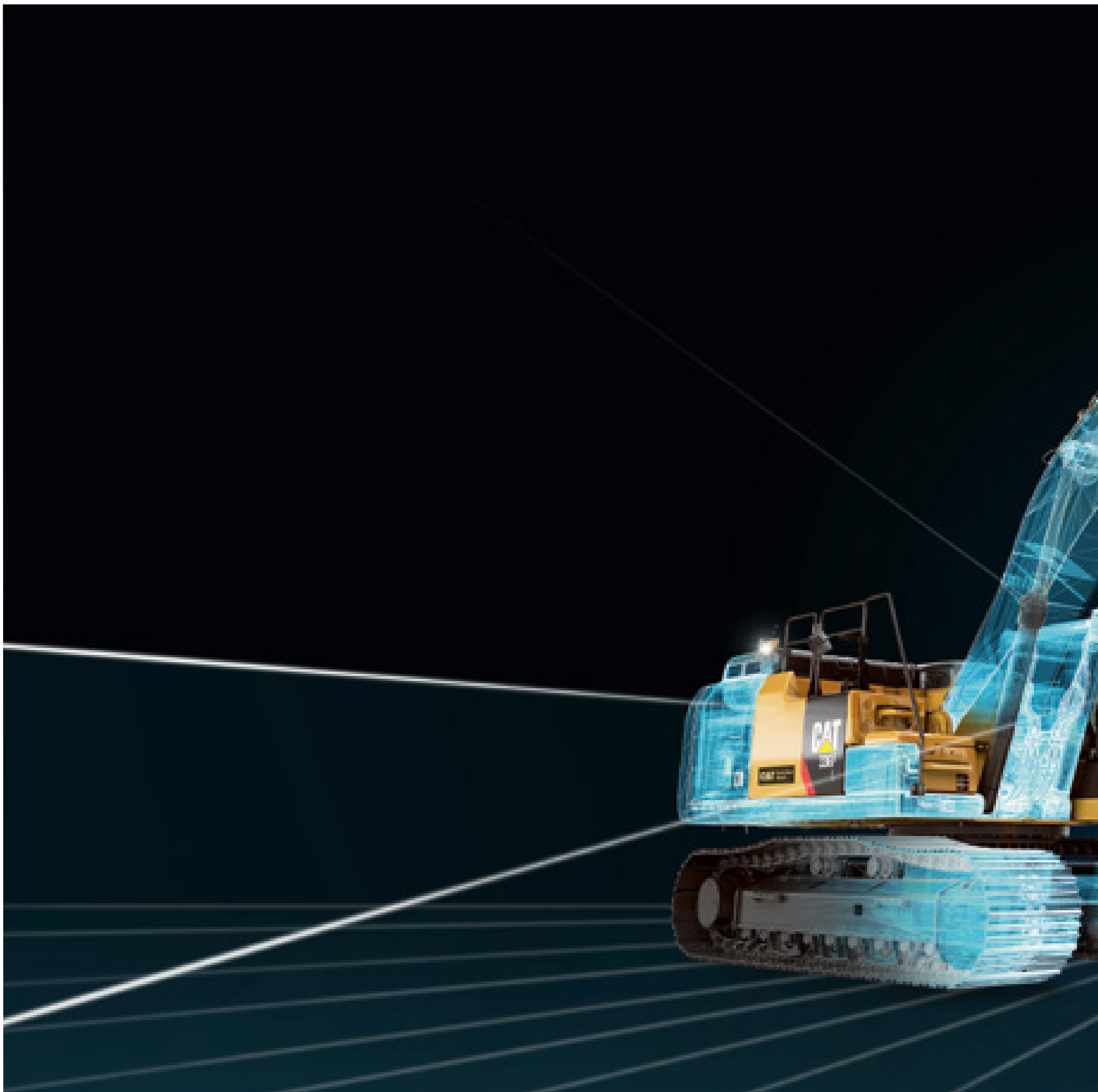
Due to the high level of process engineering expertise it offers, Plant Engineering anticipates further success in the areas of malt production, battery technology and electromobility over the next few years. Entry into sustainable markets such as plastics recycling as well as battery mass and battery recycling also promises the prospect of success. Important issues for the future here are high throughput capacity due to scaling of recycling processes, resource-efficient transport, high accuracy in the dosing of plastic flakes, needs-based storage and optimal homogenization.

Customers also expect support in achieving their sustainability goals. Here, Plant Engineering offers excellent products, sophisticated processes, new ideas for the use of recycled materials and advanced materials. In the area of digitization and networking, the traceability of raw materials throughout the entire production process continues to attract insufficient attention, though remote system maintenance will become increasingly important.

ZEPPELIN DIGIT

Digital innovations and transformations

The Zeppelin Digit Strategic Management Center supports all strategic business units as a cross-Group function, bringing together expertise in the Zeppelin Group from the areas of IT, data, infrastructure, IT security and compliance, and digital product development. With Zeppelin Digit, the Group is putting in place a consistent IT landscape based on an infrastructure which is standardized across all business areas. A user-centric approach is at the heart of everything we do, and pivotal to our commercial activity. Integrative and innovative tools and methods are harnessed to develop new products and services which address specific challenges facing users; the goal is to enable closer collaboration, fostering dialog within the Group – and creating the best solutions for customers.



> As a company, new technologies present us with new challenges, but also new opportunities. If a company wants to hold its own on the market in the long term, it must meet altered expectations on digitization and IT and quickly adapt to the new needs of customers and employees. This can only be achieved with a holistic digital business model that we are constantly working on – both on the customer side and on the company side."
>
> **– Arife Baltaci,**
> Head of the Zeppelin Digit Strategic Management Center

ZEPPELIN DIGIT

NEWZROOM

REVIEW

The Zeppelin Digit Strategic Management Center (SMC) continued to support the Group's internal digitization processes and IT projects in 2022. With the appointment of Arife Baltaci as Chief Digital Information Officer, Zeppelin Digit worked together with the Group Management Board and the strategic business units on the structural and content-related realignment and positioning of the Group-wide IT landscape. The aim is to fulfill a holistic IT service and servicing concept in order to enable digital products, processes and services to be offered completely and optimally for both customers and employees.

For the standardization of processes and systems, the integrative approach of the "Z4ALL" project laid the foundation for introduction of templates for all operational processes in the standard SAP system. The first step is to implement this solution for Zeppelin Sverige AB and Zeppelin Danmark A/S as well as Zeppelin Power Systems GmbH. The second step will then entail the subsequent rollout of the solution within the Construction Equipment Central Europe SBU. This solution is based on the latest technology standard (S/4HANA) from SAP. At the same time, a stabilization project was completed at Zeppelin Österreich GmbH to further expand and optimize the functionalities of the SAP solution which has already been in use since 2021.

In implementing "Salesforce"CRM system the Group-wide, the focus in 2022 was on the companies of the Construction Equipment Central Europe and Zeppelin Rental strategic business units in Germany. Further iterative releases will follow at regular intervals.

Expansion of the digital workplace with the "Journey to the Cloud" also continued to be a key focus of our work in 2022. The digital tool landscape has been enhanced, harmonized and automated, with Microsoft 365 as a central platform for efficient, digital and networked collaboration. In addition, every employee now has significantly more storage capacity via the new "Exchange Online" email platform.

Following rollout of the "Workday" Human Capital Management (HCM) system for all employees worldwide, the system was successively expanded in 2022 to include further functionalities such as succession planning, talent management and further training as well as connection with other local HR systems.

As of May 2022, all key company information worldwide has been digitally pooled in a central location, on the new "NEWZROOM" in-house platform. NEWZROOM replaces the Z INTERN employee magazine and not only offers employees rich and entertaining information, but is also more modern, sustainable and cost-effective than a printed edition. In addition to the website, the platform can also be accessed via an app on a private or work smartphone. In future, external communication channels such as social media channels and press releases will also be integrated into NEWZROOM.

In order to counteract risks from a still-very-tense cybersecurity situation, expansion of the global information security management system (ISMS) moved ahead at full steam, and close collaboration with all IT units continues. Awareness campaigns and comprehensive software solutions for data classification and the detection of phishing emails have also been implemented.

OUTLOOK

In 2023, work will continue on the structural and content-related optimization of processes, technologies and systems in order to be able to offer comprehensive IT services from the Group. Here, the focus will increasingly be on projects from the portfolios of Group companies, in order to take the needs of the customer and employees into account in an even more targeted manner.

The sustainable expansion of the digital workplace will remain an important topic for 2023.

The still heterogeneous digital tool landscape will be further harmonized, updated and automated with Microsoft 365 as a central platform. The Workday software is being continuously optimized in close coordination with the HR department.

The concept phase of the "Z4ALL" project ends in the first quarter of 2023, after which central implementation of the latest technology from SAP S/4HANA will begin. In 2024, advanced ERP technology will be deployed at Zeppelin Sverige AB and Zeppelin Danmark A/S, while the rollout of Salesforce as a CRM system and CAMOS as a CPQ system continues in parallel for our Construction Equipment Central Europe and Rental strategic business units. The first functionalities for implementation and use by Plant Engineering are also planned for 2023.

PRODUCT INNOVATIONS

CATERPILLAR AND ZEPPELIN PRESENTED FOUR BATTERY-POWERED ELECTRIC CONSTRUCTION MACHINES AT BAUMA

At the bauma 2022 trade fair in Munich, Zeppelin showcased four battery-powered electric prototypes developed by manufacturer partner Caterpillar for construction machines that are used particularly frequently – the Cat 301.9 mini excavator, the Cat 320 medium excavator, the Cat 950 GC medium wheel loader, and the Cat 906 compact wheel loader. The Cat 301.9 mini excavator and the Cat 906 compact wheel loader are expected to be the first models on the market.

The batteries developed by Caterpillar for the new electric machines will also be available for other industrial applications. Building on proven Caterpillar technology, the lithium-ion battery

range features a modular design that offers flexible configurations for multiple applications. The batteries are designed to adapt to the performance requirements of industry and customers, maximizing sustainability throughout their lifecycle.

SUSTAINABLE DRIVE SYSTEM FOR CAT ENGINES

Together with its manufacturer partner Caterpillar, Zeppelin is positioning itself as a solutions provider that customizes drive and energy systems as well as offering additional services to meet customer requirements. The range also includes engines that can run on up to 25 percent hydrogen admixtures. In the long term, it will be possible for these engines to be operated using 100 percent hydrogen. Cat engines can also be operated with alternative fuels such as biodiesel, hydrotreated vegetable oils (HVO) or synthetically produced fuels such as GTL (gas-to-liquids).

Caterpillar will also develop 48-volt, 300-volt and 600-volt batteries for the off-highway industry in the future. Using lithium-ion technology, the selection of batteries are distinguished by their modular design and sustainability throughout their entire lifecycle, allowing them to be reused and recycled at the end of their life.

BIM-BASED DEPLOYMENT PLANNING FOR RENTAL CUSTOMERS

When awarding public contracts, the use of Building Information Modeling (BIM) has been mandatory in Germany for certain minimum project volumes since January 2021. As this is also relevant to the planning of equipment or construction machinery, Zeppelin Rental GmbH is further expanding its expertise in this area. The new BIM-based deployment planning makes it possible to plan the deployment of machines and equipment in the virtual twin of a construction site. This reduces the risk of errors, increases efficiency and improves planning reliability.

DEODORIZATION SYSTEMS: ZEPPELIN SYSTEMS NEUTRALIZES ODORS DURING PLASTICS PRODUCTION

Processing recycled plastics poses two challenges for many companies: On the one hand, the plastic often features unpleasant smells and can therefore only be fed into the production process in limited quantities; and on the other, the amount of recycled material is increasing, meaning that existing plants are reaching their capacity limits. In view of this, there is a need for solutions that increase the proportion of recycled materials and at the same time offer high product quality for the plastics produced. Plant engineering not only presents an economical response to high throughputs with its technologies, but also offers degassing concepts in the form of continuously operating deodorization systems to neutralize odors. Volatile organic compounds (VOCs) are removed from the recycled plastics during a thermophysical purification process.

ZEPPELIN LAB: A SOURCE OF INNOVATION FOR DIGITAL PRODUCTS IN THE CONSTRUCTION INDUSTRY

Zeppelin Lab GmbH acts as an open innovation and founding center within the Zeppelin Group. This is where innovative solutions (ventures) are brought to market which contribute to productive, sustainable and secure development in the areas of construction, logistics and infrastructure. In 2022, the Zeppelin Lab aimed to further develop its products “akii” (digital access management on the construction site) and “zamics” (digital equipment management for the construction industry, especially on construction sites). The klickrent asset-free rental platform also continued to be successfully scaled on the market in 2022.

CORPORATE SOCIAL RESPONSIBILITY (CSR)

Corporate Social Responsibility is an integral part of Zeppelin's corporate strategy. As a foundation-owned company, Zeppelin is committed to the infinity principle and assumes responsibility in the areas of the economy, environment and society. Sustainable corporate governance is a prerequisite for Zeppelin if we are to make an authentic long-term contribution to the economy and to society as a sustainable and economically successful company, based on the strength of our corporate culture. Zeppelin does not focus on short-term profit, but on long-term, sustainable commercial success, generating value for employees, customers, suppliers, and the company itself. In the 2023 financial year, the Zeppelin Group will invest around EUR 13.5 million in CSR.

CLIMATE NEUTRALITY AT THE CENTER OF CSR WORK

Zeppelin defines strategic focal points at the beginning of each financial year; sustainability is integral to these considerations. SBU-specific, measurable targets and actions are defined in the strategy-setting process. In addition to the further development of our supplier management, the focus in 2022 continued to be on decreasing waste and water consumption as well as CO_2 reduction. A key goal for Zeppelin is to become carbon neutral in its own business operations by 2030. To this end, the Group has developed a modernization strategy for the energy-efficient refurbishment of all of its locations, and also, for example, the installation of photovoltaic systems (PV) and the expansion of the electric mobility infrastructure, which has already been implemented at many sites. All new buildings such as the branches in Bratislava (Slovakia) or Eschweiler (Germany) are being constructed to deliver climate-neutral operation in our own business operations.

One of the measures Zeppelin relies on to improve its climate performance is an energy management system that meets the ISO 50001 standard, which is continuously being expanded to include additional geographical areas. The recertification took place in 2022 as part of the integrated management system. As part of this process, the energy management system was successfully certified in Germany and the national subsidiaries in Czech Republic, Austria, Poland, Slovakia, Sweden and Denmark.

An external audit also certified Zeppelin's high management system standards in Germany in the areas of environmental management (ISO 14001), occupational health and safety (ISO 45001), and quality management (ISO 9001).

EcoVadis highlighted Zeppelin's commitment in several areas with its Sustainability Rating: Zeppelin Systems GmbH achieved a Gold rating, Zeppelin Sverige AB and Zeppelin Rental GmbH were awarded the Silver Seal, and Zeppelin Baumaschinen GmbH and Zeppelin Österreich GmbH both received Bronze.

OPTIMIZED DATA EVALUATION

Since 2016, the company has recorded non-financial key performance indicators in defined areas such as occupational health and safety, compliance, data protection, energy and environmental management, donations and sponsorship, and employee satisfaction. In order to further optimize data collection and analysis, Zeppelin introduced an innovative software solution for reporting non-financial key performance indicators in 2022. The Group collates annual results and progress, together with goals and measures, in a sustainability report. The report simultaneously sets out the progress made in the context of the UN Global Compact initiative in the areas of human rights, labor standards, environmental and climate change solutions, and the fight against corruption. The report has also been published in English since 2021.

ZEPPELIN'S CONTRIBUTION TO IMPROVING SECURITY OF SUPPLY

The Russian war of aggression against Ukraine triggered an energy crisis, particularly in Europe, and led to massively rising prices and significant supply shortages. In order to be prepared for possible supply bottlenecks and further regulations on gas, Zeppelin has launched a Group-wide energy-saving campaign entitled "Be sustainable. Save sustainable", and a Europe-wide gas emergency plan to make an active contribution to environmental and climate protection and, above all, greater security of supply.

Furthermore, the Group has identified the necessary potential savings and requirements at its European sites in an emergency plan and has already derived concrete measures to continue business activities even in the event of a gas shortage. Thanks to the diverse and innovative portfolio of the Group companies, it can react quickly and flexibly to the current circumstances and find appropriate solutions.

In addition to these Group measures, Zeppelin has made it its mission to make its employees worldwide aware of the careful and economical use of the resources available and the potential for proactive energy savings. As part of the "Be sustainable. Save sustainable" initiative, employees are given specific energy-saving tips for their daily work in the office, in the workshop, in field service and also outside of the workplace, in their own homes or in their free time. According to the data currently available, the campaign has been an impressive success.

CSR CAMPAIGN "SUSTAINABLE PARTNERS. SUSTAINABLE SUCCESS"

With its "Z IDEA" global idea management scheme, the Zeppelin Group encourages its employees to develop and contribute their own ideas. The "Sustainable partners. Sustainable success" campaign focused on sustainable and responsible cooperation with our customers: To what extent can customers implement our products and services as sustainably as possible? How can we make our customers aware of this issue? How can we change and adapt our processes to be an attractive, sustainable, and dependable partner in the long term? The campaign led to us receiving 63 creative ideas, some of which are already being implemented.

SUSTAINABILITY IN PRACTICE AT THE BAUMA 2022 TRADE FAIR

The company is working continuously to expand its existing range of sustainable products and services. Together with our manufacturer partner Caterpillar, we presented a number of new products featuring alternative drives, such as electric motors and fuel cells or hybrid drive systems at the bauma 2022 trade fair. In future,

gas generator sets with hydrogen admixture will also be available for combined heat and power plants. Zeppelin is strongly committed to battery compound production for electromobility, and has set out a clear aspiration to be the best possible partner to help customers implement and safeguard their sustainability goals.

ACT ON CORPORATE DUE DILIGENCE OBLIGATIONS IN SUPPLY CHAINS FOR ADDITIONAL SOCIAL AND ECOLOGICAL STANDARDS

From January 1, 2023, companies with more than 3,000 employees in Germany have been subject to the due diligence obligations set forth in the German Act on Corporate Due Diligence in Supply Chains (Lieferkettensorgfaltspflichtengesetz, LkSG). The new legislation obligates companies like Zeppelin to monitor compliance with minimum social and environmental standards within their own business areas and on the part of their suppliers. The aim is to improve the protection of human rights in global supply chains, to ensure compliance with basic human rights standards such as adequate labor rights and health conditions as well as the prohibition on child and forced labor, and to minimize environmental damage such as water and air pollution.

Zeppelin expects its partners (suppliers, service providers and subcontractors) to contribute to a comprehensive approach that assures responsible activity and the sustainability-focused optimization of products and services.

The associated due diligence obligations include, among other things, the adoption of a declaration of principle, the performance of a risk analysis in the company's own business area as well as in the supply chain, the associated risk management, the establishment of a complaint procedure, preventive and corrective measures in the event of a breach, and documentation and reporting obligations.

SOCIETAL AND SOCIAL RESPONSIBILITY

The Zeppelin Group supports projects and initiatives in the areas of sport, science, education, and culture, and is committed to supporting charitable and humanitarian causes through monetary or in-kind donations. The focus is on funding and projects that reflect Zeppelin's corporate values. With the outbreak of the Ukraine war and the onset of a humanitarian crisis, the Zeppelin Group and its employees worldwide not only showed great compassion and solidarity, but also actively signed up to provide support. Zeppelin has channeled this overwhelming social commitment through a number of targeted initiatives to provide the best possible assistance to colleagues in Ukraine and at other sites.

This included evacuation measures at borders in Poland and Czech Republic, the provision of private accommodation for employees who had fled to Germany as refugees, and financial support. In February 2022, a Ukraine aid fund in the amount of EUR 100,000 was set up to get affected employees and their families out of dangerous areas. Another charitable fund was set up in March 2022 via the "Aktion Deutschland Hilft" alliance, with the aim of organizing aid supplies for affected regions. Our employees' willingness to donate was enormous: Some 266 employees transferred around EUR 36,000 to the internationally active charity. The Zeppelin Group Management Board then topped up the donation amount to EUR 75,000.

Zeppelin also regularly supports "Home from Home", a charity working for a better future for orphans, HIV-positive children and abandoned children in the townships around Cape Town, South Africa. As it has in the past, Zeppelin GmbH this year supported the initiative with the proceeds of sales at the Zeppelin Driver's Bar at the bauma 2022 trade fair. The Management Board more than doubled the sales total of EUR 45,000 and increased it to an outstanding EUR 100,000.

Zeppelin attaches particular importance to supporting young people in the field of research and education. For example, the company supports the JUST! Zeppelin Youth Foundation, which was established jointly by Zeppelin GmbH and Luftschiffbau Zeppelin GmbH in 1990.

The Foundation regularly awards up to EUR 25,000 in sponsorship to recognize outstanding work in the fields of natural sciences and engineering, economics, and social and cultural science. 2021 saw the launch of a new appeal for projects on the topic of "Living and Learning in the Pandemic". The winning projects were honored at the JUST! award ceremony in May 2022. For more information, visit **https://www.just-zeppelin.com.**

Another area of engagement for Zeppelin is in the promotion of sport – above all, team sport. The Group has sponsored VfB Friedrichshafen in volleyball, football and badminton leagues for many years. Zeppelin has also been sponsoring fellow Friedrichshafen residents the "Blisshards" handball club since 2022.

Detailed and further information on the subject of **Corporate Social Responsibility** at Zeppelin is available in the integrated sustainability report / UN Global Compact progress report, and at

https://www.zeppelin.com/de-en/corporate/about-us/about-zeppelin/anlagenbau/

WE ARE ZEPPELIN – ZEPPELIN AS AN EMPLOYER

"NEW WORLDS OF WORK"

In the wake of the COVID-19 pandemic, the flexible combination of office-based and mobile working has become well-established has proven very efficient in those areas of activity which allow it. In order to make spatial adaptations to meet the changing requirements of the new working environment ("new work"), an office concept with short-term workstations, open-space landscapes, desk sharing, project rooms and retreat areas for work requiring higher levels of concentration has already been implemented in several areas at the headquarters in Garching. An internal survey by the Fraunhofer Institute confirmed employees' preference for autonomous and flexible working models. As a result of the effects of the Ukraine war, necessary cost savings and a lack of empirical values due to low capacity utilization during the coronavirus pandemic, the gradual conversion of all remaining areas will only resume in 2023.

PROGRESSIVE DIGITIZATION OF THE WORKING ENVIRONMENT

In Human Resources too, Zeppelin is positioning itself as a highly advanced employer, as it introduces the automation and digitization of work processes to reduce manual procedures and facilitate their integration into processes, including on a mobile basis.

"Workday" was introduced worldwide in 2021 as a standard piece of software that replaces the various individual IT solutions in Human Resources, and which provides employees with a range of services such as a global internal job market and user-friendly self-service functions for amending personal data via a platform. In 2022, the HR system was expanded to include new functionalities in the areas of performance, talent management, learning and remuneration. As part of a global training catalog that can be accessed on any device, from anywhere and at any time via the app, further and advanced training courses can be compiled on a customized basis and e-learning courses can be offered directly in Workday. For selected employees, performance appraisals will now also take place via Workday. In the new talent management and succession planning section, you can create your own talent profile based on your work experience, education and professional interests, and devise individual development plans in cooperation with your manager. This helps ensure that employee potential is optimally utilized and that talented individuals are promoted within the ranks. The "ATOSS" software solution was also introduced in 2022 and ensures simple, transparent and location-independent time recording, mobile working and holiday requests for all employees in Germany.

WE ARE COLORFUL – DIVERSITY, EQUAL OPPORTUNITIES AND APPRECIATION

While we are united by strong shared values, we also draw additional strength from the differences and diversity to be found at Zeppelin. Through the Z COLORFUL

LEADERSHIP PRINCIPLES

initiative, Zeppelin is committed to promoting and appreciating diversity and equal opportunities across the Group, with a variety of campaigns and measures taking place within the Zeppelin Group in 2022 as part of the movement. In addition to stimulating diversity talks and workshops, employees worldwide were able to learn and talk about diversity in various digital presentations, discussion rounds and personal stories on the topic of diversity as part of an "Age diversity and generation management" action day. This was followed by further SBU-specific events and a reverse mentoring program focusing on the passing-on of knowledge and expertise across age groups, exchanging of ideas and learning from one another. The pilot phase of the project started in autumn 2022 and ends in the first quarter of 2023.

The new Z PARENTS program is specifically designed to support women and men before, during and after parental leave with a view to improving work-life balance. With interactive workshops and network meetings on relevant topics such as energy and time management, fitness in everyday life and free advisory services, interested parties can access exchange information based on their needs. Campaigns were run at various sites as part of the Z NOW program, which was launched in 2016 and focuses on the promotion and visibility of female specialists and managers. Our presence at the herCAREER careers fair was another highlight for attracting and introducing female professionals and talented specialists to Zeppelin.

DEVELOPMENT OF NEW LEADERSHIP PRINCIPLES

According to the German Economic Institute, there could be a shortfall of around five million professionals in Germany by 2030. In the face of increasing competition for suitable personnel, employee retention is becoming increasingly important for companies. Motivated by these circumstances, Zeppelin put its previous understanding of leadership to the test in 2021, resulting in the development of the five general leadership principles: Enthusiasm, appreciation, effectiveness, innovation and trust. They serve as the basis for a common understanding of leadership at Zeppelin and are the focal point for a modern and employee-oriented management culture. To get to this point, in 2022 around 1,000 managers worldwide engaged with the topic of leadership in workshops and interactive sessions.

ZEPPELIN AS AN EMPLOYER

For Zeppelin, the promotion and targeted development of all employees is paramount, true to the "Grow with Zeppelin" promise. The Group offers a wide range of career opportunities thanks to the variety of work on offer and its international scope of activity. The cornerstones of HR work are geared towards bringing talent on board, supporting employees, and motivating them to stay with Zeppelin for the long term. In 2022 we further enhanced and advanced tried-and-tested programs and initiatives, such as management development programs, the central Z TALENT platform supporting internal succession planning, and Z NEXT, the customized trainee program for university graduates. New programs on digitization skills and hybrid working have also been successfully put into practice.

Zeppelin not only provides extensive support when it comes to professional development, but also offers opportunities to create a better work-life balance. Alongside flexible working time models, childcare support during vacation periods, and advisory services for employees in difficult personal circumstances, this includes an extensive health and sports program in the context of the Z FIT initiative.

In the "Germany's Best Employer 2022" rankings by Stern magazine, Zeppelin took 23rd place (out of 650 companies) in the overall ratings. Taking 2nd place in the "Machine and Plant Engineering" category and 4th place in the "Rail, Ship and Aircraft Construction" category, Zeppelin significantly improved its position compared to 2021, not only in the overall Stern rating but also in the rankings by industry. "Handelsblatt", initiator of the "Fair Company" rating, again praised the company for doing a particularly good job of fulfilling the expectations and values of young people starting out in their careers and young professionals, in terms of being a fair and attractive employer. The F.A.Z. Institute, which evaluated data from over 1,000 wholesalers for technical and chemical products in its "Germany's Most Sought-After Employers in 2022" study, also ranks Zeppelin as one of "Germany's Most Sought-After Employers" and names the company "Training Champion" of the year.

THE WAR IN UKRAINE

At the start of the war, the top priority was to protect employees and their families in the affected areas. As a foundation-owned company, Zeppelin takes this responsibility very seriously. Irrespective of any performance expectations, Zeppelin continues to pay the salaries of Ukrainian employees in order to safeguard their financial situation in this difficult environment. A fund of over EUR 100,000 has been set up as emergency aid. Zeppelin and its employees donated EUR 75,000 to Ukraine for general assistance and provided electric power generator sets and machines free of charge for various uses.

Around 1,400 employees were employed in Russia at the beginning of the war. These people are not just part of Zeppelin; many share a Western understanding of values and have been subjected to the reprisals of the Russian authorities since the start of the war. The existence, financial survival and personal integrity of these employees also depend on our decisions.

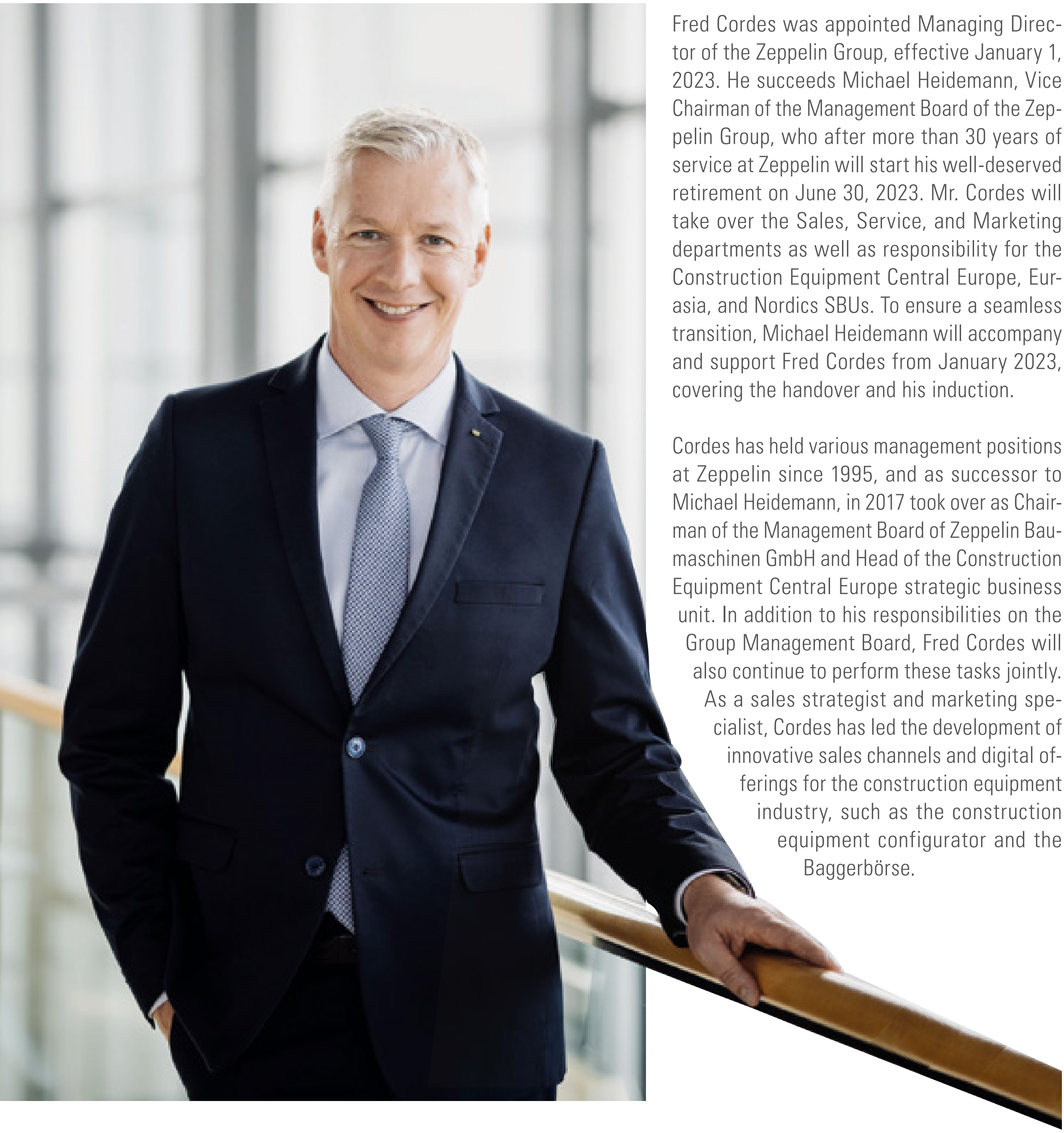
Nevertheless, after the outbreak of war it quickly became clear to the Group Management Board that gradual withdrawal from business activities with Russia is the only viable course at present. In concrete terms, this means that the company no longer supports any of Russia's key strategic industries. We discontinued the delivery of new Caterpillar machines and engines to Russia from the middle of the year in consultation with our manufacturer partner.

Zeppelin is fulfilling its local service and maintenance obligations in Russia in strict compliance with sanctions and in accordance with its contractual obligations to Caterpillar, which is its most important manufacturer partner.

Operational business in Belarus was discontinued in mid-2022.

In Ukraine, business has been continued as far as possible, with the focus on the safety and health of employees and safeguarding their financial situation.

ZEPPELIN GROUP APPOINTS NEW MEMBER OF THE GROUP MANAGEMENT BOARD



Fred Cordes was appointed Managing Director of the Zeppelin Group, effective January 1, 2023. He succeeds Michael Heidemann, Vice Chairman of the Management Board of the Zeppelin Group, who after more than 30 years of service at Zeppelin will start his well-deserved retirement on June 30, 2023. Mr. Cordes will take over the Sales, Service, and Marketing departments as well as responsibility for the Construction Equipment Central Europe, Eurasia, and Nordics SBUs. To ensure a seamless transition, Michael Heidemann will accompany and support Fred Cordes from January 2023, covering the handover and his induction.

Cordes has held various management positions at Zeppelin since 1995, and as successor to Michael Heidemann, in 2017 took over as Chairman of the Management Board of Zeppelin Baumaschinen GmbH and Head of the Construction Equipment Central Europe strategic business unit. In addition to his responsibilities on the Group Management Board, Fred Cordes will also continue to perform these tasks jointly. As a sales strategist and marketing specialist, Cordes has led the development of innovative sales channels and digital offerings for the construction equipment industry, such as the construction equipment configurator and the Baggerbörse.

ORDERS SECURED

KÖSTER GMBH: ZEPPELIN SECURES MAJOR ORDER FOR 139 CAT CONSTRUCTION MACHINES

This is the first time that the Osnabrück-based construction company has awarded a single supplier with the full tender for its construction machine fleet. Zeppelin impressed Köster GmbH with its long-established and positive collaboration, excellent consulting services, and customized solutions. The majority of the Cat fleet is made up of 52 compact Cat 908M wheel loaders, plus four additional representatives, namely 910M models, and two large models in the form of the 950GC. In terms of Cat mini excavators, the fleet is completed by six 301.6 models, ten 305CR models and 14 308CR models in the new machine generation. The fleet also includes Cat mobile excavators such as an M315 and six M318 as well as six Type 313 and 17 Type 326 tracked excavators. Other components of this major order included a Cat D4 track dozer, four D5 models and six CS10GC and ten CS56B compacters.
(Construction Equipment Central Europe)

SWEDISH COMPANY PAN RENTAL VÄST EXPANDS ITS FLEET WITH 37 NEW CAT MACHINES

The Construction Equipment Nordics SBU supplied Swedish company PAN Rental Väst, based in Gothenburg, with 29 new Cat excavators of various sizes, and eight Cat wheel loaders. The total package for the customer includes service agreements, extended warranties and financing, and comes to approximately SEK 61.7 million. Delivery will take place at the beginning of 2023.
(Construction Equipment Nordics)

ARMENIA: EXTENSIVE MACHINE SALES THROUGH CONSTRUCTION EQUIPMENT EURASIA

Zeppelin Armenia also worked very successfully with ML Mining, a major Armenian construction company, in 2022. Zeppelin prevailed over the competitor's comparable offers in the area of trade-in of used machines and financing solutions. Machine sales to ML Mining amounted to a total value of around USD 3.3 million in 2022.
(Construction Equipment Eurasia)

BERLINER MOLKENMARKT SQUARE: ZEPPELIN RENTAL PROVIDES CONSTRUCTION SITE AND TRAFFIC GUIDANCE FOR BERLIN'S LARGEST INNER-CITY ROAD CONSTRUCTION SITE

As part of the redesign of Berlin Molkenmarkt, roads are being laid, modern footpaths and cycle paths are being created and a new building area for residential and commercial buildings is being designated. To maintain the flow of traffic during the four-year construction period, the Zeppelin Rental Center of Excellence for Construction Site and Traffic Guidance is planning, building, and managing traffic guidance for the dynamic construction site on behalf of the construction site manager Strabag AG. The biggest challenge on this large construction site, which encompasses over 20,000 square meters, is the planning of traffic guidance for the four major traffic flows and more than 30 construction phases. For each phase, at least one redesign of the construction site is required. As such, the details for equipment on the construction site also vary. In spring 2022, the site was supplied with 1,800 meters of barrier grilles, 300 meters of transportable protective equipment, 600 meters of construction fence, 500 delineator posts and 6,000 meters of marking film to use for the roads, among other equipment. One important component of traffic guidance is also the traffic light system consisting of over 3,500 meters of cable, 34 temporary masts and 42 signaling devices.
(Rental)

VATTENFALL WÄRME BERLIN AG: ZEPPELIN POWER SYSTEMS EQUIPS BERLIN POWER PLANT SITE WITH STANDBY POWER SUPPLY SYSTEM

Zeppelin Power Systems is equipping the Vattenfall Wärme Berlin AG power plant in Berlin with five Cat 3516E diesel generator sets, each with an output of 2,600 kVA. Designed as a container solution, the generator sets are fitted with Cat 10.5 kV medium-voltage generators. In addition to construction of the plant, Zeppelin Power Systems will also take care of its future maintenance. The corresponding service contract is individually tailored to the needs of Vattenfall Wärme Berlin AG. The benefit of this solution is optimal accessibility to the generator sets and all other components such as switchgear, tanks, pumps, etc. Spatial requirements were the decisive criterion for the client Vattenfall, and the connected machine room requires significantly less space than free-standing containers.
(Power Systems)

TOP PRODUCT QUALITY: MANUFACTURING PLASTICS WITH LARGE-SCALE PLANTS

Zeppelin continuously expands its expertise in the field of polyolefins. In 2022, these endeavors secured a major order for the construction of a large-scale plastics production plant in Abu Dhabi (UAE). The Plant Engineering SBU impressed the customer with customized solutions for maximizing product quality in the pneumatic conveying of polymers. The diversity of plastics and market requirements at play necessitates sophisticated (complete) solutions to ensure excellent product purity in polyolefin production and processing. Zeppelin has extensive expertise in this area, as well as many years of experience along the entire value chain. The company's portfolio ranges from individual components to silo and conveyor systems and turnkey plants.
(Plant Engineering)

bauma 2022 EXCEEDS EXPECTATIONS

Seven days, almost 500,000 visitors and a host of impressive moments: bauma, the world's leading trade fair for construction, building material and mining machinery, construction vehicles and construction equipment, brought together industry experts at the end of October 2022 to explore the innovations and trends of the future. Zeppelin Construction Equipment and Zeppelin Rental were at the event, jointly presenting their products, solutions and services in Hall B6. Zeppelin Power Systems was represented just a few meters away with a stand in Hall A4.

495.000 VISITORS
from 200 countries

1.236
new and used construction machines sold

Sales of EUR
169,000,000
achieved

53 CAT
machines in the exhibition

190 Tours for 3,107 visitors

100.000
euro donation to Home from Home

In total, more than 930 Group employees welcomed the many visitors to the trade fair, answering questions about the latest Cat construction machines, engines, rental solutions and services. It has proved successful: By the end of the fair, Zeppelin Baumaschinen GmbH had sold 1,176 new and used machines, generating sales of 160 million euros including engines, components, and other services. Construction equipment business in Germany, Austria, Czech Republic and Slovakia as well as Armenia contributed to this result.

53 exhibits of all sizes showcased the progress made in the development of construction machines, assistance systems and services for earthworks, civil engineering and road construction, horticulture and landscaping, demolition and recycling, as well as for the building materials and mining industries. In particular, the presentation of 22 new machines highlighted the trends that will shape processes and workflows on the construction sites of the future, make them more efficient and cost-effective, and further digitize construction projects. In addition to alternative drive systems and the "sustainable construction site of the future", automation was another key topic at the stand. Using Cat Command remote control technology, bauma visitors could sit in the driver's seat and control a Cat tracked excavator and tracked tractor far away from the exhibition hall – in Arizona or Spain – in real time using joysticks and monitors.

The Zeppelin Rental SBU was in attendance, showcasing its machinery and equipment rental service together with its temporary infrastructure and building logistics expertise. The contracts concluded at the event covered orders from the rental of machinery and equipment for several infrastructure projects in Germany to construction logistics for supply and disposal in the industrial sector as well as for events. This success can also be seen in the numbers: The order and target volumes were twice as high as those achieved at bauma 2019, reaching in excess of EUR 70 million.

Zeppelin Rental's trade show presence focused on presenting the integrated service portfolio as well as on the topics of digitalization and sustainability. As exhibits, the company displayed products from its sustainable ecoRent program, such as the eSprinter and a tracked scissor-type lifting platform with hybrid drive. One real highlight was the "Rentagon" – five-meter-tall LED media walls on which visitors could impressively experience an interactive and innovative journey through Rental's diverse product and service portfolio. The demonstration of an exoskeleton which will be available for rental from Spring 2023, attracted great interest.

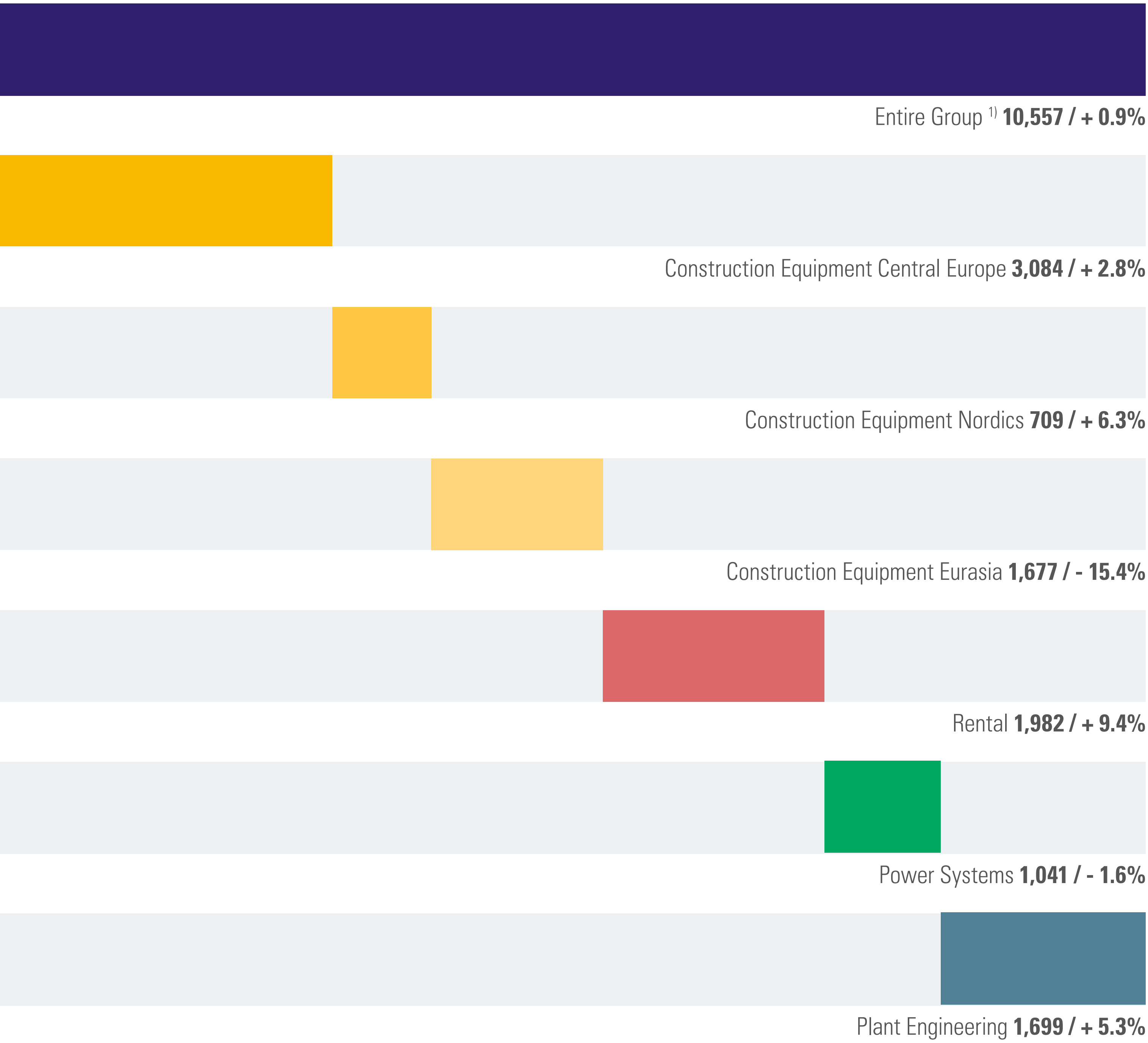
At Zeppelin Power Systems, the focus was on the drive systems of the future construction machine industry. Trade visitors were not only able to find out about the high-performance diesel engine technology of EU emissions standard V, but also the future generation of 48-volt, 300-volt and 600-volt batteries from Caterpillar for the off-highway industry.

As well as a trade fair, bauma is also well-established as a job fair, at which exhibitors such as Zeppelin strive to recruit skilled staff and young talent. For example, the company presented training opportunities and career entry possibilities at the International Congress Center Munich (ICM), and also participated in the "Think Big" initiative and the "Werkstatt live" workshop, during which trainees attached bolts to a Cat wheel loader while interested visitors had the chance to get closer to the material.

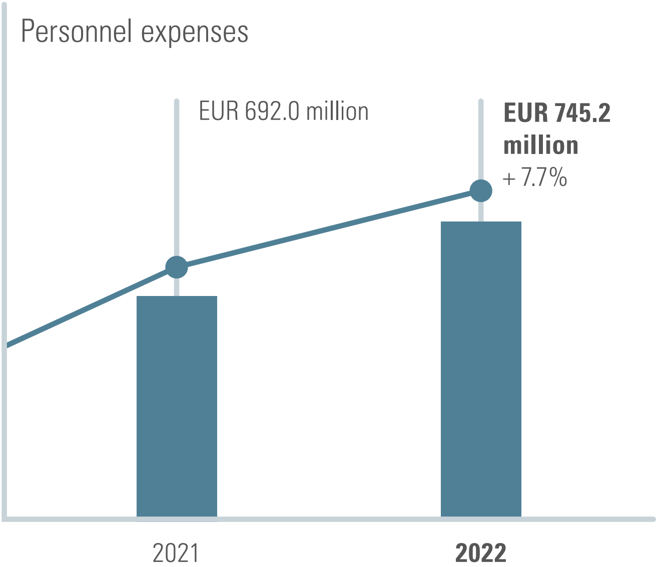
As a foundation-owned company, Zeppelin combines business with social responsibility wherever possible. With that in mind, all proceeds from the Driver's Bar plus those from a raffle of Cat construction machine pictures were donated to the South African Home from Home relief organization, which helps children in need; the Zeppelin Group also made a further donation to take the final amount from around EUR 45,000 to EUR 100,000.

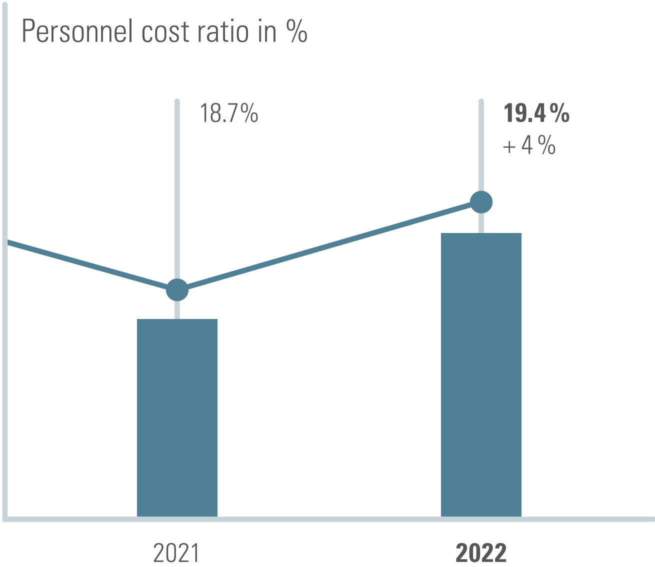
KEY PERSONNEL FIGURES

Employees
year's average, including trainees



Personnel expenses
in millions of euros in accordance with IFRS





Health rate as a percentage

Construction Equipment Central Europe **95.4 / -0.2%**

Construction Equipment Nordics **95.6 / -1.0%**

Construction Equipment Eurasia **97.5 / -0.1%**

Rental **93.9 / -2.6%**

Power Systems **94.8 / -1.8%**

Plant Engineering **95.7 / -1.0%**

Holding **97.1 / -0.7%**

Entire Group [1] **95.5 / -1.0%**

[1] Including employees of the companies Zeppelin GmbH, klickrent GmbH, Zeppelin Lab GmbH and klickparts GmbH; as at December 31, 2022; percentage change compared to December 31, 2021

KEY PERSONNEL FIGURES

Number of employees
by country[2)]

Armenia
135 / + 2%

Belarus
1 / - 98%

Belgium
17 / ± 0%

Brazil
116 / + 21%

China
143 / + 5%

Denmark
317 / + 11%

Germany
.6,046 / + 7%

Estonia
14 / + 17%

France
24 / - 4%

Greenland
10 / + 43%

UK
15 / ± 0%

India
225 / + 9%

Italy
50 / ± 0%

Austria
306 / + 4%

Poland
161 / + 1%

Russia
698 / - 50%

Saudi Arabia
20 / + 5%

Sweden
598 / + 2%

Switzerland
18 / ± 0%

Singapore
14 / + 40%

Slovakia
153 / + 7%

South Korea
4 / + 33%

Tajikistan
12 / + 9%

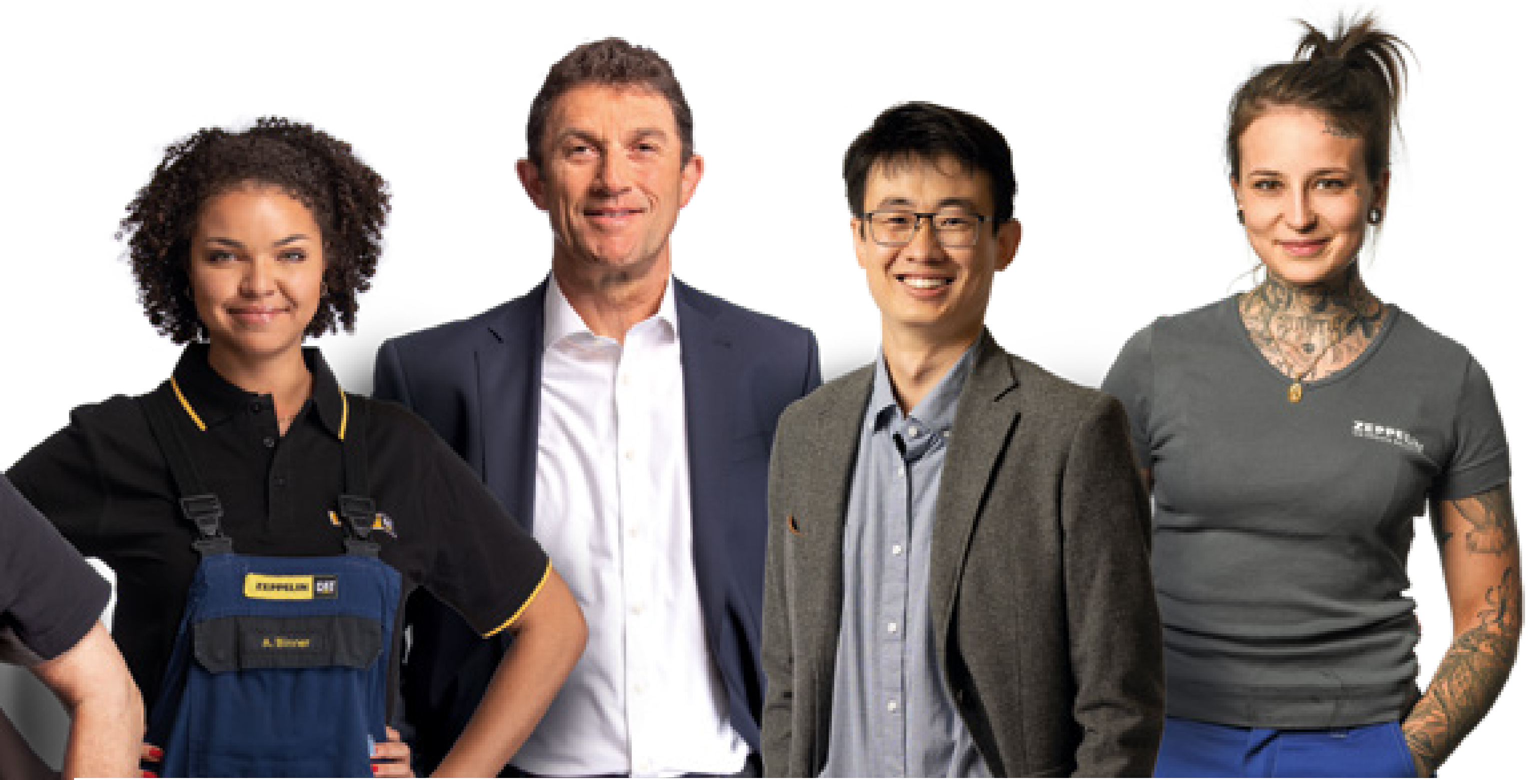
Czech Republic
493 / - 5%

Turkmenistan
21 / + 17%

Ukraine
527 / - 11%

USA
90 / + 3%

Uzbekistan
63 / + 40%



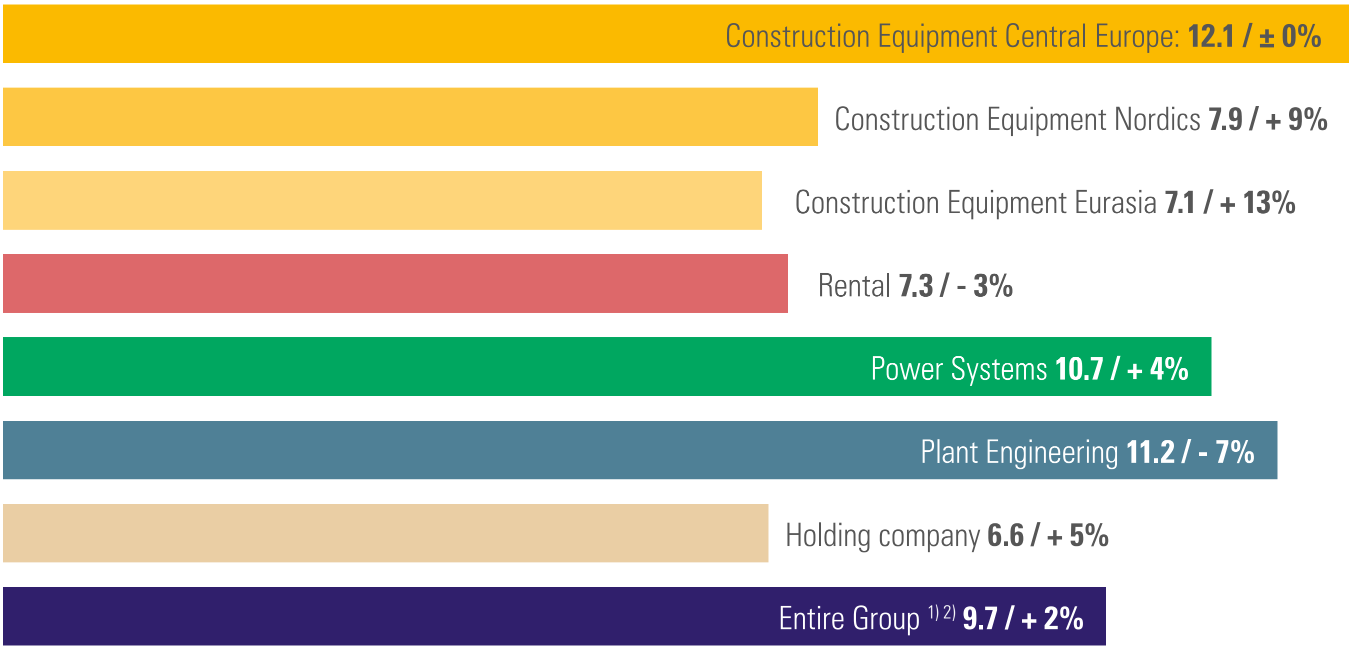
[1] based on headcount, as at December 31, 2022, change from December 31, 2021 as a percentage. For calculation reasons, rounding differences of one unit (€, % etc.) may occur in the tables and charts.

KEY PERSONNEL FIGURES

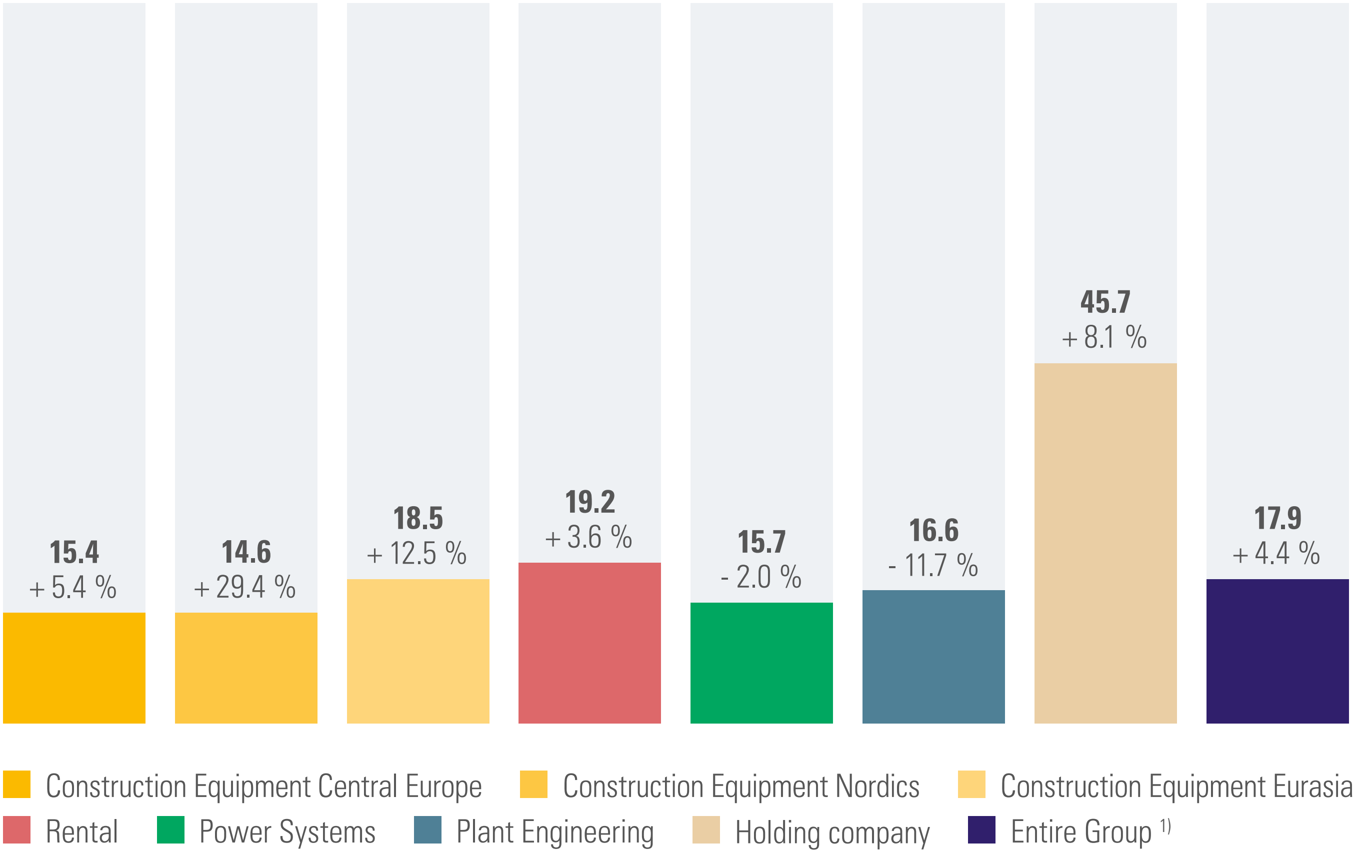
Age structure
as a percentage

	Entire Group 1)	Construction Equipment Central Europe	Construction Equipment Nordics	Construction Equipment Eurasia	Rental	Power Systems	Plant Engineering	Holding company
<= 25 years	6 %	9 %	10 %	3 %	6 %	4 %	5 %	3 %
26-30 years	11 %	12 %	10 %	8 %	10 %	7 %	14 %	13 %
31-35 years	14 %	14 %	12 %	20 %	13 %	13 %	13 %	16 %
36-40 years	16 %	13 %	13 %	28 %	16 %	15 %	15 %	17 %
41-45 years	14 %	11 %	12 %	19 %	15 %	15 %	12 %	16 %
46-50 years	11 %	10 %	14 %	12 %	12 %	12 %	10 %	15 %
51-55 years	11 %	12 %	11 %	5 %	13 %	13 %	12 %	10 %
56-60 years	11 %	13 %	12 %	3 %	11 %	13 %	12 %	9 %
> 60 years	5 %	6 %	7 %	2 %	5 %	7 %	8 %	1 %

Average years of service



Proportion of female employees as a percentage



[1] Including employees of the companies klickrent GmbH, Zeppelin Lab GmbH and Klickparts GmbH; as at December 31, 2022
[2] Percentage change compared with December 31, 2021


CAT
ZEPPELIN
CAT Rental
hier mieten !

GROUP MANAGEMENT REPORT & GROUP FINANCIAL STATEMENTS

CONSOLIDATED MANAGEMENT REPORT

OF ZEPPELIN GMBH AND THE GROUP FOR FINANCIAL YEAR 2022

A BUSINESS ACTIVITIES OF ZEPPELIN GMBH AND THE GROUP

The following management report is the Consolidated Management Report and Group Management Report for Zeppelin GmbH. It presents the business performance of the Zeppelin Group ("Zeppelin" or "Group") and Zeppelin GmbH, including the results for the financial year from January 1 to December 31, 2022 as well as the situation of the Group and Zeppelin GmbH as of December 31, 2022.

The Group Management Report is based on the figures according to IFRS. The section of the report relating specifically to Zeppelin GmbH is based on figures according to the German Commercial Code (HGB).

BUSINESS PURPOSE OF ZEPPELIN GMBH

The purpose of the company is the acquisition, holding and sale of participations in companies which, in particular, focus on the manufacture, processing, sale, rental, servicing and financing of construction machines and site equipment, engines and generator sets of all kinds as well as complementary components and services and of containers and plants for the handling and processing of powdery, granular and liquid materials and related engineering services.

The purpose of the company is also the acquisition, sale, rental and leasing of land and buildings and related transactions.

The shareholding structure of Zeppelin GmbH remained unchanged in the financial year. Luftschiffbau Zeppelin GmbH holds 96.25% and Zeppelin Foundation in administration of the city of Friedrichshafen holds 3.75% of the subscribed capital of Zeppelin GmbH of EUR 100.0 million.

At the end of the year, Zeppelin GmbH had 277 employees (previous year: 267, stated in full-time equivalents). The Supervisory Board consists of 12 members, which is formed on a parity basis in accordance with Section 7 of the German Codetermination Act.

STRATEGIC BUSINESS UNITS OF THE ZEPPELIN GROUP

The Group is operationally and strategically managed in six strategic business units ("SBUs"). This organizational structure ensures its ability to focus on individual markets, customer groups, and product segments while managing activities across multiple countries and companies. The SBUs are divided into Construction Equipment Central Europe ("CE"), Construction Equipment Eurasia, Construction Equipment Nordics, Rental, Power Systems, and Plant Engineering.

The business activities of the Construction Equipment CE, Eurasia and Nordics SBUs comprise the sale and servicing of Caterpillar construction machines, mining equipment, components as well as agricultural and forestry machinery of the AGCO/Fendt and Ponsse brands. In Germany and various countries of Central, Northern and Eastern Europe and Central Asia, Zeppelin is the sales partner of Caterpillar Inc., headquartered in Irving (Texas/USA). The sales territories of the other manufacturer partners are distributed across Central and Eastern European countries. Caterpillar stopped accepting orders for new Caterpillar products for Russia in mid-2022 as a result of Russia's war against Ukraine.

The Power Systems SBU sells Caterpillar diesel and gas engines in the same sales territories as the Construction Equipment SBUs and MaK brand marine engines additionally in many other countries. It provides a wide range of engineering and other services for drive and power solutions. Caterpillar discontinued the new engine business for MaK engines at the beginning of 2023. Zeppelin will continue to provide services for MaK products. The engine business in Russia was for the most part discontinued due to sanctions. In Belarus, the national subsidiary was sold in mid-2022.

The Rental SBU rents out construction machines as well as a wide range of construction equipment, modular room systems, site and traffic guidance systems, work platforms, forklifts and lifts, and vehicles, in particular in Central Europe. A comprehensive range of services is also offered.

The activities of the Plant Engineering business unit involve globally developing, producing, implementing, and selling systems for producing and processing high-quality bulk materials for plastics, rubber and tires, food, and fine chemicals.

RESEARCH AND DEVELOPMENT

The Group's research and development activities relate primarily to the digitalization of new and existing business models, as well as projects in the field of alternative drives at the Power Systems SBU and the Plant Engineering SBU. Research and development costs in the reporting year amount to EUR 2.6 million (previous year: EUR 1.7 million).

B Business Report

1 Economic Conditions

Macroeconomic Environment

The global economy underwent a significant slowdown from the beginning of 2022, in particular due to significantly higher energy prices. These further increased companies' production costs, leading to a progressive pass-through to consumer prices. In addition, Russia's war of aggression on Ukraine contributed to a high level of economic uncertainty. Due to high rates of inflation, many central banks raised their key interest rates. Moreover, the increased numbers of COVID-19 infections in spring 2022 resulted in higher production downtimes, particularly in China. This led to a slowdown in the global economy and new supply bottlenecks.[1]

Thanks to the recovery in private consumer spending from the pandemic, the German economy was initially still growing in the first quarter of 2022. This upturn was dampened by the Russian war of aggression on Ukraine. As a result of the successive reduction of Russian gas supplies, energy prices continued to rise during the summer. This led to a further increase in companies' production costs. Furthermore, higher wholesale energy prices were increasingly passed on to consumers.[2] The government is attempting to mitigate the effects of inflation through subsidies, for example in the form of the electricity and gas price cap.[3] Furthermore, the shortage of skilled workers continues to be seen as a challenge for the German economy.[4]

In August 2022, the US Congress passed the Inflation Reduction Act (IRA), which provides significant subsidies and tax relief for companies that manufacture in the USA. In the EU, there are fears that many European industrial companies could migrate to the other side of the Atlantic.[5]

Russian economic growth has collapsed since the start of the war. This is particularly evident in a massive decline in Russian imports due to the existing economic sanctions. This contrasted with export gains, which increased as a result of rising commodity prices. However, the economic situation is adversely affected in the long term by the sanctions imposed on Russian crude oil and the almost complete cessation of natural gas supplies.[6] International isolation is severely limiting Russia's access to technologies and markets. The shortage of labor in the country is also increasing.[7]

Ukraine is massively economically affected by Russia's war of aggression.[8]

In China, companies' business expectations declined as a result of the continuation of the zero-COVID policy and possible further lockdowns. The ongoing problems in the real estate market also had a negative impact on the economy.[9] With the surprising move away from the zero-COVID policy in December, the number of infections in China skyrocketed, which may lead to production losses again and, as a result, to renewed risks for global supply chains.[10]

The growth forecast for Germany shows a decline to 1.9% (previous year 3.1%).[11] At 3.2%, the growth rate of global economic output in 2022 is almost half the previous year's level (5.9%). At 3.1% (previous year 5.0%), the euro area also records a significant decline. The neighboring countries of Denmark and the Czech Republic also showed a significant reduction in economic output at 2.6% (previous year: 3.8%) and 1.9% (previous year: 3.8%). With 3.8% (previous year 5.1%), a decline is also expected for Poland, albeit somewhat milder. Only Austria is predicting a stable economy activity with 4.7% (previous year: 3.9%). Other European countries such as the Slovak Republic and Sweden joined the general negative trend at 1.8% (previous year: 4.4%) and 2.6% (previous year: 4.0%). At -35% (previous year: 3.5%), the outbreak of war caused Ukraine's anticipated economic output for the current year to dramatically plunge. Russia also recorded a significant economic decline of -3.4% (previous year: 4.7%). The economic output of China and the USA fell more sharply than the worldwide average at 3.2% (previous year: 8.0%) and 1.6% (previous year: 6.0%). The decline was less drastic for Brazil at 2.8% (previous year 5.2%) and India in particular at 6.8% (previous year 9.5%).[12]

In view of massive rises in consumer prices, the European Central Bank (ECB) has significantly raised the key interest rate for the euro area. After being at 0% for years, the key interest rate was raised in several steps and was 2.5% at the end of the year. At 0.5 percentage points, the last interest rate hike was lower than the two previous ones. This was due to the hope that inflation has peaked after falling slightly again in November 2022 for the first time in over a year. Nevertheless, a further increase in the key interest rate is possible. The ECB is linking this to the further development of inflation.[13]

1 Panel of experts: Annual expert report 2022/23, dated November 9, 2022, p. 16.
2 Panel of experts: Annual expert report 2022/23, dated November 9, 2022, p. 47.
3 tagesschau.de: "Winter-Rezession fällt milde aus" [Winter recession turns out to be mild] dated December 14, 2022.
4 tagesschau.de: "Nahles fordert neue Willkommenskultur" [Nahles calls for a new welcome culture] dated December 19, 2022.
5 Deutschlandfunk.de: "Streit um Inflation Reduction Act: Droht ein Handelskrieg?", [Dispute over Inflation Reduction Act: Is a trade war imminent?] dated December 6, 2022.
6 Panel of experts: Annual expert report 2022/23, dated November 9, 2022, p. 32-33.
7 Puls24.at: "Isolation, Inflation, Flucht: Blick in ein Russland im Krieg" [Isolation, inflation, flight: A glimpse into a Russia at war] dated December 21, 2022.
8 br.de: "Kriegsschäden und Wiederaufbau: Was auf die Ukraine zukommt" [War damage and reconstruction: What lies ahead for Ukraine] dated December 15, 2022.
9 Panel of experts: Annual expert report 2022/23, dated November 9, 2022, p. 29.
10 dw.com: "Wird China zum Bremsklotz der globalen Wirtschaft?" [Will China be the brake on the global economy?], dated December 22, 2022.
11 tagesschau.de: "Wirtschaft wächst 2022 um 1,9 Prozent" [Economic growth of 1.9 percent in 2022] dated January 13, 2023.
12 IMF World Economic Outlook Database, October 2022.
13 tagesschau.de: "Warum die Zinserhöhung geringer ausfällt" [Why the interest rate hike is lower] dated December 15, 2022.

The U.S. Federal Reserve (Fed) also massively raised its key interest rate, which at the end of the year was in a range of 4.25% to 4.5% and thus significantly above the key interest rate for the eurozone. However, the result is a significantly lower rate of inflation in the US. For 2023, therefore, only a slight increase in the key interest rate is expected.[14] With its aggressive interest rate policy, the Fed was able to successfully slow down the rise in inflation in the USA. This significantly appreciated the US dollar compared with other currencies, especially the euro. A weak euro is seen as a disadvantage in the current market environment, as it further reinforces inflation in the euro area, among other things.[15]

Since the beginning of 2022, the euro has performed differently compared with other currencies. The main foreign currencies for the Group are the US dollar (USD), the Russian ruble (RUB), the Ukrainian hryvnia (UAH), and the Swedish krona (SEK). The US dollar started 2022 at an exchange rate of 1.13 USD/EUR and ended slightly higher at 1.07 USD/EUR. At the beginning of 2022, the ruble was quoted at 85.30 RUB/EUR and had appreciated to 78.49 RUB/EUR by the end of the year. The Ukrainian hryvnia depreciated from 30.92 UAH/EUR to 39.24 UAH/EUR during the year. The Swedish krona depreciated slightly from 10.25 SEK/EUR to 11.12 SEK/EUR in the same period.

MARKET DEVELOPMENT

The markets that are important for the **Construction Equipment CE SBU** performed as follows in the reporting year: Following the boom in the German construction industry in recent years, the war in Ukraine and the associated further price increases and supply shortages of building materials caused problems for the industry in 2022. Although the order entry rate nominally rose again by 6.9% from January to October, it fell by 7.9% when adjusted for inflation. Construction sales declined by 5.3% in real terms during this period. For the year as a whole, the Hauptverband der Deutschen Bauindustrie e.V. (Confederation of the German Construction Industry) expects a decline in sales of 5% in real terms, and a drop in sales of 6% in real terms for 2023.[16]

The ifo Business Climate Index for trade and industry in Germany fell from 94.7 in December 2021 to 88.6 in December 2022. The climate in the construction industry deteriorated even more: While the ifo Business Climate Index for the construction industry was still clearly positive at the beginning of 2022 at +6.3, the value at the end of the year was -22.2 points. Companies' expectations improved slightly, but remained very pessimistic.[17]

The utilization rate for machinery was on a par with the previous year at 76.0% in December (December 2021: 78.3%). At the end of the year, the average order backlog in the construction sector also remained at a very high level of 4.4 months (December 2021: 4.7 months).[18]

In Austria, the construction industry lost some momentum in 2022 compared with the previous year, but is likely to end the year with a nominal increase due to the sharp rise in prices. The mood among Austrian construction companies is generally positive. The index for the current assessment of the situation, which is determined as part of the WIFO economic test, increased by 2.1 points in December and remains clearly positive at 19.6 points. The expectation index, on the other hand, fell by 2.7 points to an optimistic level of 32.5 points. This high value can be attributed to the continuing high price expectations. With regard to the business situation expectations, however, Austrian construction companies remain skeptical. [19]

The construction industry has also been losing some of its momentum in the Czech Republic. Construction output in November 2022 is down 0.8% year-on-year in real terms and 0.3% lower than in the previous month October. The respective parts of the construction sectors posted almost the same performance. Production in building construction declined by 0.8% year-on-year. Civil engineering production is down 0.9% year-on-year.

In the Slovak Republic, domestic construction output fell in November 2022 for the second month in a row year-on-year (-3.2%). November is also the seventh month of 2022 in which construction work no longer generated the same value at real prices as it did a year ago. Building construction fell by 5.1% year on year, while civil engineering and road construction increased by 9.2% year on year. Overall, construction production fell by 0.4% from January to November 2022 compared with the previous-year period and amounted to a volume of almost EUR 5.7 billion.[20]

The construction equipment industry continues to face a difficult market environment. War, inflation, energy shortages, rising interest rates, still ongoing negative effects of the pandemic and disruptions in international logistics entail considerable market risks. However, there has not yet been a wave of order cancellations for machinery and equipment, and orders backlogs at manufacturers and distributors in some cases extend well into 2023.[21]

The medium-term outlook for the German market is seen as cautiously optimistic, especially since the recovery plans from 2020 continue to run and the major challenges, such as advancing decarbonization and digitalization, bring with them new fields of activity. However, the increased debt in public-sector as a result of the pandemic and the Ukraine war as well as reallocations to other areas

[14] tagesschau.de: "Fed hievt Leitzins weiter nach oben" [Fed raises key interest rate further] dated December 14, 2022.

[15] dw.com: "Warum die Euro-Dollar-Parität so bedeutsam ist" [Why the euro-dollar parity is so important] dated September 5, 2022.

[16] Hauptverband der Deutschen Bauindustrie e.V.: "Baukonjunktur in Zeiten des Kriegs in der Ukraine" [Construction industry in times of war in Ukraine] dated January 9, 2023.

[17] Ifo.de: "ifo Geschäftsklimaindex gestiegen (Dezember 2022)" [Rise on ifo Business Climate Index (December 2022)] dated December 19, 2022.

[18] ifo Economic Outlook December 2022, p. 16.

[19] WIFO Austria Economic Test December 2022.

[20] slovak.statistics.sk: "Construction production in November 2022" dated January 11, 2023.

[21] Zentralverband Deutsches Baugewerbe: "Konjunkturentwicklung im Bauhauptgewerbe in 2022 / 2023" [Economic development in the construction industry in 2022/2023] dated December 6, 2022.

(e.g. defense) are likely to have a dampening effect.

At the end of November, the German market for construction equipment was only slightly below the previous year's level at 36,272 units (-0.4%; Retail: +0.4%, Rental: -2.4%). The compact machines segment (particularly the still very strong mini excavator market) again performed slightly better (+0.2%) than the segment of standard and large machines (-1.8%) and the market for road construction machines (-6.7%). In terms of value, the market volume in the 12-month rolling view increased from December 2021 to November 2022 to almost EUR 3.5 billion due to the increased machine prices (2021: EUR 3.1 billion). As in previous years, the retail/rental split was 72/28 in favor of the retail segment.

Demand for construction machines declined in Austria over the course of the year. In addition to the environment of geopolitical crisis, the reasons for this are the expiry of the government's investment program from 2021 (investment bonus) and planning uncertainty due to sharply fluctuating raw material prices and the poor availability of machinery and parts across the entire market. As of the end of November, the overall market (excluding telehandlers) fell by 8.0% to 2,445 units (previous year: 2,657 units). Due to the high order backlog in the industry with anticipated better delivery capacity, the market is expected to increase slightly in 2023 despite the uncertain market situation (forecast 2023: +3%).

The Czech construction equipment market was stable shortly before the end of the year, albeit with a slightly negative trend. Restrictions in delivery capacity, higher interest rates and geopolitical uncertainties remain a restraining factor and are causing uncertainty. Nevertheless, the overall market in the Czech Republic (excluding telehandlers) is only 0.8% below the previous year's level at 2,602 units (Jan.–Nov. 2021: 2,622 units). No fundamentally changed situation is expected for the Czech construction machine industry in 2023 and a sideways movement of the market is expected (forecast 2023: +/- 0%).

The construction machine economy in the Slovak Republic was extremely positive over the course of 2022. The overall market (excluding telehandlers) rose by 21.2% from January to November 2022 to 857 units (Jan–Nov. 2021: 707 units) and is therefore at a very high level. As in the Czech Republic, the market is expected to move sideways in 2023 (forecast (+/- 0%). Large-scale construction projects financed from EU funds are expected to have a positive impact in the medium term.

Russia's war against Ukraine put a particular strain on the markets of the **Construction Equipment Eurasia SBU** in financial year 2022. Various sectors of the Russian economy are clouded by war expenditure and Western sanctions, including the construction and mining industries. The Ukrainian economy has collapsed massively as a result of the war.[22]

In Ukraine, the mining industry is severely affected by the war. On the one hand, due to the direct regional impact of the war, and on the other, due to the massively damaged infrastructure and energy supply. Large areas of agricultural land are also inaccessible and cannot be agricultured.

The construction industry in Armenia and Central Asia developed positively, as did the construction and mining markets in Central Asia. The main drivers for the growth of the overall market are Uzbekistan and Armenia. The current business development suggests a continued positive trend.

The SBU has implemented comprehensive measures to ensure strict compliance with sanctions against Russia. Processes have been defined and implemented and necessary resources created or expanded in order to check all transactions for compliance with sanctions, including export controls, and to issue approval depending on the result of each check.

Demand for non-sanctioned construction equipment in Russia remains high. In the future, only non-sanctioned new Caterpillar brand SEM machines will be sold to non-sanctioned customers, whereby the product range can be described as severely restricted.

The business in Ukraine continues to be mainly limited to the sale of spare parts and customer services to mining and agricultural customers as well as the sale of a few construction and agricultural machines.

It is still possible to convert Russian and Ukrainian currencies, albeit with certain restrictions. The payment of dividends abroad remains limited and is only possible in rubles on a limited basis in Russia.

The markets of the **Construction Equipment Nordics SBU** in Sweden showed an overall stable to positive performance. At 101.7 at the end of the year, the indicator of the construction sector was lower than in the previous year (December 2021: 107.4). This is mainly attributable to the residential construction sector, which declined due to high material costs and interest rates. A recovery is expected next year in this sector. The construction sector for commercial real estate, on the other hand, performed positively and recovered to a normal level. The mining market has been boosted by historically high copper and iron prices. The total Swedish market for construction and mining equipment is estimated at 5,221 units in 2022 (2021: 4,985 units).

The SBU's Danish markets were characterized by uncertainty. Poor sentiment, indicated by falling employment and sales, is expected to continue into next year. Although the year-end trend was stronger than expected and prices for energy and building materials may have peaked, uncertainty for next year will continue to grow. This was due to the ongoing war in Ukraine, further rising interest rates and upcoming wage negotiations. The total Danish market for construction and mining equipment is estimated at 4,840 units in 2022 (2021: 4,685 units).

According to the latest ERA report, the growth forecast for

[22] There is currently no statistical market data available, as this is kept secret by the government in Russia and is not collected in Ukraine due to the war.

the **Rental SBU's** German business segment is estimated at 2.0% for 2022, compared with 2.1% in June. In the foreign business sectors, the forecast was raised again in November. In the Czech Republic, for example, the forecast was increased from 2.1% to 4.5%. The Austrian business segment is stated to grow by 3.3%and the Nordic countries Sweden and Denmark by 3.2% and 4.6%, respectively. The Slovak Republic's estimated market growth reached 1.9% in 2022. Further catch-up effects due to supply bottlenecks in the Czech construction industry are forecast for 2023 and the ERA expects a growth rate of 5.2%.

According to the latest report by the VDMA, the business climate for the **Power Systems SBU** industry is clearly on the rise again for the first time since 2021. However, it is not yet foreseeable whether this will indicate a trend reversal. Engine manufacturers and suppliers rate both the current situation and the outlook for the coming six months better than in the autumn survey. The war in Ukraine, Caterpillar's limited ability to deliver, and the general shortage of materials continue to dampen the outlook of the Power Systems SBU. The disposal of activities in Belarus also has a negative impact on the performance of the SBU.

The high demand in the industrial segment will not be fully met due to bottlenecks in the supply chain and the associated production delays. In the electric power gas sector, the dependence on the gas supply from Russia is causing unease. Despite the supply chain-related delay in the construction of new data centers, the market in the electric power invest segment continues to grow. In the locomotive engines segment, there is a lack of major series projects in the market. In the marine segment, the entire Russian market is subject to sanctions. The oil & gas market is boosted by the high gas price. Companies are identifying new markets for themselves due to the sanctions on the Russian market. There is increasing movement in the marine market, supported by military and government projects as well as investments in tourism shipping (inland waterway transport and yacht building). The market volume of ballast water treatment systems is at its peak; a declining volume is expected in the medium term.

The **Plant Engineering SBU** records a positive to stable growth in its EU, USA, and China markets in 2022. The crisis situations that persist in several areas and the resulting global inflation drivers are leading to different developments in the worldwide market. While the important Russian market has collapsed, Chinese order entries remain stable at a high level. The important USA market is also expected to gain considerable momentum again due to politically motivated subsidies. At the same time, it can be forecast that the behavior of European industries will depend significantly on energy price developments. Order entry in the SBU had calmed down somewhat in the last quarter compared to the course of the year. Large orders did not come in as expected, especially in the petrochemical sectors. Furthermore, orders in the food business also fell significantly short of potential.

2 Development of the Group's Business

Key Performance Figures for the Group

EUR million	2022	2021
Sales	3,838.2	3,695.6
Gross margin[23]	14.7 %	14.4 %
EBT	134.6	159.5
Return on sales[24]	3.5 %	4.3 %
Return on capital employed, YE[25]	6.2 %	8.0 %

Sales Development and Orders

Financial year 2022 was successful overall for Zeppelin. This was despite the currently difficult underlying conditions, which were characterized by energy bottlenecks, limited availability of machines and engines, disrupted supply chains and high inflation as a result of the war in Ukraine, as well as some COVID-19 effects, which are still present in some cases. Group sales rose by 3.9% to EUR 3,838.2 million (previous year: EUR 3,695.6 million).

Sales generated by the SBUs dedicated to the rental, sales and servicing of construction and mining equipment and engines increased in financial year 2022 by EUR 0.1 million. This stagnation is largely due to the war-related decline in sales in the Construction Equipment Eurasia SBU (-18.2%), which could be offset in particular by increases in the Rental SBU (+15.7%). In addition, sales in the Plant Engineering SBU post strong growth.

[23] Gross margin = gross profit on sales / sales
[24] Return on sales = profit before tax / sales

[25] ROCE = EBIT / capital employed;
capital employed = fixed assets + working capital

Sales by SBU

EUR million	2022	2021	Change %
Construction Equipment CE	1,516.4	1,494.2	1.5 %
Construction Equipment Nordics	291.8	292.4	-0.2 %
Construction Equipment Eurasia	525.2	642.4	-18.2 %
Rental	666.3	576.1	15.7 %
Power Systems	442.4	436.9	1.3 %
Plant Engineering	493.2	339.9	45.1 %
Group sales[26]	**3,838.2**	**3,695.6**	**3.9 %**

In financial year 2022, a total of 18,419 machines, forklifts and engines were brought to market, corresponding to a decrease of 7.9% year-on-year. While sales of new construction and mining equipment decreased by 1,673 units (-18.0%), sales of new forklifts and engines grew by 60 units (+30.2%) and 109 units (+3.1%), respectively. Sales of used construction and mining equipment and engines also declined by 200 units (-4.1%) and 35 units (-46.1%), respectively, compared with the previous year. At 1,726 units, the machines and forklifts brought to market for the first time for rental purposes were above the previous year's level (1,500 units).

Order entry of all Group companies decreased significantly to EUR 4,019.8 million (previous year: EUR 4,508.6 million) due to a significant decline of order entry in the Construction Equipment Eurasia SBU. At EUR 1,950.6 million at year-end, the order backlog was above the previous year (EUR 1,768.9 million). The Plant Engineering SBU accounted for EUR 613.9 million (previous year: EUR 550.5 million).

Employees and Employee Development

Changes to the number of employees in the Group as of the reporting date, broken down by SBU, are presented below:

	12/31/2022	12/31/2021	Change %
Construction Equipment CE	2,852	2,811	1.5 %
Construction Equipment Nordics	713	691	3.3 %
Construction Equipment Eurasia	1,353	2,032	-33.4 %
Rental	1,997	1,802	10.8 %
Power Systems	956	1,049	-8.9 %
Plant Engineering	1,791	1,586	12.9 %
Trainees in the Group	376	361	4.2 %
Group[27]	**10,417**	**10,673**	**-2.4 %**

At the end of 2022, the foreign companies of the Group had 4,212 (FTE) employees (previous year: 4,898), corresponding to 40.5% of the overall workforce (previous year: 45.9%).

Information about the Proportion of Women

In accordance with the "Equal Participation of Women and Men in Leadership Positions in the Private and Public Sector Act", in 2018 Zeppelin GmbH set targets for increasing the proportion of women on the Supervisory Board, on the Management Board and at the senior management level.

As of the reporting date of December 31, 2022, a proportion of women of 33.3% was achieved for the Supervisory Board, 25% for the Management Board and 35.3% for the first management level and 36.8% for the second management level below the Management Board.

Based on the proportion of women achieved and in accordance with the amended legal requirements (Law supplementing and amending the regulations for equal participation of women in management positions in the private and public sector (Second Management Positions Act – FüPoG II)), as well as our own personnel policy objectives for gender balance, the Supervisory Board adopted a corresponding adjustment to the proportion of women on the Supervisory Board and the Management Board, as well as management for the two management levels below the Management Board of Zeppelin GmbH, at the meeting on March 24, 2022.

A target of 33% was adopted for the proportion of women on the Supervisory Board, 25% for the Management Board and 30% for the first management level below the Management Board and 36% for the second management level below the Management Board. These target figures already apply to financial year 2022 and must be achieved

[26] Including Zeppelin GmbH, klickrent GmbH, Z Lab GmbH and Klickparts GmbH, as well as consolidation effects.

[27] Including Zeppelin GmbH, klickrent GmbH, Z Lab GmbH and Klickparts GmbH.

by March 31, 2027.

3 Important Activities During the Financial Year

Russia's war against Ukraine

On February 24, 2022, Russia's army marched into Ukraine. Since then, the two countries have been engaged in a fierce armed conflict. Belarus is also indirectly involved in the war, partly because Russian troops entered Ukraine via Belarusian territory. The military action has led to many human victims, large flows of refugees within and out of Ukraine, extensive destruction of infrastructure in the east and south of Ukraine, and actually brought Ukrainian economic activity to a standstill. The United States, the European Union, Switzerland, the United Kingdom and other Western states imposed numerous and extensive sanctions against Russia and Belarus in response to the armed acts. The sanction measures affect Zeppelin's business in these two countries to a large extent. The other key operations of the Construction Equipment Eurasia SBU described in the following section are direct consequences of the Russia-Ukraine war.

Disposal of Belarus (ZWR)

As all Zeppelin International AG products in Belarus were sanctioned from June 4 and business was therefore no longer possible there, the Construction Equipment Eurasia SBU sold the company Zeppelin Belarus to an external investor with effect from July 29, 2022. However, Zeppelin will continue to have a representative office in Belarus. Further information on this can be found in the other key operations of the Construction Equipment Eurasia SBU in the section below.

ERP Project of the Zeppelin Group

Due to the complexity and associated technical limitations, the decision was made in spring 2022 not to continue the current upgrade project for the SAP ERP system to S4 in use at Zeppelin Austria and probably not to carry out a further roll-out of this ERP system. The ERP system will continue to be used by Zeppelin Austria and the corresponding maintenance and further development will be ensured by Zeppelin Digit. Zeppelin Digit is responsible for cross-SBU topics in the areas of IT, digitalization, and innovation.

In return, the new development of a cross-SBU ERP template based on the current SAP technology platform S4 was initiated. To this end, a joint project was launched involving the Power Systems SBUs and the national subsidiaries in Sweden and Denmark, as well as the active involvement of the Construction Equipment CE SBU.

This project to develop and implement the system landscape, and the associated costs are planned, controlled and monitored centrally at Group level by Zeppelin GmbH. Corresponding framework agreements were concluded with the participating companies, which cover, among other things, the allocation of license and implementation costs.

The concept phase for the new ERP template is expected to be completed in the first quarter of 2023 and an initial go-live is planned for 2024.

COVID-19 Pandemic

The COVID-19 pandemic continued to affect the company in 2022, with the situation significantly easing over the course of the year.

Based on experiences since the start of the pandemic, the COVID-19 crisis management team was able to act very effectively and gradually withdraw the measures as the pandemic situation eased. The health of the workforce and business partners was protected at all times.

Acquisition of a Majority Stake in Magdalena Kitzmann GmbH

The Plant Engineering SBU expanded its expertise in the field of performance materials with the acquisition of a majority share in Magdalena KITZMANN GmbH, Lengerich on January 1, 2022 by Zeppelin Systems GmbH. As a specialist for customized and process-reliable complete systems, Magdalena KITZMANN GmbH has stood for reproducibility, functional reliability and operational reliability for almost 50 years. The 360° range of services includes engineering, commissioning of individual components, and the production of turnkey plants for liquid or solid materials handling. Companies from the plastics industry, the chemicals industry and the food industry regularly benefit from the individual process engineering systems. Despite the acquisition of the majority share by Zeppelin Systems GmbH, Magdalena KITZMANN GmbH will remain as an independent company and will continue to be jointly managed by the previous management. Previously active primarily in the German and adjacent European markets, Zeppelin Systems GmbH gives the company the backing it needs for global growth.

Corporate Social Responsibility (CSR)

At the beginning of 2022, Zeppelin dedicated an action week to the topic of CSR for the first time. In addition to several interactive activities for employees, the importance of CSR for Zeppelin as a foundation-owned company, the concrete sustainability goals, and the measures for achieving the goals were presented and explained in presentations and discussion rounds. In addition, the focus of the campaign week was also on sustainable products and services from Caterpillar and Zeppelin.

Sustainability was given an even stronger focus throughout the Zeppelin Group and CSR activities were further expanded: In addition to further anchoring the CSR organization within the SBUs, an innovative CSR reporting tool was introduced and rolled out worldwide so that data collection and evaluation could be optimized.

To tap new potential and involve all employees, the Z IDEA campaign "Sustainable partners. Sustainable success" was launched, with over 60 ideas submitted to promote sustainable and resource-saving cooperation with our customers.

To achieve CO_2 neutrality in our own business operations and successively reduce energy consumption, Zeppelin is investing in the use of renewable energies, the switch to efficient technologies, and the energy-efficient refurbishment of existing properties. A comprehensive modernization concept was adopted already in 2021, in which all property locations will be generally renovated and largely uniformly designed by 2030. Implementation of the concept began in 2022 and the measures were launched at the Villach (Austria), Ulm, Freiburg and Rendsburg sites. In addition, the expansion of e-charging infrastructure to promote electric mobility was further promoted in 2022, and 45 sites in Germany alone were equipped with e-charging stations. In the realization of new buildings, all sustainability issues are addressed right from the start of the project and the buildings are geared towards carbon-neutral operations, as has already been implemented at the new site in Bratislava (Slovak Republic).

With the Group-wide energy-saving campaign "Be Sustainable. Save sustainable" launched in spring 2022, Zeppelin was able to make an active contribution to saving energy and thus to increasing security of supply in winter 2022/2023. At the same time, employees were successfully made aware of the careful and economical use of the available resources and proactive energy saving.

Acting together responsibly, ethically, and lawfully – this also applies to partners, suppliers, and service providers of the Zeppelin Group. To make the cooperation even more sustainable, a project team consisting of the Legal, Purchasing and CSR departments worked on the further development and expansion of internal processes, such as for the risk analysis of suppliers, the anchoring of preventive measures and the creation of remedial measures in the event of identified legal violations by suppliers. Zeppelin thus prepared itself adequately for the provisions of the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtengesetz), which become mandatory for Zeppelin from January 1, 2023.

The Zeppelin Group also assumes responsibility in the area of corporate social responsibility and supported a large number of social, cultural, and sporting organizations and institutions in Germany and abroad in 2022. One big campaign was the EUR 100,000 aid fund for Ukraine to get employees and their families in need out of the danger zone. For many years now, the Zeppelin Group has regularly supported Zeppelin University in Friedrichshafen, which was founded in 2003, and many other initiatives such as the aid organization "Home from Home".

In 2022, the Zeppelin Group published its third Sustainability Report. This report also documents the progress made as part of the UN Global Compact membership. The report is based on the internationally applicable standard of the Global Reporting Initiative (GRI) and underlines Zeppelin's commitment to CSR. The report is available in German and English on the Zeppelin website (https://www.zeppelin.com/de-de/ueber-uns/verantwortung/nachhaltigkeit/).

DIVERSITY

To underline the increasing importance of diversity, the Z COLOURFUL initiative was launched, which deals with the inclusion of diversity and equal opportunities, and as such not only represents an adaptation to a changed working world, but also highlights diversity as a critical factor for success: diverse teams help to reflect better, act more creatively, and make smarter decisions. The integration of diverse talents also helps to counteract the shortage of skilled workers and is an important employer branding pillar for Zeppelin.

A fundamental milestone in this regard was the announcement of the signing of the Diversity Charter by the Group Management Board. In addition, Zeppelin is a founding partner of Employers for Equality, a program of PANDA GmbH for Gender, Equality & Diversity in companies that promotes equality and actively advances progress in business and society.

In 2022, there were once again many campaigns and measures relating to inclusion & diversity and existing initiatives, such as the diversity ambassadors. Management training on unconscious biases was conducted in order to anchor the topic even more deeply into the management culture. In addition, a reverse mentoring program was launched with the aim of (even) more strongly promoting mutual learning across hierarchical, age and area levels. In the area of gender diversity, the organization has dealt intensively with the target of a 20% proportion of women by 2025 in relation to the overall workforce and has initiated corresponding measures, which are now being reviewed on a regular basis.

WORKDAY

Zeppelin launched the global introduction of the Workday HR software in October 2020. The first project phase went live at the end of 2021 with the modules HCM Core, Recruiting and Compensation (Part 1). For the first time, all basic HR data is now available in central software across all Group companies. Additional remuneration data and further remuneration processes were introduced in 2022. In addition, Workday was successfully expanded in a second project phase in 2022 to include some HR development topics. From January 2023, performance processes, such as the employee appraisal and target agreements, can for the first time be carried out uniformly in large parts of the Group with the help of Workday. The existing talent management process and succession planning will also be implemented. The go-live in November 2022 made available a Group-wide learning platform that allows employee development to be mapped within a system and other software to be phased out in the near term. The introduction of Workday harmonizes many HR processes and thus makes a decisive contribution to the digitalization of HR. Managers and employee development can initiate many processes independently and have transparency over the data. With Workday, Zeppelin achieves Group-wide automated and harmonized HR reporting in real time for the first time.

NEW HEAD OFFICE IN GOTHENBURG

In Gothenburg, Sweden, a new head office is being built for the local company. The headquarters are Zeppelin's first major new real estate construction project in the Nordic countries after taking over regional responsibility in 2020. The project comprises an office building for up to 180 employees, a regional warehouse and, above all, a modern workshop with efficient workstations for Construction Equipment, Power Systems and Rental, all working together in a flexible environment. The site covers an area of 31,000 m² and is located in the first row of Landvetter Airport Logistics Park, right next to the airport, on the main road and not far from Gothenburg's second largest port. The outdoor facility comprises 16,000 square meters of usable space with a separate cold storage facility, a modern washing facility with water recycling system, a rental hub for easy check-in and check-out, and a customized calibration and test area for demonstrating and testing machines. The new headquarters will be an important landmark for Zeppelin and CAT's presence in Sweden. The site is scheduled to open in 2024.

OTHER IMPORTANT EVENTS FOR THE SBUS

In financial year 2022, two important trade fairs for the **Construction Equipment CE SBU** took place, namely bauma and GaLaBau. As the world's leading trade fair for construction machinery, bauma attracted a large number of visitors, which Zeppelin was able to turn to its advantage by selling 1,236 new and used machines. Together with engines, components, and other services, sales of EUR 169 million were achieved. Zeppelin Product Management also organized 190 guided tours with over 3,100 participants via the trade fair stand. Automation was a major trend. The GaLaBau trade fair in Nuremberg also impressed with a high number of regional and supra-regional visitors under the motto "Together climate fit for the future". There was a wide range of Caterpillar mini excavators on display in conjunction with a Caterpillar compact and wheel loader as well as a Caterpillar tandem vibratory roller.

At bauma, the company presented four battery-powered machines from Caterpillar as product innovation. The machines have batteries developed by Caterpillar and an integrated on-board charger. An offboard quick charge option will also be available. Building on proven Caterpillar technology, the lithium-ion battery range features a modular design that offers flexible configurations for multiple applications. The batteries are engineered to adapt to customers' performance requirements and maximize sustainability throughout their lifecycle, including end-of-life recycling and reuse.

In the area of fleet management, Zeppelin Service introduced a dashboard that customers can use to request a wide range of information from their Caterpillar construction equipment. The service platform is already being used by numerous customers. It is the third digital component that supplements the existing online customer portal and fleet management. Already today, the Caterpillar Vision Link application makes it possible to analyze machine data such as fuel consumption or idling percentage as part of telematics data, and to obtain a lot of other important information about machine use at any time on all common end devices. The service platform is based on fleet management, which focuses primarily on machine operation. However, the platform offers users more convenience and additional information in the area of machine maintenance. Caterpillar also presented two new user-friendly assistance systems for the next generation of three mini hydraulic excavators. Newly launched construction machines are equipped with various assistance systems as factory standard.

One of the major new launches in 2022 was the Zeppelin Cat online shop, which offers customers another digital option for purchasing the necessary equipment for their construction sites. A selection of compact Caterpillar construction machines such as mini-excavators and rollers, as well as suitable attachments, are available for purchase online. In the online shop, customers benefit from both a comprehensive product presentation and a simple purchase process.

In terms of digitalization, various new developments took place in the reporting year. A service program for systemic mapping of the ordering process standardizes communication between sales and service and supports the scheduling of machines/components and service technicians. The processes between service and sales in the branch offices will thus become more uniform and efficient. In addition, a product information management system has been introduced, which stores all product-related information and documents centrally in a database. The output channels (website, Zeppelin Cat Shop, online configurator, etc.) receive the product data from the product information management system, which ensures that the data is uniform and transparent. The effort required for data maintenance is also significantly reduced. In addition, the introduction of the Concur travel booking and travel expense accounting tool has digitalized and simplified the entire travel process at individual Group companies.

In July 2021, construction work began on the new building in Eschweiler for the Zeppelin Baumaschinen GmbH branch and the new Zeppelin Rental GmbH rental store. With this site, Zeppelin is establishing the first greenhouse gas-neutral branch and rental store in Germany. The groundbreaking ceremony for the new building that meets KfW Energy Efficiency Standard 55, which was postponed due to the COVID-19 pandemic, took place in May 2022. Eliminating fossil fuels is a key contribution to achieving the company's 2030 goal of becoming a carbon-neutral company in ongoing business operations. The new branch for the Zeppelin SK s.r.o. team was opened on May 27, 2022 near the capital Bratislava. The branch has excellent transport links between Bratislava and Trnava and covers a total area of 14,400 m². This new building was also constructed in accordance with the Group's sustainability standards and can be operated in a climate-neutral manner in the future. By using rainwater, fresh water consumption can be significantly reduced. In the Czech Republic, a new Cat spare parts warehouse for the Czech Republic, the Slovak Republic, and Austria was built to expand the service area. The new logistics center in Ostředek (near Prague) is located immediately next to the motorway. The aim is to deliver common spare parts within 24 hours of a customer's order in these three countries.

Due to the decline in demand for the overhaul of underground mining machinery, the production and repair plant in Ostrava-Radvanice was sold to VP BASTRO s.r.o. The mining business at Zeppelin will continue, as will technical support.

The **Construction Equipment Nordics SBU** successfully launched the "Safely home every day" project to enhance safety measures and the relevant key safety indicators. The project also aims to make safety issues more visible and raise the general awareness of everyone in the company. The construction project for the new head office in Gothenburg, Sweden, has entered the next phase. The foundation stone was laid in November 2022. The project is still on schedule. To prepare for the replacement of the current ERP system, the Construction Equipment Nordics SBU, in cooperation with the Power Systems SBU and Zeppelin Digit, has started the exploration phase for the new ERP system for the national companies in Sweden and Denmark.

As Western sanctions prohibit the sale of most mining products and services in Russia and many Russian mining customers are also on sanctions lists, the operation of the mining business in Russia is only possible to a very limited extent. The **Construction Equipment Eurasia SBU** has therefore almost completely wound down its workforce in the mining division and closed most mining sites.

The sale of new Caterpillar machines in Russia was discontinued in late summer 2022. After the SBU has sold off the existing CAT inventory machines and the ordered machines in delivery, CAT equipment will no longer be sold in Russia. In addition to various agricultural equipment, the SBU will therefore only be able to sell machines from the Chinese Caterpillar brand SEM to non-sanctioned customers in Russia.

Most engines and gensets that are sold and serviced in Russia via the company Zeppelin Power Systems Russia OOO are also sanctioned. The future business volume with these Power Systems products is therefore massively restricted. The rest of the business will therefore be integrated into Zeppelin Russia OOO. Once the distributable dividend has been paid out in full, a decision will be made on the liquidation of Zeppelin Power Systems Russia OOO.

The **Rental SBU** secures top awards in the industry in financial year 2022. The European Rental Association awarded Zeppelin Rental GmbH the "Large Rental Company of the Year" award for the second time. Zeppelin Rental GmbH also received gold in Caterpillar's Rental Services Excellence Program. Zeppelin Rental Österreich GmbH & Co. KG was for the sixth time in a row voted first place by readers of the Austrian magazine "Solid" in the "Construction Logistics and Rental" category.

In October, Zeppelin Rental GmbH had a successful trade fair appearance at bauma 2022 in cooperation with Zeppelin Baumaschinen GmbH.

Furthermore, Fehmarnbelt Solution Services A/S was liquidated in 2022, in which Zeppelin Rental GmbH held all shares. After the business activities of the Czech company Meton s.r.o. were incorporated into the construction site and traffic guidance division of Zeppelin CZ s.r.o., the liquidation process of Meton s.r.o. was started in 2022, and finally completed in January 2023.

New rental stores have been opened in Sweden and Denmark to expand the rental business. For example, in Denmark the rental store in Rødby was officially opened to pursue the growing business of the Fehmarn construction project. In Sweden, the number of rental stores has been extended to five with three new openings in Ringön (Gothenburg), Eslöv (Malmö), and Årsta (Stockholm). As part of its ambitious growth strategy, the SBU is working on acquisition projects together with the Danish national company.

In the course of the corporate restructuring of Luther HL GmbH & Co. KG and Meton GmbH in 2021, the "lane change" project to optimize the area of construction site and traffic safety was launched. Strategy development and implementation as part of this project progressed in 2022.

On May 1, 2022, another member was added to the Management Board of Zeppelin Rental GmbH with the Head of Human Resources, thus increasing the Management Board to five members.

For the **Power Systems SBU**, 2022 was characterized by the war in Ukraine, disrupted supply chains and dynamic price developments. International business was severely affected by the current sanctions situation in Russia and Belarus. The Strategic Business Unit therefore completely withdrew from its operations in Belarus in the middle of the year. The business in Russia is largely sanctioned and will be integrated into Zeppelin Russia OOO. Long delivery times and limited material availability caused by supply chain problems led to bottlenecks in almost all twelve Power Systems countries when ordering engines and spare parts – positively accompanied by an unbroken high demand for our products.

In addition to the core business of Caterpillar new engine sales and the service activities for Caterpillar and MaK engines, the focus in 2022 was again on the expansion of digital business models, alternative drives and fuels, and the further establishment in the large-scale project business. The company worked harder to explore possible options for system integration and marketing of heat pumps. In the fuel cells segment, the PEM (proton exchange membrane) and SOFC (solid oxide fuel cells) projects were driven forward. Power Systems also invested in the use of fuel cells in maritime applications and plans to develop prototypes in the future.

In 2022, the SAP project was launched in an international approach together with the Construction Equipment Nordics SBU and Zeppelin Digit. The Explore phase is currently taking place as part of joint workshops with project members from the Construction Equipment Nordics and Power Systems SBUs and Zeppelin Digit.

For the **Plant Engineering SBU**, Russia's war against Ukraine led to a consistent delivery stop due to sanctions provisions for a major project with a Russian customer, with the consequence of significant production loss and financial burdens.

The merger of the two Italian subsidiaries Zeppelin Systems Italy S.r.l. and Nuova Ciba S.p.A., which was already decided and prepared in 2021, was completed on June 30, 2022. The subsequent integration phase will be completed in 2023.

The recycling product area will be an important strategic pillar within the Plant Engineering SBU in the future. The division set up specifically for this purpose has already been staffed and is expected to gain in importance both in Zeppelin Systems GmbH and in the international network due to attractive market expectations.

In the fourth quarter of 2022, Zeppelin Systems GmbH was awarded the contract for a strategically important large-scale project, the scope of which includes both the conveyor system portion and a large silo package, and will thus make a significant contribution to capacity utilization and securing earnings.

4 Results of Operations, Financial Position, and Net Assets of the Group

Results of Operations

The condensed consolidated statement of profit and loss as of the reporting date is as follows:

EUR million	2022	2021	Change	Change %
Sales	3,838.2	3,695.6	142.6	3.9 %
Cost of Sales	-3,274.7	-3,162.8	-111.9	3.5 %
Gross profit on sales	563.4	532.8	30.6	5.7 %
Selling expenses and general administrative expenses[28]	-444.5	-385.0	-59.5	15.5 %
Other income and expenses[29]	24.7	21.5	3.2	14.7 %
Profit before net financial result	143.6	169.3	-25.7	-15.2 %
Net financial result	-8.9	-9.8	0.9	-8.7 %
Net profit before tax	134.6	159.5	-24.9	-15.6 %
Income taxes	-30.3	-41.5	11.2	-27.1 %
Net profit after tax[30]	104.4	118.0	-13.6	-11.6 %

Business performance was positive overall. Despite the adverse geopolitical and global economic situation, Group sales increased by 3.9% compared with the previous year (EUR 3,838.2 million; previous year: EUR 3,695.6 million)

EUR million	2022	2021	Change %
Cost of materials	-2,583.6	-2,527.0	2.2 %
Personnel expenses	-454.7	-426.9	6.5 %
Depreciation	-71.3	-72.8	-2.1 %
Other expenses	-165.2	-136.1	21.4 %
Group cost of sales	**-3,274.7**	**-3,162.8**	**3.5 %**

In the same period, cost of sales increased almost correspondingly by 3.5% to EUR 3,274.7 million. The increase was due in particular to the increased cost of materials and higher personnel expenses. Gross profit on sales rose by 5.7% to EUR 563.4 million. The gross margin of 14.7% was slightly above the previous year (14.4%).

At EUR 444.5 million, selling and general administrative expenses were EUR 59.5 million higher than in the previous year. The increase was due in particular to charges and risk provisions in connection with Russia's war against Ukraine and its consequences, higher advertising costs due to bauma and an increase in personnel costs.

At EUR 24.7 million, the balance of other income and expenses was above the previous year's level (EUR 21.5 million). This was mainly due to higher handling margins for newly concluded SLB transactions, higher cost reimbursements from Caterpillar for bauma, and stronger currency fluctuations in the Russian ruble, Ukrainian hryvnia, and US dollar.

At EUR -8.9 million, the net financial result improved slightly year-on-year (previous year: EUR -9.8 million). While the interest result deteriorated by EUR 1.5 million due to the rise in interest rates (EUR -14.5 million; previous year: EUR -13.0 million), other financial result increased by EUR 2.4 million (EUR 5.6 million; previous year: EUR 3.2 million). The latter was mainly attributable to the fair value of interest rate derivatives that are not included in hedge accounting.

[28] Including research and development expenses.
[29] Including impairments on financial instruments and contract assets (net) as well as the result from companies accounted for using the equity method.
[30] Including non-controlling interests.

Changes to net profit before tax for the financial year, broken down into SBUs, are presented below:

EUR million	2022	2021	Change %
Construction Equipment CE	79.6	78.9	0.9 %
Construction Equipment Nordics	4.9	1.0	>100%
Construction Equipment Eurasia	10.6	38.7	-72.6 %
Rental	71.4	51.7	38.1 %
Power Systems	17.3	21.4	-19.2 %
Plant Engineering	-12.6	2.1	<-100%
Consolidated net profit before tax[31]	**134.6**	**159.5**	**-15.6 %**

Consolidated net profit before tax fell by EUR 24.9 million to EUR 134.6 million (previous year: EUR 159.5 million). The significant deterioration in the result of the Plant Engineering SBU was mainly due to a major project in Russia that can no longer be implemented due to sanctions. The return on sales decreased from 4.3% in the previous year to 3.5% in the financial year. The return on equity[32] before tax was 12.6%; the comparable total return on capital[33] was 4.6%. The return on capital employed (ROCE) was 6.2% compared with 8.0% in the previous year. The main cause of the decline was charges and risk provisions in connection with Russia's war against Ukraine and its consequences.

Income tax expense was EUR 30.3 million (previous year: EUR 41.5 million). Current taxes decreased, in particular due to the release of a tax provision and the war-related slump in business volume in Ukraine. In addition, the deferred tax expense decreased, particularly due to the reduction in deferred tax liabilities from the immediate write-off of the ERP software. As a result, the tax rate fell from 26.0% to 22.5%. Consolidated net profit after tax was EUR 104.4 million. This was EUR 13.6 million below the previous year's result.

[31] Including Zeppelin GmbH, klickrent GmbH, Z Lab GmbH and Klickparts GmbH, as well as consolidation effects.

[32] Return on equity = profit before tax / [(equity in previous year + equity in year under review) / 2].

[33] Total return on capital = profit before interest and tax / [(balance sheet total of previous year + balance sheet total of reporting year) / 2].

Financial Position

Capital Structure

Changes to the Group's **capital structure** are presented below:

LIABILITIES Proportion in % of balance sheet total	2022 IFRS	2021 IFRS
Balance sheet total in EUR million	**3,263**	**2,988**
Current liabilities		
Financial liabilities, trade payables, other financial liabilities	16.3 %	12.9 %
Contract liabilities	8.2 %	8.7 %
Employee benefits	3.5 %	3.7 %
Miscellaneous	6.4 %	6.1 %
Non-current liabilities		
Financial liabilities, trade payables, other financial liabilities	22.6 %	23.4 %
Contract liabilities	0.7 %	0.8 %
Employee benefits	3.5 %	5.6 %
Miscellaneous	4.2 %	5.0 %
Equity	34.6 %	33.8 %

Current liabilities as of December 31, 2022, were EUR 1,121.6 million, an increase of EUR 184.7 million. They consisted primarily of financial liabilities (EUR 160.3 million; previous year: EUR 114.1 million), trade payables (EUR 235.0 million; previous year: EUR 150.3 million), other liabilities (EUR 137.9 million; previous year: EUR 121.1 million), and contract liabilities (EUR 267.7 million; previous year: EUR 259.0 million). Financial liabilities increased, particularly due to a partial change in promissory note loans from long-term to short-term, as well as due to the financing of the rental fleet and investments in the new headquarters in Gothenburg, Sweden. Trade payables also increased as a result of increased machine deliveries by Caterpillar at the end of the year.

Non-current liabilities as of December 31, 2022, stood at EUR 1,013.0 million, having decreased by EUR 29.2 million. They consisted primarily of financial liabilities (EUR 568.7 million; previous year: EUR 530.7 million), other financial liabilities (EUR 169.0 million; previous year: EUR 168.5 million), and employee benefits (EUR 113.0 million; previous year: EUR 168.5 million). The reduction in long-term employee benefits was largely due to an increase in interest rates.

Equity increased by EUR 119.1 million to EUR 1,128.5 million in the financial year (taking into account positive currency translation differences attributable to Zeppelin of EUR 4.6 million; previous year: EUR 13.8 million). The currency translation differences mainly resulted from changes in the exchange rate for the Russian ruble, Ukrainian hryvnia, Swedish krona, Czech koruna, and US dollar. With total assets rising by 9.2% to EUR 3,263.1 million, the equity ratio[34] improved to 34.6% (previous year: 33.8%). The total non-current financial resources of EUR 2,141.5 million (previous year: EUR 2,051.5 million) exceeded non-current assets by EUR 446.4 million (previous year: EUR 421.1 million), which corresponds to an asset coverage[35] of 126.3% (previous year: 125.8%). They therefore also covered 52.8% (previous year: 70.8%) of the inventories.

Significant Financing Instruments

At the end of 2022, a syndicated credit facility that was originally taken out in 2011 and extended prematurely and increased in 2019 was available to the Group as a significant financing instrument. The term of the syndicated credit facility is five years (ends on December 10, 2024) and includes a prolongation option of one year on two occasions. The credit is available for cash drawdowns (EUR 500.0 million) and for providing guarantees

[34] Equity ratio = ratio of equity to total capital

[35] Asset coverage = non-current financial resources / non-current assets

(EUR 200.0 million). As of the end of 2022, a total of EUR 338.7 million (including EUR 150.9 million for guarantees), or 48.4% (previous year: 29.7%) had been utilized. In addition, at the end of 2022 the Group had additional bank credit lines of around EUR 118 million, of which it had utilized EUR 42.4 million.

Furthermore, the Group finances itself over the long term through the issuance of bonded loans. At year-end, the total volume of outstanding bonded loans was EUR 245 million (previous year: EUR 249.5 million). The Group again adhered to the financial covenants that were agreed and determined on the basis of its financial data in connection with the syndicated credit facility and bonded loans in 2022. In September 2022, Creditreform Rating AG downgraded the Group's rating to "A-". This was due to the difficult market conditions in Russia and Ukraine (war). The one-year outlook remains stable. The rating agency's stable rating assessment is based on growth in sales and earnings in the first half of 2022, in spite of the difficult underlying conditions and the impairments in the context of the war in Ukraine. The conservative financial and withdrawal policy and the long-term secured Group financing are also rated as positive. Prudent crisis and risk management limited the economic upheavals, primarily caused by the war between Russia and Ukraine.

The companies of the Construction Equipment CE, Construction Equipment Nordics, Construction Equipment Eurasia, and Power Systems SBUs continued to have access to extensive credit facilities at Caterpillar Financial Services and other sales financing and leasing companies in order to finance sales in Germany and abroad. In addition, asset leasing is used to finance vehicles as well as IT hardware and software. The extensive investments in the rental fleets in financial year 2022 were financed from current cash flow and debt recognized in the balance sheet.

LIQUIDITY

The development of cash and cash equivalents at the end of the financial year is shown in the following condensed consolidated cash flow statement:

EUR million	2022	2021
Cash flow from operating activities	-42.8	240.1
+ Cash flow from investing activities	-42.8	-53.4
+ Cash flow from financing activities	27.0	-137.9
= Changes in cash and cash equivalents	**-58.6**	**48.8**
+ Cash and cash equivalents at the beginning of the period	**211.4**	**157.3**
+ Foreign exchange rate differences and consolitdation group-related changes in cash and cash equivalents	4.2	5.3
= Cash and cash equivalents at the end of the period	**157.0**	**211.4**

Cash and cash equivalents fell by EUR 54.4 million year-onyear, which was attributable to targeted investments in inventories against the backdrop of a lack of availability of machines and engines. In addition, the rental fleet is being strategically built up in Denmark and Sweden.

Cash flow from operating activities decreased by EUR 282.9 million to EUR -42.8 million (previous year: EUR 240.1 million). The main drivers of this development were the increase in inventories (EUR -258.0 million, previous year: EUR -73.7 million) and changes in rental assets (EUR -222.7 million, previous year: EUR -141.1 million) as well as a decrease in other liabilities (EUR 35.9 million, previous year: EUR 150.0 million). This was offset by trade payables (EUR 82.0 million, previous year: EUR 19.2 million) and trade receivables (EUR -4.4 million, previous year: EUR -52.1 million).

At EUR -42.8 million, cash flow from investing activities was slightly lower than in the previous year (EUR -53.4 million). The changes resulted primarily from the EUR 3.4 million lower disbursements for the acquisition of consolidated companies (EUR -2.4 million, previous year: EUR -5.8 million) and EUR 2.6 million higher income from disposals of property, plant and equipment excluding the rental fleet (EUR 4.1 million, previous year: EUR 1.5 million). In addition, interest received increased compared with the previous year (EUR 5.5 million; previous year EUR 1.8 million).

Cash flow from financing activities rose by EUR 164.9 million to EUR 27.0 million (previous year: EUR -137.9 million). This was due in particular to an increase in non-current financial liabilities of EUR 74.4 million (EUR 136.8 million, previous year: EUR 62.3 million) and a decrease in the repayment of non-current financial liabilities of EUR 65.7 million (EUR -39.5 million, previous year: EUR -105.2 million).

INVESTMENTS

EUR million	2022	2021	Change %
Intangible assets	8.5	10.4	-20.2 %
Land and buildings	23.6	15.5	52.2 %
Operating and business equipment including technical equipment	40.7	41.9	-2.9 %
Investments in financial assets	3.1	8.9	-64.8 %
Total investments excluding rental fleet	**76.0**	**76.7**	**-1.3 %**
Investments in the rental fleet	262.9	172.0	52.8 %
Total investments including rental fleet	**338.9**	**248.7**	**36.2 %**

Total investments in property, plant and equipment, financial assets, and intangible assets amounting to EUR 338.9 million (including EUR 262.9 million in the rental fleet) were offset in the financial year by scheduled depreciation of EUR 178.8 million, which thus covered 52.8% of total investments (previous year: 65.7%). The increase in investments was due to the expansion of the rental fleet.

Net Assets

Structurally, the Group's assets are broken down as follows:

ASSETS Proportion in % of balance sheet total	2022 IFRS	2021 IFRS
Balance sheet total in EUR million	**3,263**	**2,988**
Current Assets		
Cash and cash equivalents	4.8 %	7.1 %
Financial assets, trade receivables	14.2 %	15.1 %
Contract assets	1.5 %	1.3 %
Inventories	25.9 %	19.9 %
Miscellaneous	1.7 %	2.0 %
Non-current assets		
Financial assets, trade receivables	1.1 %	1.2 %
Intangible assets; property, plant, and equipment	46.5 %	48.0 %
Miscellaneous	4.4 %	5.4 %

The balance sheet total of the Group increased in the financial year by EUR 274.6 million to EUR 3,263.1 million. This was due in particular to an increase in inventories, which was also influenced by an improvement in Caterpillar's ability to deliver (+EUR 250.0 million), volume-related additions to property, plant and equipment (EUR +90.2 million) and a decline in cash and cash equivalents (EUR -54.4 million). At 1.2 p.a., capital turnover[36] was slightly below the previous year (1.3 p.a.). At the end of 2022, the days of sales outstanding was slightly improved as of the balance sheet date to 35.0 days (previous year: 36.7 days).

The rights of use to leased assets are also reported under property, plant and equipment.

Comparison of Current Situation with Forecast

The financial performance indicators used to manage the Group are sales, net profit before tax, and ROCE.

EUR million	2022	2021	2021 Forecast
Sales	3,838.2	3,695.6	significant decline
Net profit before tax	134.6	159.5	significant decline
ROCE	6.2 %	8.0 %	significant decline

Sales growth compared with the previous year was weak, which was due to the continued good construction economy and inflation-related price increases. While net profit before tax fell significantly, ROCE fell moderately. The forecast deviations in net profit before tax and ROCE were attributable in particular to better financial results (interest

[36] Capital turnover = sales revenue / (previous-year balance sheet total + reporting year balance sheet total) / 2.

and currency) and higher other income, such as cost reimbursements.

5 Results of Operations, Financial Position, Net Assets of Zeppelin GmbH

Results of Operations

Zeppelin GmbH's sales increased by EUR 7.7 million to EUR 55.5 million in 2022 (previous year: EUR 47.8 million). In particular, the cost allocation of IT services and licenses rose by EUR 7.4 million to EUR 29.6 million. In addition, Zeppelin GmbH mainly generated sales from the rental of land and buildings of EUR 18.5 million (previous year: EUR 18.4 million).

Other income increased by EUR 2.3 million to EUR 10.4 million (previous year: EUR 8.1 million). The increase compared with the previous year was attributable to income from the reversal of provisions of EUR 7.2 million (previous year: EUR 6.3 million) and income from the cost allocation to affiliates of EUR 1.7 million (previous year: EUR 1.0 million).

The income from participations was EUR 23.9 million (previous year: EUR 36.1 million), having decreased by EUR 12.2 million, in particular due to lower dividend distributions from Zeppelin International AG, Switzerland.

Expenses for purchased services were around EUR 4.4 million higher than in the previous year, at EUR 17.1 million. This was due in particular to higher expenses for IT costs.

Personnel expenses fell slightly year-on-year by EUR 1.9 million to EUR 36.0 million (previous year: EUR 37.9 million), which was due to a net fall in the pension provision.

Amortization of intangible assets and depreciation of property, plant and equipment amounted to EUR 19.8 million, or approximately EUR 3.7 million more than the previous year (EUR 16.1 million). This was largely due to an impairment loss on IT software.

Other expenses decreased by EUR 29.0 million to EUR 28.2 million (previous year: EUR 57.2 million). The sharp decline can be explained by the project costs of EUR 27 million included in the previous year, which resulted from the transfer of the ERP system to Zeppelin Baumaschinen GmbH.

The interest result – excluding income from loans classified as fixed financial assets – amounted to EUR 2.6 million in the financial year, an improvement of EUR 4.7 million on the previous year (EUR -2.1 million). This can mainly be explained by the EUR 4.1 million increase in interest income from affiliates, while interest expenses remained almost the same.

Net profit before tax increased year-on-year to EUR 102.2 million (previous year: EUR 98.8 million). This was mainly due to higher interest income from affiliates, the elimination of the IT project costs incurred by Zeppelin Baumaschinen GmbH in the previous year, lower investment income from affiliates, lower income from profit transfer agreements, and higher loss transfers.

The net profit after tax was EUR 86.9 million (previous year: EUR 85.7 million). Income taxes amounted to EUR 14.9 million (previous year: EUR 12.7 million).

Financial Position

The financial strategy is derived from the business purpose of Zeppelin GmbH (the holding of participations, rental of land, buildings and technical equipment owned by the company to affiliated companies and the financing of the Group). The long-term commitment of funds to property, plant and equipment and financial assets (59.2% of assets) should correlate as far as possible with matching financing on the liabilities side of the balance sheet. Here, the creation of equity from retained profits is an important source of funding.

Zeppelin GmbH's absolute equity rose to EUR 829.8 million (previous year: EUR 763.6 million) as a result of the strong increase in the disposable profit in the reporting year and amounted to 61.3% of the balance sheet total (previous year: 64.5%). The long-term funds come to EUR 356.9 million (26.4% of the balance sheet total) and consist primarily of pension provisions (EUR 31.8 million) and liabilities to banks (EUR 325.0 million)[37]. Current funds include provisions (EUR 21.2 million), liabilities to banks (EUR 53.0 million), trade payables (EUR 4.4 million), liabilities to affiliates (EUR 62.0 million, mainly from cash investments of Group companies and cash pooling), other liabilities (EUR 23.3 million) as well as deferred income from the allocation of costs of the ERP system to the affiliates (EUR 3.4 million).

In financial year 2022, EUR 66.4 million (previous year: EUR 108.8 million) was invested. Of this, EUR 48.3 million relates to the increase of shares in affiliates.

Net Assets

Zeppelin GmbH's assets consists primarily of participations of EUR 553.7 million (previous year: EUR 505.5 million), loans to affiliated companies of EUR 100.3 million (previous year: EUR 100.3 million), land, buildings and assets under construction of EUR 116.0 million (previous year: EUR 109.7 million), and software of EUR 8.9 million (previous year: EUR 15.4 million). These assets thus correspond to 57.5% (previous year: 61.8%) of the balance sheet total, which rose to EUR 1,353.9 million (previous year: EUR 1,183.5 million). Receivables from affiliated companies rose by EUR 195.1 million to EUR 552.0 million (previous year: EUR 356.9 million). In the same period, cash and cash equivalents decreased by EUR 72.0 million to EUR 2.3 million. Non-current assets of EUR 790.4 million (previous year: EUR 744.1 million) were offset by non-current liabilities of EUR 1,186.7 million (previous year: EUR 1043.6 million) as of December 31, 2022. The latter consisted of equity, pension

[37] Exclusively bonded loans.

provisions, and non-current liabilities. Long-term asset coverage[38] increased from 140.2% to 150.1%. This was due in particular to the high additions to financial assets.

Investments in property, plant and equipment amounted to EUR 13.1 million (previous year: EUR 6.0 million). Of this amount, EUR 11.6 million (previous year: EUR 4.6 million) related to land, buildings and equipment, as well as assets under construction, which are rented to associates. This mainly involves investments in properties and buildings that are leased to Zeppelin Rental GmbH and Zeppelin Baumaschinen GmbH.

COMPARISON OF CURRENT SITUATION WITH FORECAST

The main financial performance indicator for Zeppelin GmbH is the net profit after tax.

In the previous year, a significant decline in the net profit after tax was forecasted according to IFRS. This decline did not occur, with a net profit after tax according to IFRS of EUR 89.5 million (previous year: 93.3 million), due in particular to a better gross profit from sales and lower income taxes.

C OPPORTUNITY AND RISK REPORT

1 RISK REPORT

GENERAL

As an internationally active corporate group, Zeppelin is exposed to various risks. In particular, macroeconomic and industry-specific risks, performance-related, personnel-related and financial risks must be taken into account. The risks presented below apply equally to Zeppelin GmbH and the Group.

MACROECONOMIC AND INDUSTRY-SPECIFIC RISKS

Because of the broad range of countries, industries and business models in which the Group is active, the macroeconomic and industry-specific risks are broadly distributed.

The Group's geopolitical and economic risk situation changed significantly with Russia's war of aggression against Ukraine and the reactions to this. Further information on this is provided under "Other risks".

Zeppelin is one of the largest worldwide dealers selling Caterpillar construction and mining equipment as well as engines. Although the dealership agreement between Caterpillar and Zeppelin can be terminated at relatively short notice, no substantial risk is seen here because of the extremely successful partnership between the two companies for more than 65 years. Zeppelin is also the market leader in leasing a broad array of construction machines and equipment, including complementary products and services in the relevant markets. In its target industries, including construction, energy, and shipping, there is some risk of defaults on receivables, which is countered by effective receivables and credit management. Appropriate account is taken of existing currency risks through currency hedging activities and proactive currency management.

The markets served by the Plant Engineering business unit are very diversified and include companies in the international rubber and tire industry, plastics producers and processors, and the food industry around the world. In the previous year, new markets were opened up in the field of battery mass production and plastics recycling. In order to reduce its risks from defaults on receivables, the Group concludes agreements regarding down payments and interim payments as well as collaterals. In order to protect itself against economic and political risks, the Group takes advantage of German government-backed trade export credit guarantees.

PERFORMANCE-RELATED RISKS

Caterpillar's delivery capacity and ability to deliver on time is the main risk to performance. Zeppelin and Caterpillar work together to continuously increase availability, for example, by making logistical improvements, maintaining inventories in Caterpillar's interim storage facilities, and preconfiguring machines. In order to ensure delivery, it also maintains inventories to balance out delivery bottlenecks and delays. The risks are minimized through international collaboration and management by the SBUs and ongoing inventory optimization. Due to the disruption of international supply chains, which also affected Caterpillar's production as the most important manufacturer partner, the availability of machines, engines, and spare parts was significantly restricted in some cases in 2022. As a result, the company's own stocks were increased significantly,, leading to a large rise in inventories at the end of the year. In the context of the high order backlog and the persistently high demand for services, no risk is seen here, but rather the ability to deliver and perform is secured in the future.

PERSONNEL-RELATED RISKS

The year 2022 was marked by Russia's war of aggression on Ukraine. The Zeppelin Group operates both in Russia and Ukraine and is thus directly affected by the war. Zeppelin's top priority was to protect employees and their families in the affected areas. Escape corridors were organized for employees and their families, and contacts were established at the borders to support those affected. Extensive humanitarian support services were and are available there. Zeppelin employees showed social commitment and provided refugees with private housing for accommodation.

To stave off the economic consequences for the affected employees as far as possible, salary payments were guaranteed and a EUR 100,000 aid fund was set up.

[38] (Equity + non-current outside capital) / non-current assets.

Offers and tips were made available to the entire workforce to support them in dealing with the current situation as well as crises in general, including the offers from famPlus, for example for personal advice.

Leadership plays an important role, especially in times of crisis characterized by uncertainty. Zeppelin's management principles of appreciation, trust, effectiveness, innovation, and enthusiasm are intended to provide guidance to managers and employees and represent a connecting element across national and corporate borders. They were introduced in 2022 and conveyed to over 800 managers in over 100 workshop and follow-up events. Achieving a work-life balance is an important goal for Zeppelin. Active support not only benefits employees, but also Zeppelin, as balanced employees are more efficient and thus make a significant contribution to the company's success. Various workshops were held as part of the Z Parents initiative, which is primarily aimed at employees on parental leave in order to support exchange during and re-entry after parental leave. The Z FIT health initiative offered various measures to support employees in maintaining and increasing well-being and promoting health-conscious behavior.

Zeppelin is once again one of the best employers in Germany in 2022, awarded by the "F.A.Z. Institute" and by "Stern". The "Fair Company" seal confirms that Zeppelin particularly meets the expectations and values of career entrants and young professionals of a fair, attractive employer.

In addition to the crisis situation caused by the war, social and economic trends and challenges have also had lasting influences on the working world. These include demographic change, globalization and digitalization, changing values and lifestyles, and the shortage of skilled workers. These challenges require additional measures to recruit and retain employees to counteract the shortage of skilled workers and secure the company's success in the long term. One indicator of employee satisfaction is the self-termination rate. In 2022, the self-termination rate was 7.3% (October 2022), which was higher than in the previous year (5.8%). This shows a heterogeneous picture with great variability across countries, business units, and professional groups. Overall, developments in the Zeppelin Group reflect the long-standing trend towards an employee market with a shortage of skilled workers at a record level. The long length of service of 9.4 years underlines the continued high level of employee loyalty to Zeppelin. Against this backdrop, the topics of employer attractiveness, recruitment and retention have continued to gain in importance. For this reason, the focus in 2023 will be on strategically embedding employer branding in order to further strengthen Zeppelin as an attractive employer brand. Moreover, a global employee survey will take place in 2023 to identify the strengths and potential for improvement in the company and to analyze the influencing factors of employee loyalty in more detail.

Further development opportunities play an important role in employee recruitment and retention. The Z COMPASS Orientation and Leadership target group-specific potential identification processes and the Z Talent program are carried out in order to identify and promote talent and employees with high potential from the company's own ranks. Based on the results, employees can be nominated to participate in a management development program.

In addition to digitalization, which requires digital skills and digitalized HR services, increasing internationalization demands global processes and systems that connect business units. In 2022, new modules of the Group-wide HR software Workday were rolled out in the areas of further training, performance, and talent management. The new modules offer learning opportunities that are independent of time and place, structured and continuous feedback processes based on Zeppelin management principles, and a systematic talent identification and succession planning process.

Financial Risks

The Group's financial ability to act at any time is primarily ensured by the syndicated credit facility that was set up in 2011 and then extended again and increased in 2019. This credit facility has a term until 2024 and a prolongation option of one year on two occasions. In addition, in order to diversify its outside capital structure, the Group issues bonded loans, maintains bilateral credit lines with third-party banks, and makes use of sales financing via several specialized institutions. Extensive credit facilities are also available for SLB/SLP transactions, especially for financing the rental fleet.

In accordance with the Group's financial strategy of hedging around two thirds of its average financial liabilities against interest rate risks, the Group makes use of interest rate swaps or refinances itself with fixed-interest promissory note loans respectively. These hedging transactions secure Zeppelin GmbH against an increase in interest expenses in the event of drawdowns under the syndicated credit facility as well as for bonded loans. Hedging transactions have been concluded that expire in 2023, 2024, and 2025, and fixed-interest promissory note loans with maturities in 2025, 2026, 2029, and 2031. In addition, there are variable-rate promissory note loans, which are synthetically fixed-income due to interest rate swaps with maturities in 2023 and 2024. The Group has thus hedged itself against the risk of rising interest rates in the long term. Due to its business activities in emerging markets and developing countries, the Group is exposed to corresponding currency risks. To limit these risks, the cash flow of individual transactions or projects that are not denominated in the same currency are hedged with forward exchange contracts. In addition, the Group limits currency risks by financing its subsidiaries in emerging economies and developing countries in local currencies and by employing sophisticated asset management techniques. To monitor currency risks, the Group operates a value-at-risk limit system that is integrated in the Group-wide treasury management system and continuously monitored with action areas being highlighted. Despite consistent risk management, the foreign currency loss increased in 2022, which was, however, largely offset by better margins on sales. The extreme currency fluctuations since February 2022 (war in Ukraine), among other factors, were crucial in this regard. The situation has stabilized since the summer. Additional information regarding interest rate changes and currency risks can be found in the Notes to the Consolidated Financial Statements.

To protect itself against the financial consequences of large liability risks and substantial damages when it bears limited inherent risks, the Group takes out insurance policies. Special attention is paid to claims management and the related prevention of claims through precautionary measures. Coverage is continually monitored and adjusted as required within the scope of an international insurance management system. In addition, insurance coverage is centrally coordinated and managed for the entire Group. The real estate investments in St. Petersburg were insured against political risks by obtaining German government-backed guarantees for direct investments in other countries.

OTHER RISKS

RUSSIA AND UKRAINE RISKS

Russia's war against Ukraine has had a major impact on Zeppelin's business. While in financial year 2021, 17% of Group sales, 30% of net profit before tax and around 20% of employees were still attributable to Russia, Belarus, and Ukraine, these figures declined in 2022. Following the sale of the company in Belarus and the risk minimization measures taken in Russia and Ukraine, these countries accounted for only 12% of Group sales, 14% of net profit before tax, and 12% of employees in financial year 2022. Zeppelin's net assets positions in Russia and Ukraine accounted for a low three-digit million amount at the end of the year, which was less than the previous year as a result of targeted risk provisions. Even a total loss of this risk-bearing amount would not jeopardize the continued existence of the company.

CYBER RISKS

The cyber threat situation, which is rated as “very high” worldwide, has been seen as exacerbated since Russia's attack on Ukraine – especially for Germany. Overall, the situation continued to escalate throughout 2022: The threat in the cyber space is therefore higher than ever before.

Increased professionalism in computer crime was observed, accompanied by further threats related to the Russian war of aggression against Ukraine. Cyber extortion through ransomware remains one of the biggest threats in the cyber space. Zeppelin therefore regularly reviews existing information security measures in order to adapt them to the current threat situation.

Ensuring the availability, integrity, and confidentiality of data is an essential requirement for Zeppelin. Likewise, the resilience of the systems used, and products provided against the described threats is also essential.

Zeppelin strives to achieve and maintain these requirements through appropriate strategies. For this reason, technical and organizational measures were taken last year as part of the Group-wide information security management system and its risk management in order to be able to counter risks in a targeted manner through detection, response, and prevention.

For example, the IT operations of the Eurasia region have been restructured in order to be able to react as flexibly as possible to future changes and threats. Furthermore, the development of a Group-wide IT Service Continuity Management (ITSCM) was accelerated. The introduction of the ITSCM is intended to ensure the availability, integrity, and confidentiality of Zeppelin's time-critical and business-critical business processes in the event of cyber attacks and IT crisis situations.

The human factor continues to play a key role in many attacks. For this reason, awareness training was extended for all Group employees and simulated phishing attacks were carried out on a regular basis. These campaigns led to a significant awareness of these risks among employees, which are accompanied by further technical measures. Security monitoring and security analytics ensure that anomalies are detected, and attack attempts are prevented.

These and other measures of integrated information security management form the basis for appropriate protection against current threats in the cyber environment. But in the future, we can expect continued strong growth in the dynamics of cyber risks, mainly driven by advancing digitalization and an increase in cyber crime. Despite the implementation and improvement of these preventive security measures, risks cannot be ruled out in this volatile environment.

CLIMATE RISKS

Various climate risks have the potential to affect Zeppelin's business activities.

Transitory climate risks can be associated with the transition to an environmentally friendly, carbon-free economy. Zeppelin has identified regulatory changes, for example due to new or stricter laws and requirements, as well as higher operating and investment costs, for example due to necessary technical retrofitting of plant and equipment or the energy-efficient refurbishment of existing properties, as risks and areas for action. Furthermore, it is expected that current sales markets will change because of the transformation of the economy, and that the demand for products that use fossil energy sources will decrease in the long term, and the need for environmentally friendly, low-emission products and services will rise significantly. As a sustainable company, Zeppelin is responding at an early stage to the changes brought about by the transformation to a more environmentally friendly economy and expects this to create opportunities such as the development of new sales markets, an improvement in competitiveness through changes to the product and service portfolio, and increased resilience.

Physical climate risks can arise from the direct consequences of climate change, for example from an increase in extreme weather events, floods, forest fires, and periods of drought. Depending on the respective macro and micro situation, these environmental events can affect each of Zeppelin's locations with varying severity, probability, and extent of damage. Long-term changes, such as the increase in average temperatures, as well as indirect risks, such as restricted functionality of international supply chains due to local environmental damage, are also considered. At the same time, physical climate risks offer opportunities for Zeppelin as these risks must be countered by appropriate measures such as the expansion of flood protection systems, irrigation and drainage systems, and the energy-efficient refurbishment of buildings.

Caterpillar, as Zeppelin's most important business partner and supplier, is also committed to sustainability and thus contributes to a lower carbon future. Caterpillar demonstrates this, e.g. through progress in reducing greenhouse gas (GHG) emissions from its own operations, and its ongoing investments in new products, technologies, and services to help customers meet their climate-related goals. Caterpillar is developing a range of alternative power and propulsion solutions to support a lower-carbon future, including battery-powered construction machinery. Caterpillar has also acquired a company that specializes in carbon capture.

Zeppelin is counteracting potential climate risks at an early stage through sustainable corporate governance and a voluntary commitment to achieve self-imposed sustainability targets, such as the goal of being a carbon-neutral company in day-to-day operations by 2030. As in previous years, further climate risks and possible fields of action will be identified and prioritized in the coming years, and measures to reduce risks and identify opportunities will be defined as required.

Risk Management System

General Aspects

As a global company, the Group is exposed to several risks. The Group counters these risks and meets the applicable operational, market-related, and legal requirements with a comprehensive risk management system. Risk management is part of the Group's business and decision-making processes and aims to identify, quantify, and report risks at an early stage. The focus here is to counter the risks that have been identified and to avoid risks that jeopardize the survival of the Group.

A dedicated planning and reporting system is a key aspect of risk management. The goal here is to ensure comprehensive recording of risks. All managers are involved in the identification, analysis, and evaluation of risks. Countermeasures to avoid or reduce risks are initiated accordingly.

The quarterly risk reporting system comprises the assessment of the identified risks according to their magnitude and probability of occurrence based on twelve risk categories and documents the countermeasures taken and their effectiveness over time.

In addition, the ad-hoc risk reporting process ensures that adequate measures are initiated in a timely manner if material risks occur. The Group's established Risk Panel is responsible for monitoring all risks and tracking the measures that have been initiated.

At Zeppelin, country-specific risks are evaluated based on established country risk reports. The management team and risk managers have access to a report with information about economic, political, and business area-specific risks for every country, in which Zeppelin is active. This information also serves as the basis for controlling and the initiation of adequate measures to avoid risks.

In 2022, the Group auditing department conducted several standard audits. These were mainly carried out at the operating Group companies klickrent GmbH, Zeppelin LAB GmbH, Zeppelin Danmark A/S, Zeppelin Sverige AB, Zeppelin Systems USA Inc., and at Zeppelin GmbH. In addition, a total of seven follow-up audits were conducted at the Group companies Zeppelin Armenien LLC, Zeppelin Baumaschinen GmbH, Zeppelin Rental GmbH, Zeppelin Systems GmbH (two follow-up audits) and Zeppelin GmbH (two follow-up audits). A special audit was carried out on a major order entry in the Plant Engineering SBU.

Zeppelin also carried out an analysis of the Internal Control System (ICS) for the relevant Group companies in 2022, identifying potential for improvement in the areas of automation, documentation, and process efficiency, which are addressed and implemented through appropriate measures. Corresponding extensions to the ICS are also being implemented in the context of increasing requirements for sustainability reporting.

Assessment of Risk Categories

The above-mentioned risk types are contained in the following four risk categories:

- Asset risks [inventories/stocks, receivables, risks in the rental fleet, risks from agreements with financing companies (Rental Purchase Options/RPOs)],
- Currency risks (transaction/translation currency risks),
- Contract risks (contract risks, warranty risks),
- Financial risks (order backlog risks, sales risks, fiscal risks, market-related earning risks, other risks).

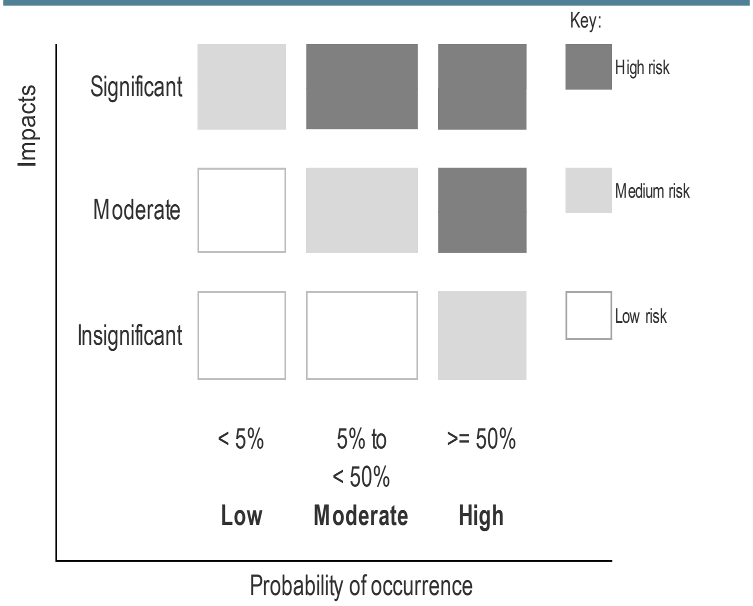
An evaluation matrix is used to assess these risks in terms of their probability of occurrence and their potential impacts on financial performance. The definitions used are explained below.

Definitions

Degree of impact	Definition of impact
Insignificant	Only insignificant, limited negative impacts on the financial performance (net losses < EUR 10 million[39])
Moderate	Some negative impacts on the financial performance (net losses >= EUR 10 million and < EUR 20 million[39])
Significant	Considerable negative impacts on the financial performance (net losses >= EUR 20 million[39])

Probability of occurrence	Description
< 5%	Low
5% to < 50%	Medium
>= 50%	High

Evaluation matrix



Classification of Risk Categories

Risk category	Risk of occurrence	Impact on profit situation[39]	Risk assessment
Asset risks	High	Significant	High
Currency risks	Low	Moderate	Medium
Contract risks	Low	Insignificant	Low
Financial Risks	Low	Insignificant	Low

The classification of the risk categories changed compared with the previous year, in particular due to the tense geopolitical situation in Russia, Ukraine and Belarus.

[39] Per risk category.

Overall Assessment of the Risk Situation

The implemented risk management system is highly regarded within the Group and is an integral component of the business processes. It ensures that control mechanisms and measures to avoid and reduce risk are effective.

The Group's controlling department and risk panel continuously monitor the risk reporting system and take steps to keep improving the quality of risk management. The risk early warning system is checked and assessed by the auditor each year to ensure that it is being properly and effectively practiced.

No risks that could endanger the going concern of Zeppelin GmbH or its subsidiaries existed during the reporting year, nor are any such risks presently discernible for the future. For risks related to Russia, Ukraine, and Belarus, and the cyber and climate risks, please refer to the comments under the respective separate sections of this report.

2 Opportunities

Despite the generally challenging underlying conditions, Zeppelin considers itself well positioned in its markets and is cautiously optimistic about the future. This forecast is supported by a very high order backlog as well as many products that are already available in stock or in the inflow. In almost all industries that Zeppelin serves, there are many projects on the customer side that support the demand for Zeppelin solutions. It is expected that sufficient financing should be available for this, as many countries are setting up supportive economic stimulus plans in times of crisis.

The megatrends and developments of our time are contributing to Zeppelin's business models. These include the growing demand for housing and infrastructure projects. This will lead to a high demand for construction machinery and services related to construction activities. In addition, many projects relating to the energy transition, as well as the construction or renovation of infrastructure, are expected in the coming years. These include, for example, the construction of power lines and the expansion of fiber optics, as well as the renovation of bridges, roads, and railway network. It is anticipated that the topics of efficiency and safety on construction sites will become increasingly important. Zeppelin is well positioned in many of these areas, whether through the number of connected construction machines or the digital interaction points with its customers. This is followed by the topic of digitalization, which can be used to streamline and optimize processes, for example. Sustainability is also becoming increasingly important, whether in the energy supply, in drives, or in the operation of systems and machines. As a result, Zeppelin offers a wide range of opportunities with innovative solutions in the areas of construction and mining machinery, rental, construction logistics, drive and energy, plant engineering, and new digital business models.

Specifically, a more differentiated picture can be drawn for the different areas and business activities. The future prospects for the construction industry in Germany and the western part of Europe are positive. This will translate into continued stable high demand for construction and mining equipment, both in the sales and rental business. In combination with the strong partner Caterpillar, Zeppelin sees itself as excellently positioned in the market and among customers. Accordingly, the possibility of above average participation in this is to be expected. Demand for rental solutions in particular continues unabated, and in times of further disrupted supply chains, this is where future prospects for success lie. There are opportunities for profitable growth in the five foreign markets in which Zeppelin is active with rental solutions. Above all, there is above-average strong growth in the areas that go beyond machine rental and target services and (complete) solutions on the construction site.

A different picture emerges in terms of business in Eurasia due to Russia's all-dominating war against Ukraine. Under the currently very difficult situation, opportunities do not seem realistic at present and risk management is the focus. In Russia, business activities are continued on a massively reduced basis within the framework of contractual obligations to Caterpillar and with regard to employees within the scope of what is possible under sanctions law. This is also due to the fact that Caterpillar has no longer accepted orders for new Caterpillar construction machines for Russia since late summer 2022. At present, no assessment of possible opportunities can be made for Ukraine. Activities in Belarus were divested in mid-2022. The war is also having an impact on other business segments, and on plant engineering and power systems, for example with customers from the oil and gas industry. While the gas engine in combined heat and power plants is clearly taking a back seat as a transitional technology for the energy transition, there is a significantly greater demand for solutions for emergency power supply.

When it comes to the need for alternative drives and also electrically powered construction machinery, Zeppelin has with Caterpillar a partner at its side that invests a lot in these solutions. At the world's leading trade fair for construction machinery "bauma", a number of products were presented that are expected in the coming years and which met with great interest. Zeppelin is also consistently pursuing its projects relating to fuel cell technology in the Power Systems division.

Even though the project business in Plant Engineering is challenging, Zeppelin considers itself well positioned in a number of future markets. These include battery mass, recycling, and meat substitutes. Through a targeted strengthening its own organization and also considerations of acquisitions, focal points are systematically being set for future market participation. The overarching theme of automation technology in Plant Engineering provides similar opportunities here.

Zeppelin has initiated a large number of activities and projects with which it will continue to consistently pursue its growth strategy. These are situated in a wide range of areas. In addition to topics focused on the markets, there are also those that strengthen the organization and make Zeppelin attractive as an employer. In times of skills shortages, issues such as harmonizing processes and automating them, revising management principles, and increasing employer attractiveness are becoming particularly important. In the competition for talent, Zeppelin has a lot to offer, and the strong identification of employees with the company is seen as a decisive success factor in the future.

M&A activities are also being pursued alongside organic growth. A number of projects are in progress here that are intended both to complement and expand the product portfolio and to open up interesting new market and customer segments. The Group's continued good financial resources provide scope for action for various activities in this context.

3 COMPLIANCE

Compliance at Zeppelin is based on the conviction that social responsibility, observance of the law, and ethical conduct are essential for long-term business success. Complying with legal requirements, official regulations, and internal corporate guidelines is a key part of Zeppelin's management and corporate culture. Membership of the UN Global Compact underscores the Zeppelin Group's clear commitment to human rights and sustainable corporate management.

The Zeppelin Group's Code of Conduct for Business & Ethics forms the basis of the Compliance Program and the compliance culture that has been evolving for years. The Compliance Program is supported by compliance risk management, a policy organization, and regular communication. Against the backdrop of the evolving global political and economic situation, the compliance management of all business units was expanded and strengthened with regard to export controls, sanctions, and embargoes. Compliance trainings are supplemented by a multilingual compliance e-learning program. The "Compliance Basics" e-learning module is a mandatory program for all employees and teaches about the basics of compliance and corruption prevention and provides information on antitrust law. Working with the Konstanz Institute for Corporate Governance (KICG) at the University of Constance, a workshop was designed in which managers could deepen their knowledge of compliance and integrity at Zeppelin.

Employees can contact the internal compliance organization via the Zeppelin intranet, a special email address, and of course in person. Alternatively, external lawyers also act as contacts in the sales territories. In addition, an online whistleblower system, the Zeppelin Trust Line, has been set up for employees and third parties to report suspected compliance cases, including the option of reporting anonymously.

The compliance officers and employees responsible for implementing the compliance program receive special training on an ongoing basis to train and qualify them for their roles; the compliance officers responsible for the Groups' strategic business units are certified for this position.

D FORECAST

Downside risks currently prevail in the real economy outlook, due in particular to a high degree of uncertainty about future inflation trends, the availability of products and upstream production, disrupted supply chains, and an increasing shortage of skilled workers. Even though the COVID-19 pandemic seems to have been overcome, comparable events cannot be ruled out in the future. However, the high order backlogs on the customer side, which can be reduced if the supply and logistics chains continue to ease, are having a positive effect. Government relief measures, such as the electricity price cap in Germany, may also counteract inflationary pressure. Inflation is expected to weaken slightly in calendar year 2023 after it is expected to peak in 2022. The forecasts are therefore subject to a high degree of uncertainty.[40]

The International Monetary Fund forecasts GDP growth of 2.9% for the global economy in 2023. The forecast growth in the euro area and Germany is expected to be significantly weaker at 0.7% and 0.4% respectively. In real terms, the global economy, as well as economic output in Europe and Germany, is likely to decline. For Brazil and the USA, the GDP growth forecast is 1.2% and 1.4% respectively. China and India, at 5.2% and 6.1% respectively, expect the highest growth in the reported countries.[41] One European country is even expected to see a decline, with Sweden forecast at -0.1%. Slight growth is expected for Poland at 0.5% and Denmark at 0.6%. GDP growth is expected to be somewhat stronger for Austria (1.0%), the Slovak Republic, and the Czech Republic (both 1.5%). No forecast could be made for Ukraine.[42]

With regard to the core market of the **Construction Equipment CE SBU**, the outlook in Germany's construction industry has deteriorated after years of boom. The mix of rising construction, financing and living costs is increasingly impacting demand for construction services. The Zentralverband Deutsches Baugewerbe (ZDB) expects sales in the construction industry of almost EUR 155 billion for 2023. This corresponds to a nominal decline of 2% and (with estimated price growth of +5%) a real decline of 7%. According to the current underlying conditions, the main source of concern is residential construction. The ZDB expects a 10% real decline in sales here for 2023. Commercial construction looks similar (-6%). A decline of 4.5% in real terms is expected for public sector. [43]

A slight decline is anticipated for the markets of the **Construction Equipment Nordics SBU** in 2023. This is not considered material for Denmark. The decline in Sweden

[40] Panel of experts: Annual expert report 2022/23, dated November 9, 2022, p. 44-47.
[41] IMF World Economic Outlook Update January 2023.
[42] IMF World Economic Outlook Database, October 2022.
[43] ZDB economic forecast 22–23.

is expected to primarily affect the development of Building Construction Products machines, as growth is expected for both transport infrastructure and non-residential construction. This means that the mining business and clean gas induction machines are unlikely to be significantly affected by the decline in the building construction sector.[44]

For 2023, the **Construction Equipment Eurasia SBU** expects a significant decline in market and business volume compared with 2022 due to Russia's war against Ukraine and its consequences. The discontinuation of further business segments and the loss of assets in Russia and Ukraine cannot be ruled out. In Uzbekistan, contracts for significant mining machine orders are expected in 2023. Further business growth is also expected in Armenia.

According to the European Rental Association, the German rental market, which is particularly important for the **Rental SBU**, is expected to grow by 2.4% in 2023. Rental market growth in Austria is expected at 2.1% and in the Czech Republic at 5.2%. Sweden is expected to grow by 1.8% and Denmark by 1.3%.[45]

The Verband Deutscher Maschinen- und Anlagenbauer (VDMA) expects a nominal revenue decline of -1% year on year for the engines and systems sector in 2023.[46] The **Power Systems SBU** is cautiously optimistic about 2023 due to the high demand for drive and energy solutions, high utilization in service, and solid order entry. Continued disruptions to supply chains and the associated challenges in terms of material availability and delivery times for parts and engines are dampening these prospects. The focus in 2023 will be on the expansion of digital business models, on alternative drives and fuels, as well as the further positioning in the major project business in the international environment. The company is working harder to explore possible options for system integration and marketing of heat pumps. Power Systems is investing in the use of fuel cells in marine applications, plans to develop prototypes in the future and continues to focus on partnerships in this area. In addition, there is a strategic focus on the SAP project, which will enter the implementation phase in 2023 in an international approach together with the Construction Equipment Nordics SBU and Zeppelin Digit.

The VDMA, which is important for the **Plant Engineering SBU**, reports an at least cautiously optimistic to optimistic sentiment for the majority of member companies surveyed, in spite of the deteriorating economy. This is based in particular on considerable order backlogs from member companies and slowly easing supply chains. Almost 70% of respondents forecast an increase in turnover for 2023 compared with the previous year, while about 15% see stagnation and only around 20% expect a downward trend. The production forecast for 2023 is estimated at EUR 243 billion and therefore 2% less than the previous year.[47]

The Group is anticipating a moderate decline in sales, a significant decline in net profit before tax, and a weak decline in return on capital employed (ROCE) for the 2023 financial year. Zeppelin GmbH expects a significant decline in the net profit after tax according to IFRS for 2023. There are no major differences with respect to the net profit after tax in the individual financial statements for Zeppelin GmbH according to IFRS and the German Commercial Code.

E PROPOSED ALLOCATION OF PROFITS

The Management Board proposes to distribute a dividend of 18%, i.e. EUR 18,022 thousand, for financial year 2022 from the consolidated net profit for the year attributable to the shareholders of Zeppelin GmbH (EUR 100,123 thousand) and to carry forward the remaining net profit of EUR 610,511 thousand to new account.

[44] EUROCONSTRUCT, 93rd Euroconstruct Summary Report Winter 2022.
[45] ERA Market Report 2022, November 2022.
[46] VDMA Forecast, 2023, October 2022.
[47] VDMA Annual Press Conference 2022.

Friedrichshafen, February 28, 2023

The Management Board of Zeppelin GmbH

Peter Gerstmann Michael Heidemann Christian Dummler

Alexandra Mebus Fred Cordes

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

OF ZEPPELIN GMBH FOR THE PERIOD DATING JANUARY 1 TO DECEMBER 31, 2022

in kEUR	No.	2022	2021
Sales	1	3,838,152	3,695,587
Cost of Sales	2	-3,274,748	-3,162,816
Gross profit on sales		**563,404**	**532,772**
Research and development costs		-2,555	-1,738
Selling expenses		-261,112	-223,995
General administrative expenses		-180,853	-159,256
Other income	3	88,669	52,340
Other expenses	4	-58,952	-30,749
Impairment of financial instruments and contract assets (net)		-4,672	-1,896
Share in the result of companies accounted for using the equity method		-370	1,808
Profit before net financial result		**143,558**	**169,285**
Interest result	6	-14,499	-12,965
thereof, interest expenses	6	-22,923	-17,177
thereof, interest income	6	8,425	4,212
Other financial result	6	5,571	3,184
thereof, other financial expenses	6	-13,008	-7,757
thereof, other financial income	6	18,579	10,942
Net financial result		**-8,927**	**-9,780**
Net profit before tax		**134,631**	**159,505**
Income taxes	7	-30,261	-41,506
Net profit after tax		**104,370**	**117,999**
thereof, attributable to non-controlling interests		4,247	3,332
thereof, attributable to the shareholders of Zeppelin GmbH		100,123	114,667

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

OF ZEPPELIN GMBH FOR THE PERIOD DATING JANUARY 1 TO DECEMBER 31, 2022

in kEUR	2022	2021
Net profit after tax	**104.370**	**117.999**
Actuarial gains (-) and losses (+) from pension plans	47.004	4.749
Income taxes	-12.971	-1.196
Items that will not be reclassified to the consolidated statement of profit or loss	**34.032**	**3.554**
Exchange differences on the translation of foreign operations	4.203	15.077
Hedging gains or losses including transfer to profit or loss	66	1.271
Income taxes	-7	-339
Items that may be reclassified to the consolidated statement of profit or loss	**4.262**	**16.009**
Other comprehensive income after tax	**38.294**	**19.562**
Total comprehensive income	**142.664**	**137.561**
thereof, attributable to non-controlling interests	3.893	4.607
thereof, attributable to the shareholders of Zeppelin GmbH	138.771	132.955

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

OF ZEPPELIN GMBH AS OF DECEMBER 31, 2022

in kEUR	No.	12/31/2022	12/31/2021
Assets			
Current assets			
Cash and cash equivalents	9	157,044	211,423
Financial assets	10	22,467	19,662
Trade receivables	10	439,285	431,653
Contract assets	11	48,371	40,058
Other assets	12	51,091	53,467
Income tax receivables		4,782	3,376
Inventories	13	844,906	594,913
Assets held for sale	14	0	3,500
		1,567,946	**1,358,052**
Non-current assets			
Financial assets	15	27,655	26,374
Trade receivables	15	9,346	9,785
Contract assets	11	94	91
Other assets	12	53,230	53,667
Income tax receivables		53	323
Investments accounted for using the equity method	16	18,659	19,501
Intangible assets	17	95,793	104,551
Property, plant, and equipment	18	1,419,983	1,329,761
Deferred taxes	7	70,319	86,345
		1,695,133	**1,630,396**
		3,263,079	**2,988,448**

in kEUR	No.	12/31/2022	12/31/2021
Equity and liabilities			
Current liabilities			
Financial liabilities	19	160,252	114,125
Trade payables	19	234,952	150,309
Other financial liabilities	19	137,948	121,068
Contract liabilities	11	267,731	258,989
Other liabilities	20	131,466	128,602
Income tax liabilities		15,430	6,883
Employee benefits	22	113,393	109,723
Other provisions	23	60,413	47,225
		1,121,585	**936,925**
Non-current liabilities			
Financial liabilities	21	568,703	530,692
Other financial liabilities	21	169,002	168,451
Contract liabilities	11	24,180	24,701
Other liabilities	20	79,497	78,125
Income tax liabilities		915	9,632
Employee benefits	22	113,032	168,479
Other provisions	23	5,574	5,620
Deferred taxes	7	52,111	56,478
		1,013,015	**1,042,178**
Equity			
Share capital	24	100,000	100,000
Capital reserves	24	60,000	60,000
Retained Earnings	24	937,804	858,445
Accumulated other comprehensive income	24	15,666	-22,983
Equity attributable to the shareholders of Zeppelin GmbH		**1,113,470**	**995,462**
Non-controlling interests	24	15,008	13,883
		1,128,478	**1,009,345**
		3,263,079	**2,988,448**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

OF ZEPPELIN GMBH FOR THE PERIOD DATING JANUARY 1 TO DECEMBER 31, 2022

				Accumulated other comprehensive income					
in kEUR	Share capital	Capital reserves	Retained earnings	Pension plan remeasurements	Exchange differences on the translation of foreign operations	Hedging gains or losses	Equity attributable to the shareholders of Zeppelin GmbH	Non-controlling interests	Equity
01.01.2021	**100,000**	**60,000**	**759,549**	**-19,445**	**-20,484**	**-1,341**	**878,279**	**11,678**	**889,957**
Net profit after tax			114,667				**114,667**	3,332	**117,999**
Other comprehensive income				3,553	13,802	932	**18,287**	1,275	**19,562**
Total comprehensive income			**114,667**	**3,553**	**13,802**	**932**	**132,955**	**4,607**	**137,561**
Dividends			-15,711				**-15,711**	-2,110	**-17,821**
Changes in the consolidation group								-292	**-292**
Other changes			-60				**-60**		**-60**
31.12.2021	**100,000**	**60,000**	**858,445**	**-15,892**	**-6,682**	**-409**	**995,462**	**13,883**	**1,009,345**
Net profit after tax			100,123				**100,123**	4,247	**104,370**
Other comprehensive income				34,032	4,557	59	**38,648**	-354	**38,294**
Total comprehensive income			**100,123**	**34,032**	**4,557**	**59**	**138,771**	**3,893**	**142,664**
Dividends			-20,640				**-20,640**	-3,034	**-23,674**
Changes in the consolidation group					0		**0**	267	**267**
Other changes			-123		0		**-123**	0	**-123**
31.12.2022	**100,000**	**60,000**	**937,804**	**18,141**	**-2,125**	**-350**	**1,113,470**	**15,009**	**1,128,478**

Consolidated Statement of Cash Flows

of Zeppelin GmbH for the Period Dating January 1 to December 31, 2022

in kEUR	2022	2021
Net profit after tax	**104,370**	**117,999**
Income taxes	30,261	41,506
Net profit before tax	**134,631**	**159,505**
Depreciation, amortization, impairments and reversals of impairment losses	282,757	271,626
thereof, intangible assets	24,083	17,464
thereof, property, plant, and equipment excluding rental fleet	71,482	79,850
thereof, rental fleet	187,191	174,311
thereof, financial assets	0	0
Share in the result of companies accounted for using the equity method	370	-1,808
Change in post-employment benefit obligations	-6,334	-6,437
Change in long-term provisions	-2,115	-425
Unrealized foreign exchange rate gains/losses	-12,882	-3,683
Interest income and expenses	14,499	12,965
Income from other participations	-1,799	-3,257
Other non-cash income/expenses	-7,578	14,552
Income from asset disposals	1,934	255
Change in inventories	-258,038	-73,685
Change in assets held for rental	-222,690	-141,145
Change in RPO assets held for rental	-50,900	-55,678
Change in trade receivables	-4,406	-52,090
Change in other receivables and assets	-5,669	-10,925
Change in trade payables	82,018	19,180
Change in other payables and other liabilities	35,924	149,975
Income taxes received	3,963	264
Income taxes paid	-29,968	-35,607
Change from assets held for sale	3,500	-3,500
Cash flow from operating activities	**-42,783**	**240,082**

in kEUR	2022	2021
Cash flow from operating activities	**-42.783**	**240.082**
Payments for investments in		
Intangible assets	-8.545	-10.415
Property, plant, and equipment excluding rental fleet	-45.764	-44.080
Financial assets	-24	-562
Proceeds from the sales of		
Intangible assets	273	148
Property, plant, and equipment excluding rental fleet	4.137	1.518
Financial assets	1.841	704
Payments for the acquisition of consolidated companies	-2.402	-5.773
Proceeds from the sales of consolidated companies	384	0
Interest received	5.499	1.811
Dividends received	1.799	3.257
Cash flow from investing activities	**-42.803**	**-53.391**
Proceeds from non-current financial liabilities	136.787	62.346
Repayment of non-current financial liabilities	-39.526	-105.184
Proceeds from current financial liabilities	369.931	141.958
Repayment of current financial liabilities	-344.385	-148.012
Proceeds from the conclusion of SLB transactions	7.944	10.259
Payments for SLB liabilities	-25.126	-30.475
Payments for lease liabilities	-37.957	-39.364
Interest paid	-16.961	-11.568
Dividends paid to shareholders of Zeppelin GmbH	-20.640	-15.711
Distributions made to non-controlling interests	-3.034	-2.110
Cash flow from financing activities	**27.032**	**-137.860**
Changes in cash and cash equivalents	**-58.554**	**48.831**
Cash and cash equivalents at the beginning of the period	**211.423**	**157.332**
Changes in cash and cash equivalents	-58.554	48.831
Consolidation group-related changes in cash and cash equivalents	255	1.161
Foreign exchange rate differences in cash and cash equivalents	3.919	4.099
Cash and cash equivalents at end of the period	**157.044**	**211.423**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

OF ZEPPELIN GMBH FOR THE PERIOD DATING JANUARY 1 TO DECEMBER 31, 2022

A COMPANY

The Zeppelin Group (hereinafter "Zeppelin" or "Group") provides solutions for the following areas: construction and agricultural equipment, rental equipment, construction logistics, drives and energy, engineering, and plant engineering. The Group is legally domiciled in Friedrichshafen, with its headquarters located in Garching near Munich. The consolidated financial statements comprise Zeppelin GmbH and its subsidiaries. Zeppelin GmbH has its registered office domiciled in Friedrichshafen and is entered in the Commercial Register B of the District Court of Ulm under number HRB 630217.

Group-wide collaboration at Zeppelin revolves around a management holding company and six strategic business units (hereinafter "SBU"): Construction Equipment Central Europe (hereinafter "Construction Equipment CE"), Construction Equipment Eurasia, Construction Equipment Nordics, Rental, Power Systems and Plant Engineering. The structure supports the bundling of operations and the targeted orientation of the business models towards various markets and customers.

The "Zeppelin Digit" Strategic Management Center, which is responsible for cross-SBU matters in the area of IT, digitalization and innovation, supplements the strategic business units.

Zeppelin GmbH is a Kapitalgesellschaft (corporation) whose voting rights are held 96.25% by Luftschiffbau Zeppelin GmbH, Friedrichshafen, and 3.75% by the Zeppelin Foundation. The Zeppelin Foundation is administered by the City of Friedrichshafen. The Zeppelin Foundation holds 90.0% of the shares in Luftschiffbau Zeppelin GmbH; the remaining 10.0% are held by Zeppelin GmbH. Based on an agreement concluded between Zeppelin GmbH and Luftschiffbau Zeppelin GmbH on November 7, 2011, control is passed through to the Zeppelin Foundation, which therefore is the ultimate parent company of Zeppelin GmbH. The Zeppelin Foundation does not have legal personality and does not prepare consolidated financial statements. That is why Zeppelin GmbH is obliged to prepare consolidated financial statements in accordance with Section 290 (1) sentence 1 HGB (German Commercial Code).

B BASIS OF PREPARATION

As a non-publicly traded company, Zeppelin GmbH makes use of the option under Section 315e (3) HGB to prepare its consolidated financial statements in accordance with IFRS.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS and IAS) and Interpretations (IFRIC and SIC) adopted into European law by the European Commission as of the reporting date. The International Accounting Standards are drawn up by the International Accounting Standards Board (IASB) while the interpretations are designed by the International Financial Reporting Standards Interpretations Committee (IFRSIC). These bodies are supported by a private foundation based in London (GB), the International Accounting Standards Foundation.

The financial year corresponds to the calendar year. All figures are presented in euros, the functional currency of the Group, and have been rounded up or down to the nearest thousand euros (kEUR). Rounding may result in rounding differences.

The consolidated financial statements are prepared in accordance with the historical cost convention with exceptions made e.g. for derivatives and participations, which are measured at fair value.

The consolidated financial statements were authorized for submission to the shareholders and to the Supervisory Board of Zeppelin GmbH on February 28, 2023 by the Management Board. The shareholders may request changes or amendments to the consolidated financial statements in the course of approval.

ACCOUNTING STANDARDS APPLIED

Standards Applied for the First Time

The following standards, interpretations, or amendments to standards were mandatory for the first time in financial year 2022:

IAS 16 – Property, Plant and Equipment

IAS 16 requires that the acquisition costs of an item of property, plant, and equipment includes all directly attributable costs incurred in bringing an asset to its location and a condition ready for use. This includes, for example, costs for test runs. It was unclear whether income from the sale of marketable "preliminary products" created during test runs that exceeds the test costs reduces the acquisition or production costs of the item of property, plant, and equipment. The amendment to IAS 16 clarifies that in future no deduction of such income from the cost of the item of property, plant, and equipment will be permitted. Instead, proceeds from the sale of products incurred during the production phase of the production facility in question are recognized in profit or loss in accordance with IFRS 15 for revenue and IAS 2 for costs. This does not have any impact on the Zeppelin Group.

IAS 37 – Provisions, contingent liabilities and contingent assets

In 2020, the IASB published amendments to IAS 37 under the heading "Onerous Contracts – Costs of Fulfilling a Contract". The amendments clarify what exactly is meant by the costs of fulfilling a contract. These are all costs of fulfilling the contract that are directly attributable to the contract. The directly attributable costs are not only the incremental costs incurred by an entity as a result of the contract, such as direct labor and material costs, but also other costs directly attributable to the performance of the contract (for example, pro rata depreciation of an item of property, plant, or equipment used to perform the contract). This did not have any impact on accounting in the Zeppelin Group.

IFRS 3 – Business combinations

The subject of the amendment to IFRS 3 is the adaptation of a reference contained therein to the new conceptual framework published in 2018. Furthermore, IFRS 3 is supplemented by the requirement that an acquirer must apply the rules of IAS 37 or IFRIC 21 instead of the conceptual framework when identifying acquired obligations in connection with purchase price allocations that fall within the scope of IAS 37 or IFRIC 21. Exceptions to this are contingent liabilities, for which the exemption under IFRS 3.23 remains valid. Furthermore, IFRS 3 is supplemented by an explicit prohibition on the recognition of acquired contingent assets. This did not have any material impact on the Zeppelin Group.

IFRS 1 – First-time adoption of IFRS

The objective of the amendment in IFRS 1 is a further simplification in the transition to IFRS for subsidiaries that only convert their accounting to IFRS after the parent company. Previously, subsidiaries could recognize their assets and liabilities on the transition date at the carrying amounts from the parent's consolidated financial statements. However, this exemption did not apply to equity. With the annual improvements, IFRS 1 has been adapted to the effect that the exemption option also extends to a cumulative currency translation difference of the subsidiary contained in the consolidated equity of the parent company. This eliminates the need for the subsidiary to maintain a separate statement for the translation difference. The change has no effect on the Zeppelin Group.

IFRS 9 – Financial Instruments

When debt is rolled over or modified, IFRS 9 may require the previous financial liability to be derecognized and a new one recognized, depending on the materiality of the modification. To assess whether the contractual terms of a liability have changed materially, a comparative calculation is performed in the form of a 10% test. According to this, a liability must be derecognized if the present value of the future payments under the new/modified terms differs by at least 10% from the "old" present value. The amendment to IFRS 9 clarifies that the debtor only has to take into account the fees that flowed between him and the creditor in the comparative calculation. This includes, for example, a fee payable to the bank for carrying out the debt restructuring, but not the fee payable to the advisor for assisting in the negotiation with the bank. The modification to IFRS 9 did not have any effect on the Zeppelin Group.

IFRS 16 – Leases

The amendments only relate to an editorial adjustment in example 13 of IFRS 16. To eliminate previous uncertainty regarding the treatment of lease incentives, a passage with the example of reimbursement of expenses for leasehold improvements was deleted. The amendment has no impact on the Zeppelin Group.

IAS 41 – Agriculture

In IAS 41.22, the reference to tax payments in the fair value determination was deleted. This ensures compliance with the provisions of IFRS 13, which state that the fair value is always determined on the basis of an after-tax approach. The change has no impact on the Zeppelin Group.

Standards not yet Adopted

By the date of preparation of the consolidated financial statements, the IASB and IFRIC had published new and amended existing accounting standards, the first-time application of which is only mandatory or permitted after the reporting date. The regulations and expected effects of their application on the consolidated financial statements are presented below:

Standard/Interpretation/Framework		First application	Brief summary
IFRS 17	"Insurance contracts"	01/01/2023	IFRS 17 "Insurance contracts" will replace IFRS 4 "Insurance contracts" in the future. Both insurance companies and non-insurance companies fall within the scope of this accounting standard, as IFRS 17 must be applied on a product-specific basis (i.e. on the accounting and measurement of insurance contracts), but not on a sector-specific basis (i.e. not limited to insurance companies). No significant effects are expected for Zeppelin from the new introduction. This is partly because IFRS 17.7 (a) explicitly excludes warranty services in connection with the sale of products from the scope of application of the standard.
IAS 8	"Accounting policies, changes in accounting estimates and errors"	01/01/2023	Instead of the previous definition of "change in an accounting estimate", IAS 8 will in future define the term as follows: "Accounting estimates are monetary amounts in financial statements that are subject to measurement uncertainty". The amendment is intended to assist in accounting practice in distinguishing between "accounting policies" and "accounting estimates". While changes in accounting policies must be applied retrospectively, changes in estimates must be applied prospectively. No effects are expected for Zeppelin from the change.
IAS 12	Income taxes	01/01/2023	The amendment to IAS 12 relates to the accounting for deferred taxes dealing with assets and liabilities that do not arise in connection with a business combination. For these, the obligation to recognize deferred taxes is excluded if the assets and liabilities have been recognized for the first time without an impact on profit or loss or tax. It was unclear whether leases (when a lessee recognizes an asset and a liability at the inception of the lease) and decommissioning liabilities (when an entity recognizes a liability and includes the cost of decommissioning in the cost of the asset) also fall under such an exception. The change restricts the scope of application for the recognition exception. Accordingly, the initial application exception does not apply to transactions in which deductible and taxable temporary differences in the same amount are offset upon initial recognition. This applies in particular to leases and decommissioning liabilities. No effects are expected for Zeppelin from the change.
IAS 1	"Presentation of Financial Statements"	01/01/2023	The modification of IAS 1 and Guideline Document 2 on Materiality is intended to assist IFRS accounting officers in determining which accounting policies are to be applied in the financial statements. It was made clear that entities had to report on the material methods, not on the significant methods. IFRS Practice Statement 2 also contains additional explanations and examples intended to provide assistance with the application of the materiality concept. The modification has no significant effect on Zeppelin.

CONSOLIDATION GROUP

Subsidiary

The following subsidiaries are included in the consolidated financial statements:

Name	Registered office		Equity share in %	
	Country	Town/City	12/31/2022	12/31/2021
Zeppelin GmbH	Germany	Friedrichshafen	N/A	N/A
AT Baumaschinentechnik Beteiligungs GmbH	Germany	Munich	100.0	100.0
Energyst Germany GmbH (consolidated for the first time in 2022 and merged into Zeppelin Rental GmbH)	Germany	Duisburg	N/A	100.0
IBH Ingenieurbüro Herzbruch GmbH	Germany	Schwelm	100.0	100.0
klickrent GmbH (formerly: Accelerent GmbH)	Germany	Berlin	100.0	100.0
Klickparts GmbH	Germany	Hallbergmoos	100.0	100.0
Luther Verwaltungs GmbH (consolidated for the first time in 2022 and merged with Zeppelin Rental GmbH)	Germany	Hoppstädten-Weiersbach	N/A	100.0
Magdalena KITZMANN GmbH (consolidated for the first time in 2022)	Germany	Lengerich	60.0	N/A
METON GmbH	Germany	Garching near Munich	100.0	100.0
SITECH Deutschland GmbH	Germany	Oberhausen	100.0	100.0
Zeppelin Aviation & Industrial Service GmbH	Germany	Friedrichshafen	100.0	100.0
Zeppelin Baumaschinen GmbH	Germany	Garching near Munich	100.0	100.0
Zeppelin Lab GmbH	Germany	Berlin	100.0	100.0
Zeppelin Power Systems GmbH	Germany	Hamburg	100.0	100.0
Zeppelin Power Systems Verwaltungs GmbH	Germany	Hamburg	100.0	100.0
Zeppelin Rental GmbH	Germany	Garching near Munich	100.0	100.0
Zeppelin Systems GmbH	Germany	Friedrichshafen	100.0	100.0
Zeppelin Armenien LLC	Armenia	Abovyan	100.0	100.0
Zeppelin Systems Benelux N.V.	Belgium	Genk	100.0	100.0
Zeppelin Systems Latin America Equipamentos Industriais Ltda.	Brazil	São Paulo	100.0	100.0
Zeppelin Systems China (Beijing) Co. Ltd.	China	Beijing	100.0	100.0
Zeppelin Systems China (Shanghai) Co. Ltd.	China	Shanghai	60.0	60.0
SITECH Danmark A/S	Denmark	Horsens	100.0	100.0
Zeppelin Danmark A/S	Denmark	Brondby	100.0	100.0
Zeppelin Systems UK Limited	England	Nottingham	100.0	100.0
Baltic Marine Contractors OÜ	Estonia	Tallinn	100.0	100.0
Zeppelin Systems France S.A.R.L.	France	Vénissieux Cedex	100.0	100.0
Smart Controls India Ltd.	India	Madhya, Pradesh	60.0	60.0
Zeppelin Systems India Pvt. Ltd.	India	Vadodara	100.0	100.0
Zeppelin Systems Italy S.p.A. (formerly: Nuova Ciba S.p.A.)	Italy	Reggio Emilia	100.0	100.0
Zeppelin Systems Italy S.r.l. (merged into Nuova Ciba S.p.A. in 2022)	Italy	Milan	N/A	100.0
Zeppelin Österreich GmbH	Austria	Fischamend, near Vienna	100.0	100.0
Zeppelin Rental Österreich GmbH & Co. KG	Austria	Fischamend, near Vienna	100.0	100.0
Zeppelin Rental Österreich GmbH	Austria	Fischamend, near Vienna	100.0	100.0

Name	Registered office		Equity share in %	
	Country	Town/City	12/31/2022	12/31/2021
Zeppelin Polska Sp. z.o.o.	Poland	Warsaw	100.0	100.0
Zeppelin Immobilien Russland OOO	Russia	Moscow	100.0	100.0
Zeppelin Power Systems Russland OOO	Russia	Moscow	100.0	100.0
Zeppelin Russland OOO	Russia	Moscow	100.0	100.0
Zeppelin Systems Gulf Co. Ltd.	Saudi Arabia	Al Jubail	100.0	100.0
SITECH Sverige AB	Sweden	Örebo	100.0	100.0
Zeppelin Sverige AB	Sweden	Mölndal	100.0	100.0
Zeppelin International AG	Switzerland	Steinhausen	100.0	100.0
Zeppelin Systems Singapore Pte. Ltd.	Singapore	Singapore	100.0	100.0
DIMA service for plant engineering s.r.o.	Slovak Republic	Bratislava	100.0	100.0
Zeppelin SK s.r.o.	Slovak Republic	Banska Bystrica	100.0	100.0
Zeppelin Systems Korea Corporation	South Korea	Gyeonggi Province	100.0	100.0
Zeppelin Tadschikistan OOO	Tajikistan	Dushanbe	100.0	100.0
Zeppelin CZ s.r.o.	Czech Republic	Modletice near Prague	100.0	100.0
Construction SITECH CZ s.r.o. (included in consolidation group for first time in 2022)	Czech Republic	Brno	100.0	100.0
Zeppelin Turkmenistan JV	Turkmenistan	Ashgabat	100.0	100.0
PJSC “Ukrcukorteploi-zolyaciya” (UCTI)(	Ukraine	Vyshneve	100.0	100.0
Zeppelin Marine Service Ukraine LLC	Ukraine	Kiev	100.0	100.0
Zeppelin Ukraine TOV	Ukraine	Kiev	100.0	100.0
Zeppelin Central Asia Machinery OOO	Uzbekistan	Tashkent	100.0	100.0
Zeppelin Systems USA Inc.	United States of America	Odessa, Florida	100.0	100.0
Zeppelin Belarus OOO (sold and deconsolidated in 2022)	Belarus	Minsk	N/A	100.0

The following subsidiaries are not included in the consolidated financial statements because their non-inclusion has no material impact on the presentation of the net assets, financial position and results of operations. Zeppelin measures the shares in these companies at fair value through profit or loss. The fair values largely correspond to the historical acquisition costs.

Name	Registered office		Equity share in %		Net profit/loss 2022 in kEUR[1]	Equity at 12/31/2022 in kEUR[1]
	Country	Town/City	12/31/2022	12/31/2021		
Fehmarnbelt Solution Services A/S	Denmark	Greve	N/A	100.0	n/a	n/a
SITECH Austria GmbH	Austria	Steyr	100.0	100.0	468	711
Levotec s.r.o.	Slovak Republic	Levoča	100.0	100.0	71	1,145
Meton s.r.o.	Czech Republic	Tuchoměřice	100.0	100.0	0	0

Fehmarnbelt Solution Services A/S, Greve, Denmark, was liquidated with the entry of November 28, 2022.

Energyst Germany GmbH, Duisburg, acquired in 2021, and Luther Verwaltungs GmbH, Hoppstädten Weilersbach, acquired in 2019, were included in the consolidation group for the first time as of January 1, 2022 and then merged into Zeppelin Rental GmbH. The companies were not previously included due to a lack of materiality.

Meton s.r.o., Tuchomerice, Czech Republic, acquired in 2019, which was not included due to lack of materiality, transferred its assets and liabilities to Zeppelin CZ s.r.o. in

[1] Local GAAP financial statements

January 2022 as part of an asset deal. Meton s.r.o. is now in liquidation.

Construction SITECH, Brno, Czech Republic, acquired in 2011, was included in the consolidation group for the first time on January 1, 2022.

For further information, please refer to the section *"Business combinations"*.

Associates

The following associate is included in the consolidated financial statements using the equity method:

Name	Registered office		Equity share in %	
	Country	Town/City	12/31/2022	12/31/2021
CZ Loko a.s.	Czech Republic	Česká Třebová	49.0	49.0

CZ Loko, a.s., whose registered office is in Česká Třebová (Czech Republic), is an associate accounted for using the equity method and is a strategic sales partner of Zeppelin. The company mainly manufactures, repairs, and sells railway traction vehicles, metal structures, and machinery. Zeppelin CZ s.r.o. holds 49.0% of the shares and thus participates in the decision-making process. In addition, the Management Board and commercial management of Zeppelin CZ s.r.o. are members of the Supervisory Board of CZ Loko.

Joint operations

Zeppelin Power Systems GmbH established a legally independent economic entity in 2020 in the form of a civil-law partnership together with a consortium partner. The consortium bears the name "Konsortium BHKW Oberhausen" and its purpose is the joint delivery, construction, and commissioning of a turnkey combined heat and power plant. The consortium was classified as a joint operation as the consortium had rights to the assets and obligations for the liabilities of the joint arrangement under the consortium agreement. Zeppelin had recognized the related assets and liabilities as well as expenses and income at the amount of the schedule of participation of 67.1%. The project was completed in financial year 2021 with the turnkey handover of the combined heat and power plant to the customer. The consortium will continue to exist for the duration of the warranty period.

Together with another shareholder, Zeppelin Rental GmbH founded an umbrella working group in the form of a civil-law partnership. The umbrella working group bears the name "WIM A43 Emschertalbrücke" and has as its purpose the joint construction of a barrier/cradle system for the A43 Emschertal Bridge between Recklinghausen and Herne. The working group is classified as a joint operation as the shareholders have rights to the assets and obligations for the liabilities of the joint arrangement under the umbrella working group agreement. Zeppelin recognizes the related assets and liabilities as well as expenses and income at the amount of the provisional schedule of participation of 48.9%.

Subsidiaries with significant non-controlling interests

The consolidated financial statements include the following subsidiaries with significant non-controlling interests:

Name	Registered office		Equity share of non-controlling interests in %	
	Country	Town/City	12/31/2022	12/31/2021
Smart Controls India Ltd.	India	Madhya Pradesh	40.0	40.0
Zeppelin Systems China (Shanghai) Co. Ltd.	China	Shanghai	40.0	40.0
Magdalena KITZMANN GmbH	Germany	Lengerich	40.0	N/A

The following tables present financial information on Smart Controls India Ltd. before intragroup eliminations:

in kEUR	Smart Controls India Ltd. 31.12.2022	31.12.2021
Net assets		
Current Assets	3.163	2.812
Non-current assets	534	455
Current liabilities	-1.049	-765
Non-current liabilities	-322	-143
	2.326	**2.359**
Share in %	40,0	40,0
	930	**943**

in kEUR	Smart Controls India Ltd. 2022	2021
Net profit after tax		
Sales	3,876	2,885
Net profit/loss	77	-43
Share in %	40.0	40.0
	31	**-17**

in kEUR	Smart Controls India Ltd. 2022	2021
Cash flow from operating activities		
Cash flow from operating activities	-310	792
Share in %	40,0	40,0
	-124	**317**
Cash flow from investing activities		
Cash flow from investing activities	18	44
Share in %	40,0	40,0
	7	**18**

in kEUR	Smart Controls India Ltd. 2022	2021
Cash flow from financing activities		
Cash flow from financing activities	-26	-335
Share in %	40,0	40,0
	-11	**-134**
Dividends	**0**	**-47**

The following tables present the financial information on Zeppelin Systems China (Shanghai) Co. Ltd. before intragroup eliminations:

in kEUR	Zeppelin Systems China (Shanghai) Co. Ltd. 31.12.2022	31.12.2021
Net assets		
Current Assets	140.525	81.444
Non-current assets	984	773
Current liabilities	-106.277	-50.511
Non-current liabilities	-459	-462
	34.773	**31.243**
Share in %	40,0	40,0
	13.909	**12.497**

in kEUR	Zeppelin Systems China (Shanghai) Co. Ltd. 2022	2021
Net profit or loss after tax		
Sales	107,626	83,472
Net profit/loss	11,851	8,547
Share in %	40.0	40.0
	4,741	**3,419**

in kEUR	Zeppelin Systems China (Shanghai) Co. Ltd. 2022	2021
Cash flow from operating activities		
Cash flow from operating activities	72.670	16.716
Share in %	40,0	40,0
	29.068	**6.686**
Cash flow from investing activities		
Cash flow from investing activities	681	30
Share in %	40,0	40,0
	272	**12**

in kEUR	Zeppelin Systems China (Shanghai) Co. Ltd. 2022	2021
Cash flow from financing activities		
Cash flow from financing activities	-7.585	-5.155
Share in %	40,0	40,0
	-3.034	**-2.062**
Dividenden	**2.062**	**2.011**

The tables below present the financial information on Magdalena KITZMANN GmbH before intra-Group eliminations:

in kEUR	Magdalena KITZMANN GmbH 31.12.2022
Net assets	
Current assets	9.023
Non-current assets	8.567
Current liabilities	-15.000
Non-current liabilities	-3.052
	-462
Share in %	40,0
	-185

in kEUR	Magdalena KITZMANN GmbH 2022
Net profit after tax	
Sales	21.499
Net profit/loss	-1.129
Share in %	40,0
	-452

in kEUR	Magdalena KITZMANN GmbH 2022
Cash flow from operating activities	
Cash flow from operating activities	2.374
Share in %	40,0
	949
Cash flow from investing activities	
Cash flow from investing activities	0
Share in %	40,0
	0

in kEUR	Magdalena KITZMANN GmbH 2022
Cash flow from financing activities	
Cash flow from financing activities	-2.957
Share in %	40,0
	-1.183
Dividends	**0**

Changes in the Consolidation Group

Acquisition of Magdalena KITZMANN GmbH

On January 1, 2022, 60% of the shares in Magdalena KITZMANN GmbH, Lengerich, were acquired. The company specializes in customized complete systems and assemblies for bulk material handling, and strengthens the Plant Engineering division in the Zeppelin Group with a high vertical integration. The total purchase price of the transaction was EUR 3,100 thousand. The initial consolidation was carried out at the fair value of the transferred assets and liabilities, which were as follows:

in kEUR	
Assets	
Current assets	
Cash and cash equivalents	698
Other financial assets	123
Trade receivables	1.461
Contract assets	1.820
Other assets	72
Inventories	1.639
	5.813
Non-current assets	
Intangible assets	5.513
Property, plant, and equipment	4.159
Deferred tax assets	1.866
	11.538
	17.351
Liabilities	
Current liabilities	
Financial liabilities	7.262
Trade payables	1.537
Contract liabilities	2.923
Other financial liabilities	519
Employee benefits	108
Provisions	150
	12.499
Non-current liabilities	
Financial liabilities	2.288
Deferred tax liabilities	1.897
	4.185
	16.684
Net assets	**667**

The gross amounts of receivables correspond to their fair values. No bad debts were identified.

As part of the purchase price allocation, hidden reserves on property, plant and equipment as well as a customer base and an order backlog were recognized. The useful life is 2 to 20 years.

In addition, goodwill of EUR 2,700 thousand was capitalized. Goodwill reflects the expansion of the market position in the area of plastics plants.

Non-controlling interests in the acquired net assets amounted to EUR 267 thousand.

First-time consolidation of Construction SITECH s.r.o.

With effect from January 1, 2022, Construction SITECH s.r.o., Czech Republic, which had previously not been included in the consolidated financial statements for reasons of materiality, was included in the consolidation group for the first time. The fair value of the participation at the time of initial consolidation was EUR 745 thousand.

The company was acquired in 2011 (99% of the shares) and 2014 (remaining shares).

The initial consolidation was carried out at the fair value of the transferred assets and liabilities, which were as follows:

in kEUR	
Assets	
Current assets	
Cash and cash equivalents	334
Other financial assets	0
Trade receivables	779
Other assets	50
Inventories	1,047
	2,209
Non-current assets	
Intangible assets	2
Property, plant, and equipment	271
Deferred tax assets	37
	310
	2,519
Liabilities	
Current liabilities	
Financial liabilities	1,029
Trade payables	283
Other financial liabilities	24
Other financial liabilities	155
Tax liabilities	79
Employee benefits	119
Provisions	44
	1,733
Non-current liabilities	
Financial liabilities	24
Deferred tax liabilities	17
	41
	1,774
Net assets	**745**

The gross amounts of receivables correspond to their fair values. No bad debts were identified.

No difference or goodwill arose from the first-time consolidation.

First-time consolidation and restructuring of companies from the Luther/Energyst Group

With effect from January 1, 2022, the companies Energyst Germany GmbH (acquired in 2021) and Luther Verwaltungs GmbH (acquired in 2019), which had not yet been included in the consolidated financial statements for reasons of materiality, were included in the consolidation group for the first time and then merged into Zeppelin Rental GmbH.

Meton s.r.o., Czech Republic, which was not previously included for reasons of materiality, transferred its assets and liabilities to Zeppelin CZ s.r.o. in January 2022. The transfer took place at fair values. This resulted in goodwill of EUR 99 thousand.

First-time consolidation of Landvetter project companies and merger with Zeppelin Sverige AB

On March 21, 2022, the companies Logistic 4.3 and 4.4 Landvetter AB were acquired by Zeppelin Sverige AB. The acquisition of the shares in the company essentially involved the transfer of land for the expansion of Zeppelin's business activities in Sweden. The purchase price for the acquisition of the shares was EUR 3,514 thousand. In the course of the first-time inclusion, hidden reserves of EUR 2,462 thousand were capitalized on the land.

The first-time consolidation was carried out at fair value of the transferred assets and liabilities; irrecoverable receivables were not identified. No goodwill arose from the first-time consolidation. The fair values as of the time of the transfer are as follows:

in kEUR	
Assets	
Current assets	
Other financial assets	30
Trade receivables	2
	32
Non-current assets	
Property, plant, and equipment	3,579
	3,579
	3,611

in kEUR	
Liabilities	
Current liabilities	
Financial liabilities	355
Other financial liabilities	16
Income tax liabilities	1
	372
	372
Net assets	**3.239**

On October 4, 2022, both companies merged into Zeppelin Sverige AB. There were no effects in the Zeppelin Group as a result of the merger.

Upward merger of Zeppelin Power Systems Verwaltungs GmbH

On September 1, 2022, Zeppelin Power Systems Verwaltungs GmbH merged with Zeppelin GmbH. The merger has no effect in the Zeppelin Group.

Sale of Zeppelin Belarus OOO

Due to the Western embargo against Belarus, since June 4, 2022 Zeppelin Belarus OOO's business is de facto no longer possible. For this reason, on July 28, 2022, all shares in Zeppelin Belarus OOO, Minsk, were sold and the company deconsolidated. The sale price was USD 917 thousand (around EUR 871 thousand) that had already been paid at the time of closing. The company's derecognized assets and liabilities resulted in a carrying amount of EUR 1.5 million. Accumulated effects from the currency translation of assets and liabilities of EUR -1.3 million that had arisen since the acquisition of Zeppelin Belarus OOO were recognized in accumulated other comprehensive income up to the time of deconsolidation. At the time of deconsolidation, this amount was recognized as an expense. These two effects on profit or loss of EUR 1.9 million netted were reported under other operating expenses.

C Accounting Policies

Zeppelin has consistently applied the following accounting policies in all periods presented.

Consolidation and Participations

The consolidated financial statements comprise Zeppelin GmbH and its subsidiaries. A subsidiary is a company which is directly or indirectly controlled by Zeppelin GmbH. Control exists when Zeppelin has the power over the investee, has a risk exposure, or rights, to variable returns from its involvement with the investee and has the ability to use its power over the investee to affect the amount of the investor's returns. If facts and circumstances indicate that one or more of the three elements of control have changed, Zeppelin reassess whether it controls an investee. In the case of structured companies, control may arise from contractual arrangements.

Zeppelin assigns the consolidated net profit after tax and each component of the other comprehensive income to the shareholders of Zeppelin GmbH and those of the non-controlling interests. The total comprehensive income is allocated to the shareholders of Zeppelin GmbH and the non-controlling interests even if this results in a negative balance for the interests of non-controlling interests.

An entity is included in the consolidated financial statements from the date on which Zeppelin obtains control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the reporting period are recognized in the consolidated financial statements from the date on which Zeppelin obtains control of the subsidiary until the date on which control ceases.

All intragroup assets and liabilities, equity, income and expenses and cash flows from transactions between Group companies are eliminated on consolidation.

Uniform accounting and valuation principles are used for preparing the annual statements of those companies included in the consolidated financial statements.

A list of the subsidiaries of Zeppelin GmbH is included in the "Consolidation Group" section.

If the proportion of equity held by non-controlling interests changes, the carrying amounts of the controlling and non-controlling interests are adjusted to reflect the changes in their relative ownership interests in the subsidiary. Zeppelin recognizes any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received directly in equity and allocates it to Zeppelin GmbH shareholders.

Consolidation ends when Zeppelin relinquishes control of the subsidiary. In this case, the associated assets (including goodwill), liabilities, non-controlling interests, and other components of equity are derecognized. Any resulting gain or loss is recognized in the statement of profit or loss. Any retained participation is accounted for either at fair value or, in the case of investments in associates and joint ventures, using the equity method.

Business combinations are accounted for using the acquisition method. The acquisition costs arising from the company acquisition are measured as the sum of the consideration transferred, which is measured at the fair value on the acquisition date, and the value of the non-controlling interests in the acquired company. For each business combination, Zeppelin determines whether non-controlling interests are measured at fair value or at the proportionate share of the acquired entity's identified net assets. The costs arising from the business combination are recognized as administrative expenses. Goodwill arising from a business combination is initially measured at cost, being the difference between the sum of the consideration transferred, the amount of non-controlling interests and the previously held interests over the identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired exceeds the total consideration transferred, the difference is recognized in the statement of profit or loss. Goodwill is tested for impairment annually and written down to the lower recoverable amount if necessary.

Joint arrangements in which two or more parties have joint control over an activity are classified as either joint operations or joint ventures.

A joint operation exists when the parties involved in joint control (joint operators) have rights to the assets or obligations for the liabilities attributable to the arrangement. A joint operator recognizes its attributable assets, liabilities, incomes, and expenses and its share of the joint assets, liabilities, incomes and expenses.

In a joint venture, however, the parties sharing in the joint control (venturers) have rights to the net assets of the entity. Associates are entities over which Zeppelin exercises significant influence and which are neither subsidiaries nor joint ventures.

Investments in associates and joint ventures are accounted for using the equity method. The investment is initially recognized at cost but subsequently adjusted for any changes in Zeppelin's share of the net assets of the associated company or joint venture.

Zeppelin's share of the net profit after tax of the associate or joint venture is reported in the consolidated statement of profit or loss, its share of other income in other comprehensive income.

Where necessary, adjustments are made to the uniform Group accounting policies and valuation methods.

Zeppelin determines annually at the reporting date whether there is any objective evidence that the investment in an associate or joint venture may be impaired.

Intragroup balances and transactions as well as income and expenses from intragroup transactions are eliminated when preparing the consolidated financial statements.

Gains and losses on transactions with companies accounted for using the equity method are eliminated against Zeppelin's interest in the associated company to the amount of Zeppelin's interest. However, losses are only eliminated to the extent that there is no indication of impairment. When the associate sells the products resulting from intragroup deliveries, these corrections are reversed in the statement of profit or loss or in subsequent years by adjusting the Group retained earnings.

Foreign Currency Valuation

Each company translates foreign currency transactions into the functional currency of that company at the transaction date. In subsequent periods, companies measure monetary assets and liabilities at the closing rate. Non-monetary items denominated in foreign currencies continue to be measured at the historical exchange rate at the transaction date. Exchange differences arising from measurement in the functional currency of the respective company are recognized in the statement of profit or loss.

Assets and liabilities of companies not belonging to the eurozone are translated into the reporting currency of the Group (euro) at the closing rate, income and expenses at the average rate of their respective functional currency. Differences arising from translation using the reporting currency are recognized in other comprehensive income. The main foreign currencies are:

	12/31/2022	12/31/2021
Closing rate		
EUR/CZK	24.12	24.86
EUR/DKK	7.44	7.44
EUR/GBP	0.89	0.84
EUR/PLN	4.68	4.60
EUR/RUB	78.49	85.30
EUR/SEK	11.12	10.25
EUR/USD	1.07	1.13
EUR/UAH	39.24	30.92

	2022	2021
Average rate		
EUR/CZK	24.57	25.64
EUR/DKK	7.44	7.44
EUR/GBP	0.85	0.86
EUR/PLN	4.69	4.57
EUR/RUB	73.63	87.15
EUR/SEK	10.63	10.15
EUR/USD	1.05	1.18
EUR/UAH	34.24	32.29

Impairment Tests

At each reporting date, Zeppelin determines whether there is any indication that an asset may be impaired. If such an indication exists, Zeppelin performs an impairment test.

In order to carry out impairment tests, the assets concerned must generate cash inflows that are largely independent of those attributable to other assets. This applies to individual assets only in a few cases. Generally, individual assets must be combined into larger cash-generating units (CGUs) for the impairment test.

For the impairment test, the carrying amount of the CGU or the individual asset is compared with the recoverable amount. The recoverable amount represents the amount that Zeppelin can realize by continuing to include the CGU or individual asset into its operations (represented by value in use) or by selling it (represented by fair value less costs to sell). If the recoverable amount is less than the carrying amount of the asset or CGU, an impairment loss to the recoverable amount is recognized as an expense.

Goodwill acquired in business combinations is allocated to those CGUs or groups of CGUs that are expected to benefit from the synergies of the combination. For Zeppelin, each SBU represents a group of CGUs to which goodwill is allocated for impairment testing.

Zeppelin generally determines the recoverable amount of CGUs or individual assets at fair value less costs to sell. The DCF method is applied. The cash flows used for the calculation are derived from the mid-term plan approved by management for the next three years on an after-tax basis. The expected cash flows after this period are extrapolated using growth rates. The growth rates are shown in the Notes to the Balance Sheet ("Intangible Assets" section). The cost of capital after taxes is used to determine the present value. The fair value determined in this way falls into level 3 of the fair value hierarchy.

If an impairment loss is recognized for a CGU, it is first allocated to the goodwill attributable to that CGU and then allocated proportionately to the remaining carrying amounts of the CGU.

Impairment losses on goodwill are not reversed. For other assets, the reversal of impairment losses is limited to a maximum of amortized cost.

Classification by Maturity

Zeppelin classifies assets and liabilities in the balance sheet according to maturity.

Assets and liabilities are classified as current if their realization is expected within twelve months of the reporting date. All other assets and liabilities are classified as non-current.

Bank liabilities under the syndicated credit facility of Zeppelin GmbH are reported under non-current liabilities insofar and as long as the remaining term of the syndicated credit facility agreement at the reporting date is at least 12 months.

Sales from Contracts with Customers

Zeppelin recognizes sales when performance obligations to customers are met by the transfer of an agreed good or the provision of an agreed service.

Sales are measured at the transaction price. The transaction price is the consideration expected to be received by the Group for the transfer of the goods or provision of the services. Variable transaction price components such as rebates, cash discounts, contractual penalties, or customer bonuses reduce sales.

Customer payments are generally due upon performance or as milestone payments according to specific payment schedules.

With a few exceptions, Zeppelin generates sales in the project business based on the progress on work performed over a given period.

Zeppelin recognizes sales from services at a point in time and over time. In the case of time-based service provision, sales are recognized at the amount of the billable consideration after the service has been rendered. Period-based sales recognition is done either according to the performance progress or at the amount of the billable consideration.

If a specified threshold value is exceeded, the performance progress is determined at the ratio of the costs incurred in the period to the estimated total costs. Below this threshold, sales may not be realized in excess of the costs incurred during the period. Contract amendments may result in both adjustments to the transaction price and adjustments to the performance progress.

Sales from selling products for which Zeppelin has a repurchase obligation (hereinafter "RPO transactions") are recognized as a sale with right of return or as a lease, depending on the contractual arrangements between the sales financing partner and the end customer. If the agreement between the sales financing partner and the end customer includes an option to return the contractual item, it is accounted for as a sale with a right of return. On the other hand, if the agreement contains an obligation for the sales financing partner to take back the asset, it is accounted for as a lease.

For disposals deemed sales with the right of return, Zeppelin estimates the return rate at the time of sale and reduces the proceeds from the sale by the present value of the agreed repurchase prices in accordance with this rate. The present value of the repurchase prices is carried as a liability as a repurchase obligation. The amount of the repurchase obligation is reassessed in each period. Changes in estimates lead to sales corrections in the current financial period. If the right of return is not exercised at the end of the contract term, the repurchase obligation is reversed through the statement of profit or loss against the realization of sales.

For disposals deemed as leases, the proceeds from the disposal are deferred in full – partly as a financial liability, partly as deferred sales – on the liabilities side. The present value of the repurchase prices is carried as a financial liability. The difference between the proceeds from the disposal and the financial liability is carried on the liabilities side as deferred sales and recognized as rental income and interest income on a straight-line basis over the term of the contract.

Rental income relates primarily to operating leases. Income from operating leases is recognized on a straight-line basis over the term of the lease.

Income from warranty extensions is deferred as a liability and recognized on a straight-line basis over the term of the contract.

Construction Equipment CE SBU

The business activities of the Construction Equipment CE SBU mainly comprise the sale, rental, and servicing of construction machines (partly with extended warranty). Contracts from the sale of construction machines and services are not combined.

Sales from selling construction machines are recognized upon delivery and transfer of control to the customer. For bill-and-hold agreements, sales are recognized upon invoicing.

Sales may also be made as RPO transactions. The timing of sales recognition in these cases depends on whether the transaction is classified as a sale with right of return or as a lease.

Sales from service contracts are recognized at a point in time and over time.

Construction Equipment Eurasia SBU

The business activities of the Construction Equipment Eurasia SBU mainly comprise the sale, rental, and servicing of construction machines and agricultural equipment (partly with extended warranty). Contracts from the sale of construction machines and agricultural equipment and services are not combined. Russia's war of aggression on Ukraine led to a high level of uncertainty worldwide and especially in the Eurasian region. Russian economic growth has collapsed since the start of the war, which is reflected in particular in a decline in Russian imports caused by economic sanctions and lower volumes of exports. International isolation is significantly restricting the Russian market. The embargo imposed on Belarus by the West is also causing a decline in economic output in this country. Ukraine is severely affected economically by Russia's war of aggression and relies on extensive international support. Against this backdrop, Zeppelin's business activities in the Construction Equipment Eurasia SBU have declined significantly and in some cases discontinued entirely until further notice.

Sales from the selling of construction machines and agricultural equipment are recognized upon delivery and transfer of control to the customer.

Sales may also be made as RPO transactions. The timing of sales recognition in these cases depends on whether the transaction is classified as a sale with right of return or as a lease.

Sales from service contracts are recognized at a point in time and over time.

Construction Equipment Nordics SBU

The business activities of the Construction Equipment Nordica SBU primarily comprise the sale, rental, and servicing of construction machines and mining equipment (partly with extended warranty). Contracts from the sale of construction machines and services are not combined.

Sales from the selling of construction machines and mining equipment are recognized upon delivery and transfer of control to the customer.

Sales may also be made as RPO transactions. The timing of sales recognition in these cases depends on whether the transaction is classified as a sale with right of return or as a lease.

Sales from service contracts are recognized at a point in time and over time.

Rental SBU

The Rental SBU rents out construction machines as well as a wide range of construction equipment, modular room systems, construction site and traffic guidance systems, work platforms, forklifts and lifts, and vehicles. In addition, a comprehensive range of services is offered, including in project business.

Rentals and services represent separate performance obligations. The transaction price is allocated to the individual performance obligations on the basis of the contracted prices.

The rental business is carried out by way of an operating lease.

Sales from services are recognized at a point in time and over time.

Sales from the project business are recognized at the time of invoicing at the amount of the chargeable consideration.

Power Systems SBU

The business activities of the Power Systems SBU comprise the distribution and service of engine and drive solutions (some with extended warranties). In addition, services in the project business are provided through the sale of, inter alia, generating sets for power generation and combined heat and power plants.

Sales from selling engines and drive solutions are recognized upon delivery and transfer of control to the customer. In the case of delivery to consignment warehouses, sales are recognized at the time the consignment is delivered to the warehouse, as control passes to the customer at this time.

Sales from servicing are recognized at a point in time and over time.

Sales from the project business are mainly recognized over time according to the performance progress.

If a customer receives the option to purchase additional engines at fixed prices at the time the contract is concluded, part of the transaction price is allocated to this option and realized when the option is exercised or lapses.

Plant Engineering SBU

The business activities of the Plant Engineering SBU comprise the development, implementation, and manufacture of customer-specific plants for the storage and processing of high-quality bulk materials, and the development and manufacture of components. In addition, the SBU offers various after-sales and quality services.

Sales from the project business are recognized over time according to the performance progress.

If only development services are offered, sales are recognized when control over the development results is transferred to the customer.

Sales from the selling of components are recognized upon delivery and transfer of control to the customer.

Sales from quality services are recognized at the time of invoicing at the amount of the charged consideration.

Sales from after-sales services are recognized at a point in time and over time.

INCOME TAXES

The tax expense for the period consists of current and deferred taxes. Taxes have been recognized in the statement of profit or loss unless they relate to items recognized directly in equity or in other comprehensive income. In this case, the taxes have been recognized in equity or in other comprehensive income.

The current tax claims and tax liabilities are determined in accordance with the tax regulations applicable on the reporting date.

Offsetting of current tax assets and liabilities is permitted only if the Group has a legally enforceable right to set off current tax assets against current tax liabilities and the tax assets and liabilities relate to income taxes levied by the same tax authority either on the same taxable entity or on different taxable entities. This means tax entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

For uncertain income tax items, the best estimate is the probable expected tax payment.

Deferred taxes are recognized for temporary differences between the carrying amounts under IFRS and the tax base of assets and liabilities, and for tax loss carryforwards and tax credits. Deferred taxes are not recognized for temporary differences arising on initial recognition of an asset or liability if the assets or liabilities result from a transaction that is not a business combination and, at the time of the transaction, affects neither profit or loss before tax nor taxable income.

Zeppelin recognizes deferred tax assets only to the extent that it is probable that future taxable result will be available against which the deductible temporary differences and unused tax losses and credits can be offset. Zeppelin tests deferred tax assets for impairment at each reporting date.

Deferred tax liabilities arising from temporary differences in connection with participations in subsidiaries, associates and interests in joint ventures are recognized by Zeppelin, unless the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates which, according to current estimates, apply in accordance with the current legal situation.

Deferred tax assets and deferred tax liabilities are offset if they relate to the same tax authority and the same taxable entity or to a group of different taxable entities that are jointly assessed for income tax purposes. Deferred taxes from short-term temporary differences are not offset with deferred taxes from long-term temporary differences.

INVENTORIES

Inventories are carried at the lower of cost or net realizable value. In addition to directly attributable direct costs, production costs also include overheads attributable to the production process.

Depending on the business model and market conditions, the portfolio value is determined using the first-in, first-out method or the average method.

INTANGIBLE ASSETS

Goodwill arising on business combinations is measured at the acquisition date at the excess of the consideration received for the shares acquired in the companies over the net assets acquired. The net assets correspond to the difference between the fair values of the acquired assets and the fair values of the assumed liabilities and contingent liabilities.

Goodwill is not subject to scheduled amortization but is tested for impairment annually or when there are indications that it may be impaired. Details of the annual impairment test are presented in the “Impairment Tests” section.

Expenses for the development of new products are carried on the assets side as development costs if the products are technically and economically feasible and intended for the Group’s own use or marketing, the expenses can be reliably measured, and sufficient resources are available to complete the development project.

Production costs of internally generated intangible assets include direct costs as well as overheads attributable to the development process. Development expenses that do not meet the criteria set out in the previous paragraph, and research expenses are recognized immediately in the statement of profit or loss. Internally generated intangible assets are amortized on a straight-line basis over their useful lives and written down if there are indications of impairment.

Individually acquired intangible assets are carried at cost.

Intangible assets acquired as part of a business combination are measured at fair value at the acquisition date.

Acquired intangible assets are amortized on a straight-line basis over their period of use and subjected to an annual impairment test if there are indications of impairment. Licenses and similar rights are amortized over their contractual terms. Other useful lives are as follows:

	Useful life
Software, concessions, and industrial property rights	3 – 10 years
Internally generated intangible assets	5 years

Useful lives and residual values are reassessed at each reporting date and adjusted if necessary.

Apart from goodwill, Zeppelin does not recognize any intangible assets with indefinite useful lives.

Subsequent expenses are recognized in the statement of profit or loss if they cannot be capitalized.

Property, Plant, and Equipment

Property, plant, and equipment is initially recognized at cost and subsequently measured at amortized cost less accumulated depreciation and accumulated (non-scheduled) impairment losses. Reversals of impairment losses are recognized up to the amount of the amortized cost. In addition to directly attributable direct costs, production costs also include overheads attributable to the production process.

Expenses for maintenance and repairs are recognized in the statement of profit or loss unless they are capitalized as subsequent acquisition or production costs.

Property, plant, and equipment is depreciated on a straight-line basis over its estimated useful life to its expected residual value. The useful lives of property, plant, and equipment are reassessed at each reporting date and adjusted if necessary. Land is not depreciated.

The estimated useful lives of significant property, plant, and equipment for 2022 are:

	Useful life
Building	5 – 60 years
Technical equipment and machinery	2 – 25 years
Operating and business equipment	2 – 20 years
Rental fleet	3 – 10 years

Leasehold rights are depreciated on a straight-line basis over the term of the agreement.

Borrowing Costs

If a considerable period of time elapses before a tangible asset or intangible asset is ready for operation, the borrowing costs directly attributable to the acquisition or production of the asset are capitalized. The recognition of borrowing costs begins at the commencement of acquisition or production and ends when the asset is ready for operation.

Financial Instruments

Financial instruments are contracts that give rise to a financial asset of one party and a financial liability or equity instrument of the other. These include both primary financial instruments (e.g. trade receivables, borrowings, cash and cash equivalents, loans and bonded loans, trade payables, and other liabilities) and derivative financial instruments (interest rate swaps, currency swaps, and forward exchange operations).

Primary financial instruments are initially recognized when they are purchased or sold on the settlement date and derivative financial instruments are initially recognized on the trading date.

A financial asset is derecognized when the contractual rights to cash flows from the asset expire or the rights to receive the cash flows and all significant opportunities and risks of ownership of the financial asset are transferred to another entity. Derecognition does not take place if all significant opportunities and risks are retained or if, in the event of risk sharing, control over the asset is retained. The retained portion of such financial assets is recognized separately as a financial asset and/or financial liability (continuing involvement).

Financial liabilities are derecognized when all contractual obligations have been met, canceled, or lapsed.

Financial assets are grouped into the following categories for measurement and reporting purposes:

- Measured at amortized cost (“AC”), which at Zeppelin includes in particular cash and cash equivalents, trade receivables and other receivables, as well as loans;
- Measured at fair value through profit or loss (“FVTPL”), which at Zeppelin includes in particular participations, interests in non-consolidated subsidiaries, and all derivatives with a positive fair value that are not accounted for in accordance with hedge accounting rules.

The following categories exist for the measurement and reporting of financial liabilities:

- AC, which at Zeppelin includes in particular loans and bonded loans, trade payables, and other liabilities;
- FVTPL, which at Zeppelin includes in particular all derivatives with a negative fair value that are not accounted for in accordance with hedge accounting rules.

The consolidated financial statements do not include financial instruments at fair value through other comprehensive income (“FVOCI”).

Financial assets are allocated to the AC category if they are held exclusively to collect the contractual cash flows and the contractual payments relate exclusively to interest and principal repayments.

With few exceptions, all financial liabilities are classified as AC that do not have to be classified as FVTPL or are accounted for under hedge accounting rules.

Financial assets and financial liabilities are allocated to the FVTPL category if they are held exclusively for trading purposes. Under certain conditions it would also be possible to allocate financial instruments to this category by exercising an accounting option – the fair value option – although these financial instruments would actually have to be accounted for in accordance with the rules for the AC category. However, Zeppelin does not exercise the fair value option.

Zeppelin categorizes all financial assets and financial liabilities at the date of acquisition and periodically reassesses whether the criteria for classification are still met.

Upon initial recognition, financial instruments are measured at fair value, for financial asset or financial liabilities that are not measured at FVTPL, plus or less any directly attributable transaction costs.

The fair value generally corresponds to the transaction price. The fair value of financial assets and financial liabilities in the AC category with maturities of more than twelve months that do not bear interest or bear interest at low rates corresponds to the present value of the agreed cash flows. The present value is determined using a discount rate appropriate to the term. An exception exists for trade receivables without significant financing components. These are measured on initial recognition at the amount of the unconditional claim to consideration.

Financial assets and financial liabilities in the AC category are subsequently measured using the effective interest method. Using the effective interest method, all directly attributable fees, consideration paid or received, transaction costs, and other premiums or discounts included in the calculation of the effective interest rate are amortized over the expected term of the financial instrument.

Interest income and expenses from the application of the effective interest method are recognized in the income statement under interest income or interest expenses from financial instruments.

Financial assets and financial liabilities in the FVTPL category are subsequently measured at fair value, with changes in value recognized in the statement of profit or loss.

Derivatives embedded in contracts where the underlying is a financial asset are never accounted for separately. Instead, the hybrid financial instrument is assessed as a whole with regard to its classification. Embedded derivatives whose underlying contract is a financial liability are separated from the underlying contract and accounted for separately under certain conditions (e.g. loans with interest rate agreements that include a floor).

Zeppelin reports financial assets and financial liabilities gross. They are only offset if at the present time there is an enforceable right to set off with respect to the amounts and it is intended to settle them on a net basis.

Impairments

The calculation of loss allowances for financial assets in the AC category (as well as for contract assets from agreements with customers) is based on a forward-looking model taking into account expected credit defaults.

For non-performing financial assets, loss allowances are recorded at the gross amount. A financial asset is classified as non-performing ("definition of default") if there are significant reasons to believe that a debtor is unlikely to meet its payment obligations to Zeppelin.

Financial assets are derecognized when they are irrecoverable, for example as a result of the conclusion of insolvency proceedings.

All financial assets that are neither non-performing nor irrecoverable are collectible. These financial assets are written down at the time of initial recognition in accordance with the 12-month expected credit loss (hereinafter "12-month ECL"). In the event of a significant deterioration in creditworthiness, they are written down by the amount of the expected credit loss by maturity (hereinafter "lifetime ECL").

For trade receivables and contract assets, a simplified approach is applied in which only the lifetime ECL plays a role (hereinafter "simplified approach"). Under this approach, risk categories are created and assigned different impairment rates. The Group companies determine the default risk according to individual approaches, taking into account country and business area-specific risks. The companies use data from market data portals (including Creditreform), historical default rates, and customer-specific, forward-looking credit risk analyses.

In addition, all financial assets in the AC category (and contract assets from agreements with customers) are tested for individual impairment indicators at each reporting date. Financial assets are considered impaired if, as a result of one or more events occurring after the initial recognition of the asset, there is objective evidence that the expected future cash flows have changed negatively.

Objective evidence of an impairment can be various facts such as late payment over a certain period of time, initiation of enforcement measures, imminent insolvency or over-indebtedness, application for or opening of insolvency proceedings, or failure of restructuring measures.

Trade receivables that are already impaired upon initial recognition are carried at the net carrying amount.

Hedge Accounting

Zeppelin uses derivative and foreign currency components of primary financial instruments to hedge cash flows against interest rate and exchange rate fluctuations and to hedge fair value against interest rate fluctuations. However, the requirements for hedge accounting are applied only when the conditions for hedge accounting are met. For reasons of practicability, hedge accounting is only applied to hedges of exchange rate risks if a certain period-related threshold for the nominal volume of hedging transactions without hedge accounting is exceeded. The threshold is derived from an upper limit for the potential impact of the failure to apply hedge accounting on consolidated net profit after tax and the period accrual of expenses and income. Zeppelin designates all derivative components with a few exceptions relating to the Plant Engineering SBU.

Hedge accounting can only be applied if there is a clear hedging relationship between the hedged item and the hedging instrument with demonstrable, sufficient effectiveness. The hedging relationship must be formally documented and its effectiveness demonstrated upon initial recognition as a hedging relationship and subsequently on a quarterly basis.

The hedging relationship meets all hedge effectiveness requirements if

- the value of the hedging transaction moves in the opposite direction to the value of the hedged item,
- the credit risk does not have a dominant influence on the hedging relationship, and
- the hedging ratio of the hedging relationship reported in the balance sheet corresponds to the actual hedging ratio.

The effectiveness of hedging relationships is demonstrated by prospective effectiveness tests. In the case of currency hedges, the prospective effectiveness test is based on a comparison of the main terms of the hedging transaction with the main terms of the hedged item; in the case of interest rate hedges it is based on a statistical method (regression analysis).

Where hedge accounting is applied to derivatives or to the foreign currency component of primary financial instruments used to hedge against the risk of fluctuating cash flows ("cash flow hedges"), the effective portion of changes in the fair value of the derivative are recognized in other comprehensive income and reported in the accumulated other comprehensive income for hedge accounting. The effective change in value is the smaller of the cumulative change in value of the hedging instrument and the cumulative change in value of the hedged item. The undesignated and ineffective portion of the change in value continues to be recognized in the statement of profit or loss. If the hedging transactions relate to cash flows from operating activities, the portion of the change in value recognized in the statement of profit or loss is reported under other expenses and income. Otherwise, they are reported under other financial expenses and income.

Effectiveness is the degree to which the changes in value of the hedged item and the hedging instrument offset each other. The effective and ineffective portions of the change in value are determined using the cumulative dollar offset method.

The amount recognized in accumulated other comprehensive income is reclassified to the statement of profit or loss in the same period or periods in which the hedged expected cash flows or hedged item affect the profit or loss.

Hedge accounting is discontinued as soon as a forecast transaction is no longer probable and the hedging instrument no longer meets the criteria for hedge accounting, expires, or is sold, terminated, or exercised. The hedging transaction is henceforth be accounted for in accordance with the rules for financial assets and financial liabilities in the FVTPL category. If a forecast transaction is no longer expected to occur, the amount previously recognized in accumulated other comprehensive income for hedge accounting is immediately reclassified to the statement of profit or loss. In all other respects, the reclassification of the amounts previously recognized in accumulated other comprehensive income for hedge accounting follows the same principles as for continuing cash flow hedges.

In the case of hedging relationships used to hedge changes in the fair value of assets, liabilities, or off-balance-sheet firm commitments (hereinafter "fair value hedges"), the changes in the fair value of the hedged item attributable to the risk, and the changes in the fair value of the hedging derivative are recognized in the statement of profit or loss and reported net. For financial instruments measured at amortized cost, the cumulative adjustments are amortized over the (remaining) term.

Fair Value

Fair values are determined on the basis of a three-level hierarchy based on the proximity of the valuation factors used to an active market (hereinafter the "fair value hierarchy"). A market is referred to as "active" if quoted prices are readily and regularly available on that market and these prices are based on actual, regularly occurring market transactions.

Level 1: The fair value corresponds to a price for identical assets and liabilities quoted on active markets (unchanged).

Level 2: The fair value is based on market data that is either directly or indirectly observable for the asset or liability and that does not represent quoted prices under Level 1.

Level 3: The fair value is based on input data that is not quoted prices under Level 1 and not derived from directly or indirectly observable market data.

The fair values of Levels 2 and 3 are determined using financial valuation methods (e.g. discounted cash flow models). They correspond to the prices that would be received between independent market participants for the sale of an asset or paid for the transfer of a liability.

The fair values underlying these consolidated financial statements have been determined on the basis of the market conditions prevailing on the reporting date.

Reclassifications between the levels of the fair value hierarchy require a separate explanation in the notes to the consolidated financial statements. The periods covered by these consolidated financial statements do not include any reclassifications between hierarchical levels.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash (cash on hand and bank balances) and cash equivalents. Cash equivalents are short-term, highly liquid financial investments with initial maturities of less than 3 months that can be converted into fixed cash amounts at any time and subject to insignificant fluctuations in value.

EMPLOYEE BENEFITS

Obligations for short-term employee benefits are recognized as personnel expenses as soon as the related work is performed. In addition, a liability is recognized for performance already provided by the employee if there is a legal or constructive obligation to pay that benefit at the reporting date and the amount of the obligation can be reliably estimated.

Post-employment benefits include defined contribution and defined benefit plans.

For defined contribution plans, Zeppelin's obligation is limited to the payment of fixed contributions. The pension payments themselves are made by an external institution (e.g. an insurance company) without triggering further obligations for Zeppelin. All other forms of pension provision are defined benefit plans. This also applies to pension provision covered by pension plans if Zeppelin is obliged to make additional payments to achieve a guaranteed minimum return.

Payments for defined contribution plans are recognized as personnel expenses in the period in which the related work is performed. Prepaid contributions are recognized as an asset to the extent that there is a right to reimbursement or reduction of future payments.

In the case of defined benefit plans, the obligations are determined annually using the projected unit credit method by actuarial valuation. For each plan, economic trend assumptions (e.g. salary and pension trends) are taken into account in addition to estimates of the future benefits which the employees have tendered in the current and previous periods. This amount is discounted at a discount rate appropriate to the term and offset against the fair value of the plan assets. The discount rate used to determine the actuarial present value of promised retirement benefits is determined on the basis of returns at the reporting date on high-quality fixed-rate corporate bonds denominated in the same currency and with the same maturity as the benefit entitlements earned at the measurement date.

Any excess of plan assets over pension obligations resulting from this calculation is limited in amount to the present value of the economic benefits available in the form of repayments or reductions in future contributions. When calculating the present value of an economic benefit, applicable minimum funding requirements must also be taken into account.

Gains and losses from the revaluation of the pension obligation are recognized directly in other comprehensive income. The revaluation includes the actuarial gains and losses, the return on plan assets (excluding interest), and the effect of any asset ceiling (excluding interest). The service cost, which represents the additional entitlements of employees acquired in the financial year, is part of personnel expenses. The interest result, which is calculated as the imputed interest on the basis of the actuarial interest rate applicable to the net obligation or net assets at the beginning of the financial year, is recognized in the net financial result.

Past service cost and gains and losses on plan settlements are recognized immediately as personnel expenses in the period in which the change, curtailment, or settlement occurs.

Other long-term employee benefits mainly comprise anniversary provisions and provisions for partial retirement obligations. Valuation is based on the valuation principles for defined benefit pension plans. Obligations from partial retirement agreements are offset against the fair value of the plan assets. A surplus of assets is reported under other assets. Effects from revaluations are recognized in personnel expenses in the period in which they arise.

Termination benefits are recognized as an expense at the earlier of the following two dates: when Zeppelin can no longer withdraw the offer or when the restructuring measures have been decided and communicated. If it can be assumed that the benefits will not be settled in full within twelve months of the reporting date, they must be discounted.

OTHER PROVISIONS

Other provisions are recognized for all currently identifiable risks and contingent liabilities that will result in a future economic burden and the amount of which can be reliably estimated.

Provisions are recognized at the amount required to settle the obligations on the basis of the best estimate. Non-current provisions are recognized at present value if the effect of discounting is material.

LEASE

Zeppelin acts as both lessee and lessor.

Accounting as Lessee

As lessee, Zeppelin generally recognizes a right of use and a corresponding lease liability for each lease.

Zeppelin makes use of the exemptions for short-term leases with a term of less than twelve months and leases for low-value assets. Expenses arising from these leases are recognized as expenses on a straight-line basis over the term of the contract.

Zeppelin does not make use of the option to combine leasing and non-leasing components.

Rights to use intangible assets are accounted for in accordance with the rules for intangible assets.

Rights of use arising from leases are initially measured at cost. Cost comprises the initial carrying amount of the lease liability plus any lease payments made before or at the beginning of the lease less any incentive payments and plus any initial direct costs.

The rights of use are subsequently measured at amortized cost less cumulative scheduled depreciation and cumulative impairment losses. Depreciation is charged over the shorter of the useful life of the rights of use or the term of the lease. If ownership of the leased asset is transferred to Zeppelin (through the exercise of an option or other contractual arrangement), it is depreciated over the (remaining) useful life of the leased asset.

The initial and subsequent measurement of lease liabilities are based on the present value of the minimum lease payments outstanding at the reporting date. Interest expenses are spread over the term in such a way as to produce a constant interest rate.

Lease payments are discounted at the interest rate implicit in the lease. If this is not known or not available, the lessee's incremental borrowing rate is used.

Accounting as Lessor

With regard to accounting as lessor, a distinction is made between operating leases and finance leases.

In the case of finance leases, the material opportunities and risks arising from ownership of the leased asset are transferred to the lessee. This results in the recognition of a receivable at the amount of the present value of future lease payments to be made.

If the opportunities and risks remain with Zeppelin, an operating lease exists and the leased assets are measured at amortized cost and reported under "Rental fleet". Leased assets are depreciated in accordance with the rules for property, plant, and equipment. The lease payments are recognized in the statement of profit or loss under rental income on a straight-line basis over the remaining term of the contract.

Sale-Leaseback Transactions

The sale-leaseback transactions (hereinafter "SLB") entered into by Zeppelin for refinancing purposes include tender rights. There is no transfer of control. Assets that are the subject of such agreements remain under property, plant, and equipment. Zeppelin recognizes payment obligations arising from SLB transactions as liabilities at their present value. They are discounted at the implicit interest rate.

D Discretionary Decisions and Estimates

The preparation of IFRS consolidated financial statements requires that discretionary decisions and assumptions be made about future events that affect the recognition and measurement of assets and liabilities. In individual cases, the actual values may deviate from the discretionary decisions and estimates. Changes are recognized at the time they become known in accordance with the accounting and valuation methods applicable to the respective assets and liabilities. This applies in particular to the following assets and liabilities.

The uncertainties and the unknowns caused by Russia's war on Ukraine have an impact on the measurement of assets and liabilities, which are subject to a higher degree of discretion, which is reflected in particular in the loss allowances on property, plant and equipment and current assets as well as in the formation of provisions.

Zeppelin performs annual impairment tests for all cash-generating units that contain goodwill. The impairment tests are based on assumptions regarding the development of cash flows and the weighted average cost of capital (WACC) of the respective unit.

The carrying amounts of property, plant and equipment, and intangible assets are based on assumptions regarding useful lives and residual values. In the case of the rental fleet from RPO transactions without a purchase option, the residual value estimates are based on assumptions about the development of the residual values of the machines underlying the transactions.

The carrying amount of the return rights from RPO transactions with purchase options is based on assumptions about the development of the residual values of the machines underlying the transactions at the time the options are exercised and about the development of the return rate.

Contract assets and liabilities from sales recognition based on performance progress are based on assumptions about the expected total contract costs.

In determining the impairment of financial assets measured at amortized cost, assumptions are made about the expected solvency of the respective debtors.

The recognition of deferred tax assets is based in part on expectations about the development of the taxable income of the respective taxable entity.

Other provisions are based on assumptions and estimates regarding the occurrence, amount, and timing of the respective obligations. Details about the assumptions and estimates underlying the provisions are given in Note 23.

Where observable fair values are not available, the fair value of assets and liabilities acquired in a business combination is measured using recognized valuation techniques, such as the residual value method. The measurement of value involves estimates by management. The result forecast on the basis of these estimates is influenced, for example, by interest rate movements, fluctuations in exchange rates, and the expected economic performance. They may also be influenced by current geopolitical and macroeconomic conditions.

E Notes to the Consolidated Statement of Profit or Loss

1 Sales

Sales from contracts with customers are broken down by SBU, product, and type of sales recognition as follows:

	2022								
in kEUR	Construction Equipment CE	Construction Equipment Eurasia	Construction Equipment Nordics	Rental	Power Systems	Plant Engineering	Holding company	Consolidation	Group
Sales									
Earthmoving equipment	775.983	274.326	149.277	0	0	0	0	-3.049	**1.196.537**
Earthmoving equipment (used)	290.619	41.082	35.175	0	0	0	0	-2.908	**363.968**
Rental business	1.490	866	2.195	329.082	0	0	12.580	-36.704	**309.510**
Forklifts	20.759	428	0	56.063	0	0	0	-735	**76.515**
Power Systems	0	0	0	0	193.279	0	0	-2.998	**190.282**
Agricultural equipment	0	22.113	0	0	0	0	0	0	**22.113**
Production plants	0	0	0	0	0	94.291	0	0	**94.291**
Processing plants and mixers	0	0	0	0	0	230.350	0	-57	**230.293**
Systems for the food industry and liquids handling	0	0	0	0	0	84.462	0	0	**84.462**
Components and site equipment	0	0	0	71.155	0	16.879	0	-564	**87.471**
Spare parts	283.862	163.139	56.075	0	179.212	0	2.513	-39.925	**644.876**
Customer service	131.183	23.231	49.055	113.695	69.928	67.225	0	-11.240	**443.076**
Miscellaneous	12.458	0	0	96.323	0	0	0	-15.029	**93.752**
Zeppelin GmbH	0	0	0	0	0	0	55.529	-54.523	**1.007**
	1.516.354	**525.184**	**291.778**	**666.318**	**442.419**	**493.207**	**70.622**	**-167.731**	**3.838.152**

in kEUR	2021								
	Con-struction Equip-ment CE	Con-struction Equip-ment Eurasia	Con-struction Equip-ment Nordics	Rental	Power Systems	Plant En-gineering	Holding company	Consoli-dation	Group
Sales									
Earthmoving equipment	832.238	338.376	154.479	0	0	0	0	-4.834	**1.320.258**
Earthmoving equipment (used)	267.446	40.380	40.159	0	0	0	0	-1.802	**346.183**
Rental business	1.160	1.082	1.302	296.750	0	0	6.730	-32.847	**274.177**
Forklifts	23.033	295	0	46.952	0	0	0	-292	**69.988**
Power Systems	0	0	0	0	213.478	0	0	-2.725	**210.753**
Agricultural equipment	0	23.390	0	0	0	0	0	0	**23.390**
Production plants	0	0	0	0	0	93.873	0	0	**93.873**
Processing plants and mixers	0	0	0	0	0	123.187	0	0	**123.187**
Systems for the food industry and recycling	0	0	0	0	0	58.439	0	0	**58.439**
Components and site equipment	0	0	0	67.600	0	9.463	0	-251	**76.812**
Spare parts	244.041	208.181	50.562	0	153.747	0	1.763	-33.943	**624.351**
Customer service	118.409	30.686	45.933	85.093	69.698	54.929	0	-10.398	**394.351**
Miscellaneous	7.882	0	0	79.672	0	0	0	-8.639	**78.916**
Zeppelin GmbH	0	0	0	0	0	0	47.850	-46.940	**910**
	1.494.208	**642.390**	**292.436**	**576.068**	**436.924**	**339.890**	**56.343**	**-142.671**	**3.695.587**

A breakdown of sales by domestic and foreign entities is presented below:

in kEUR	2022	2021
Sales		
Domestic entities	2,131,555	1,992,892
Foreign entities	1,706,597	1,702,696
	3,838,152	**3,695,587**

The following table shows the value of all or part of the unfulfilled obligations arising from contractual relationships with customers as of the respective reporting date (hereinafter “order backlog”)[2] and the periods during which Zeppelin expects to realize sales from this order backlog.

in kEUR	Sub-sequent year	2nd to 5th sub-sequent year	There-after	Total
31.12.2022	1.703.557	240.285	6.718	**1.950.559**
31.12.2021	1.545.508	216.473	6.950	**1.768.931**

[2] According to IFRS, the order backlog only includes order relationships with fixed consideration agreements and secure receipt of consideration.

2 Cost of Sales

The cost of sales comprises:

in kEUR	2022	2021
Cost of sales		
Cost of materials	-2,583,553	-2,526,969
Personnel expenses	-454,686	-426,920
Depreciation	-74,124	-72,832
Other expenses	-162,385	-136,094
	-3,274,748	**-3,162,816**

3 Other Income

The other income comprises:

in kEUR	2022	2021
Other income		
Handling margin from SLB/SMB transactions	3,788	2
Reimbursements	10,548	4,691
Book gains from asset disposals	3,550	2,238
Release of provisions and other liabilities	6,731	9,955
Rents and leases	194	205
Exchange rate gains	26,507	7,413
Income from derecognized receivables	1,812	1,041
Insurance compensation and indemnity payments	16,433	14,405
Other operating income	19,106	12,390
	88,669	**52,340**

Other operating income increased in particular due to handling margins from newly concluded sale and rent-back transactions, but also higher exchange rate gains from the RUB/USD, UAH/USD and USD/EUR currency pairs, as well as due to cost reimbursements for trade fair costs by Caterpillar. The increase in income from insurance compensation was in line with the growth in the rental business.

4 Other Expenses

Other expenses include:

in kEUR	2022	2021
Other expenses		
Losses from asset disposals	-5.484	-2.493
Exchange rate losses from foreign currency valuation	-35.625	-9.050
Expenses from the derecognition of financial instruments	-568	-657
Claims expenses for motor vehicles, machines, and other	-4.793	-4.972
Donations	-803	-704
Other taxes	-3.075	-3.369
Expenses for bank and guarantee fees, financial expenses	-2.068	-2.022
Services	0	-460
Miscellaneous	-6.536	-7.022
	-58.952	**-30.749**

The increase in other operating expenses was due in particular to higher currency losses. This was mainly the result of the currency pairs RUB/USD and USD/EUR. In addition, the higher losses from asset disposals resulted in particular from the Construction Equipment Eurasia SBU.

5 Personnel Expenses

Personnel expenses include:

in kEUR	2022	2021
Personnel expenses		
Wages and salaries	-605,965	-566,438
Social security contributions	-130,527	-117,931
Post-employment benefits	-8,732	-7,634
	-745,225	**-692,003**

The average number of employees during the year was:

Full-time equivalents	2022	2021
Employees		
Sales, marketing	1.834	1.766
Service (spare parts and after-sales)	4.872	4.967
Engineering, order processing, materials management, logistics	1.194	1.122
Production, assembly, quality management	775	770
Administration	1.544	1.500
Trainees and apprentices	339	332
	10.557	**10.458**

6 NET FINANCIAL RESULT

The net financial result consists of the interest result and other financial result and includes the following income and expenses:

in kEUR	2022	2021
Net financial result		
Interest result		
Interest income		
from financial instruments	5,488	1,811
from discounting	2,925	2,401
from loans to affiliates	4	0
from interest rate derivatives	8	0
	8,425	**4,212**
Interest expenses		
from financial instruments	-17,118	-12,196
from discounting	-2,510	-1,658
from lease agreements	-3,295	-3,013
from interest rate derivatives	0	-309
	-22,923	**-17,177**
	-14,499	**-12,965**

in kEUR	2022	2021
Other financial result		
Other financial income		
Income from participations	1,799	3,257
Other income from financial instruments	16,781	7,684
	18,579	**10,942**
Other financial expenses		
Other expenses from financial instruments	-13,008	-7,757
Total other financial result	**-13,008**	**-7,757**
Total financial result	**5,571**	**3,184**
	-8,927	**-9,780**

Interest and similar income from financial instruments rose compared with the previous year, in particular from higher investments in connection with project business.

Interest expenses from financial instruments included EUR 14,802 thousand (2021: EUR 9,205 thousand) interest expenses from bank loans.

The expenses from discounting include interest expenses from the subsequent measurement of post-employment benefits and other long-term employee benefits amounting to EUR 434 thousand (2021: EUR 197 thousand), from the unwinding of the discount relating to other provisions amounting to EUR 126 thousand (2021: EUR 36 thousand), and contract assets and liabilities amounting to EUR 1,950 thousand (2021: EUR 1,425 thousand).

The increase in other income and expenses from financial instruments was mainly due to the hedging of foreign currency loans to subsidiaries and the fair value of interest rate derivatives not included in hedge accounting. In addition, there were currency gains and losses from a euro loan in Russia.

Gains and losses from the derecognition of financial assets measured at amortized cost are of minor significance.

Further information on the net financial result is provided in section G.

7 INCOME TAXES

The income tax expense is composed as follows:

in kEUR	2022	2021
Income taxes		
Current income tax	-31,354	-30,041
Deferred income tax	1,093	-11,465
	-30,261	**-41,506**

The income tax rate of 29.9% levied in Germany (previous year: 29.9%) comprised corporation tax (15.0%), trade tax (average 14.1%; previous year: 14.1%), and solidarity surcharge (5.5%).

The differences to the effective tax rate are explained as follows:

in kEUR	2022	2021
Net profit before tax	**134,631**	**159,505**
Tax rate %	29.88	29.89
Expected income tax expense	**-40,221**	**-47,672**
Different tax rates	5,640	11,500
Effect from tax rate changes	-6	-585
Taxes for previous years	5,866	960
Other non-deductible expenses and taxes, and effects from changes in permanent differences	-3,824	-9,915
Tax-free income	6,078	2,957
Change in the assessment of whether deferred tax assets can be recognized	-3,579	174
Miscellaneous effects	-215	1,075
Actual income tax expense	**-30,261**	**-41,506**
Effective tax rate %	22.48	26.02

The deferred tax rates shown in the following table are the result:

in kEUR	31.12.2022 Deferred tax assets	31.12.2022 Deferred tax liabilities	31.12.2021 Deferred tax assets	31.12.2021 Deferred tax liabilities
Recognition in the consolidated financial statements				
Deferred taxes before offsetting				
Cash and cash equivalents	3	0	0	0
Other financial assets and receivables (current)	5.418	10.693	5.187	11.102
Inventories	16.811	10.051	14.807	4.548
Financial assets (non-current)	1.174	5.085	1.185	5.217
Other financial assets and receivables (non-current)	731	13.249	171	13.515
Intangible assets	1.672	7.588	1.683	7.575
Property, plant, and equipment	3.741	167.771	8.007	163.843
Current liabilities	68.172	8.308	83.808	18.619
Current provisions	8.225	2.985	4.911	1.765
Non-current liabilities	128.190	232	110.120	62
Employee benefits	8.951	1.923	23.260	2.083
Non-current provisions	587	195	739	94
Loss carryforwards	7.597	0	5.428	0
Tax credits	973	0	1.776	0
	252.243	**228.081**	**261.082**	**228.423**
Valuation allowance	-5.954		-2.792	
Offsetting	-175.970	-175.970	-171.945	-171.945
	70.319	**52.111**	**86.345**	**56.478**

The change in deferred taxes includes differences from currency translation of EUR 457 thousand, which resulted in particular from exchange rate changes of the Russian ruble and the Brazilian real.

The current portion of deferred tax assets amounted to EUR 68,464 thousand (12/31/2021: EUR 75,828 thousand). The current portion of deferred tax liabilities amounted to EUR 1,616 thousand (12/31/2021: EUR 1,883 thousand). There were temporary differences on interests in subsidiaries, associates, and joint ventures amounting to EUR 11,400 thousand (12/31/2021: EUR 8,700 thousand), for which no deferred tax liabilities were recognized in the reporting periods presented. The differences would only become effective for tax purposes in the event of a sale of the participation, but no sale is intended in the foreseeable future.

Deferred tax assets of EUR 1,905 thousand (2021: EUR 0 thousand) and deferred tax liabilities of EUR 1,915 thousand (2021: EUR 0 thousand) from first-time consolidation were added in the financial year with no effect on profit or loss.

Deferred taxes recognized in equity with no effect on profit or loss amounted to EUR -6,858 thousand (2021: EUR 6,120 thousand).

In Germany, there were corporation tax loss carryforwards of EUR 9,434 thousand (12/31/2021: EUR 6,242 thousand), and trade tax loss carryforwards of EUR 9,423 thousand (12/31/2021: EUR 6,384 thousand). Overseas, there were loss carryforwards of EUR 28,373 thousand (12/31/2021: EUR 17,070 thousand).

As Zeppelin did not expect sufficient taxable profit to be available for offsetting in future periods at each reporting date, no deferred tax assets were recognized for the following items:

in kEUR	12/31/2022 Gross amount	12/31/2022 Value for tax purposes	12/31/2021 Gross amount	12/31/2021 Value for tax purposes
Deferred tax assets				
Deductible temporary differences	10,667	2,084	0	0
Tax loss carryforwards	23,723	3,869	17,481	2,792
thereof income tax and local income tax	14,797	2,615	11,537	1,890
thereof trade tax	8,926	1,255	5,944	902
	34,391	**5,954**	**17,481**	**2,792**

Due to existing uncertainties as a result of Russia's war against Ukraine with regard to the recoverability of deferred tax assets at companies in Russia and Ukraine, valuation allowances were made to the deferred tax assets on loss carryforwards and temporary balance sheet differences.

The unrecognized loss carryforwards expire as follows:

in kEUR	Amount	Indefinite	Expiry date Sub-sequent year	Expiry date 2nd to 5th sub-sequent year	Expiry date after the 5th sub-sequent year
31.12.2022	23.723	22.678	0	0	1.045
31.12.2021	17.481	16.751	0	0	730

For companies that had closed the current or prior period with a loss, deferred tax assets of EUR 13,432 thousand (12/31/2021: EUR 10,141 thousand) after offsetting with deferred tax liabilities were reported. This approach is based on management's assessment that the substantiated profit forecasts for subsequent years show that the companies will generate taxable profit in future which can be used to offset deductible temporary differences. Zeppelin assumes that, on the basis of profit planning, the existing loss carryforwards will be continuously reduced and used up in the respective planning periods. The profit forecasts are based on long-term secured contractual relationships with customers and corresponding order backlogs compared with previous years.

Pillar 2 Global Minimum Tax

In December 2021, the Organization for Economic Co-operation and Development (OECD) published GloBE regulations (Global Anti-Base Erosion Model Rules), better known as Pillar 2, with the aim of the global minimum taxation of multinational companies. The aim of minimum taxation is to achieve this by levying a top-up tax on profits in countries where the specifically effective tax rate is below the defined minimum tax rate of 15%. Within the EU, the regulations for corporate groups with a consolidated turnover of at least EUR 750 million will enter into force in 2023 and be applicable for the first time for the 2024 financial year.

The IASB responded to the imminent introduction of the GloBE regulations and published a draft amendment to the regulations of IAS 12 (ED/2023/1 International Tax Reform – Pillar Two Model Rules). This amendment proposes that the effects of the current or announced Pillar Two Model Rules are generally within the scope of IAS 12, but that the accounting for deferred taxes from the Pillar Two Model is temporarily waived. It is currently particularly unclear whether additional temporary differences will arise as a result of the Pillar Two Model, whether existing deferred taxes will have to be remeasured and which tax rate will be applied.

Further proposals by the IASB relate to explanatory notes regarding the time-based exemption from accounting for deferred taxes from the Pillar Two Model, the separate disclosure of the actual tax expense from the Pillar Two Model, and targeted disclosures for jurisdictions in which the corresponding provisions are already valid or announced, but are not yet applied.

The temporary exemption to accounting for deferred taxes and the corresponding disclosures in the notes must be applied retrospectively in accordance with IAS 8 after the publication of the (final) amendments to IAS 12.

Zeppelin does not expect any material effects from the application of the global minimum tax, as the majority of Group companies have tax rates above 15%.

8 Other Notes to the Consolidated Statement of Profit or Loss

Depreciation of property, plant, and equipment, and amortization of intangible assets are included in the following items of the consolidated statement of profit or loss:

in kEUR	2022	2021
Scheduled depreciation		
in the cost of sales	-63,400	-64,338
in the selling expenses	-11,145	-10,350
in the administrative expenses	-16,232	-13,250
in the research and development costs	-403	-395
	-91,180	**-88,332**

In terms of administrative costs, amortization of intangible assets rose, in particular due to the majority acquisition of Magdalena KITZMANN GmbH.

F Notes to the Balance Sheet

9 Cash and Cash Equivalents

A breakdown of cash and cash equivalents is shown below:

in kEUR	12/31/2022	12/31/2021
Cash and cash equivalents		
Cash in hand and bank	157,044	211,423
	157,044	**211,423**

Cash corresponds to cash and cash equivalents. The development of cash and cash equivalents is presented in the statement of cash flows.

10 Current Financial Assets

Current financial assets include[3]:

in kEUR	31.12.2022 FVTPL	31.12.2022 AC	31.12.2022 Miscella-neous
Cash and cash equivalents	**-**	**157.044**	**-**
Financial assets			
Derivatives	2.116	-	0
Loans	-	900	-
Continuing involvement	-	-	690
Other receivables	0	18.761	-
	2.116	**19.661**	**690**
Trade receivables	**-**	**439.285**	**-**

in kEUR	31.12.2021 FVTPL	31.12.2021 AC	31.12.2021 Miscella-neous
Cash and cash equivalents	**-**	**211.423**	**-**
Financial assets			
Derivatives	1	-	-
Loans	-	1.356	-
Continuing involvement	-	-	260
Other receivables	-	17.928	-
	1	**19.283**	**378**
Trade receivables	**-**	**431.653**	**-**

Derivatives include the fair values of interest rate derivatives that are not included in hedge accounting and were still negative in the previous year. It also includes the positive fair values from the hedging of foreign currency loans granted by Zeppelin GmbH to subsidiaries.

Trade receivables in the Russian and Ukrainian companies fell significantly compared with the previous year. This was due to active receivables management and also to declining business development.

Information on financial assets to related parties is provided in section H.

The carrying amounts of current financial assets correspond to their fair values.

For derivative financial instruments, future cash flows are determined using forward curves. In particular, exchange rates and yield curves are used, which can be observed on the relevant markets and obtained via market information systems. The fair value of these instruments corresponds to the sum of the discounted cash flows. The fair values determined for derivatives therefore fall under level 2 of the fair value hierarchy (see the “Fair Value” subsection in the “Financial Instruments” section under “C Accounting Policies”).

[3] Derivatives in hedge accounting and continuing involvement do not fall under any of the measurement categories of IFRS 9. They are therefore included in the “Miscellaneous” category.

Transfers of Receivables

The continuing involvement (assets and liabilities) included in the financial statements results from joint liability risks from risk-sharing agreements with sales financing partners.

In certain transactions, receivables from customers due in the short term are transferred to a sales financing partner against payment of consideration. This is generally a leasing company. This converts the short-term receivable into a financing transaction with the customer. Under certain conditions and within the framework of risk-sharing agreements, Zeppelin undertakes to share the credit default risk from the sales financing partner's financing transaction proportionately. The volume of receivables subject to risk sharing in the financial year 2022 was EUR 1,946 thousand (2021: EUR 2,067 thousand). The nominal amount of receivables with risk sharing as of the reporting date was EUR 10,873 thousand (12/31/2021: EUR 14,103 thousand). The maximum risk of loss resulting from these receivables was EUR 4,283 thousand (12/31/2021: EUR 6,413 thousand). The carrying amount and fair value of the continuing involvement recognized for this purpose were each EUR 4,275 thousand (12/31/2021: EUR 6,425 thousand). At the time of derecognition, the difference between the carrying amount of the receivable and the value of the continuing involvement was recognized in the statement of profit or loss. No fees were incurred for the conclusion of the contracts.

11 Contract Assets and Liabilities

The contract assets result primarily from the project business. Contract liabilities result from the project business, services, and warranty extensions.

in kEUR	12/31/2022	12/31/2021
Contract assets		
Project business		
Gross inventory	49,323	41,897
Loss allowances	-1,455	-2,754
	47,868	**39,142**
Other contracts		
Gross inventory	598	1,006
Loss allowances	0	0
	598	**1,006**
	48,466	**40,148**

in kEUR	12/31/2022	12/31/2021
Contract liabilities		
from the project business	190,035	152,216
from service contracts	31,818	35,527
from warranty extensions	70,059	95,948
	291,912	**283,690**

Changes in the balance of contract assets and liabilities from the project business may result from advance payments, interim and final settlements, sales recognition based on performance progress, adjustments to sales, performance obligations settled in prior periods, and exchange rate effects. Changes in the financial year amounting to EUR -872 thousand (2021: EUR -1,879 thousand) were attributable to adjustments of performance obligations met in previous periods. Zeppelin recognized proceeds of EUR 84,375 thousand (2021: EUR 45,688 thousand) for performance obligations included in contract liabilities from prior periods.

The balance of contract liabilities from service contracts represents the excess of service payments received from customers over the cumulative sales recognized from the rendering of services. Zeppelin recognized proceeds of EUR 28,088 thousand (2021: EUR 18,590 thousand) for performance obligations included in contract liabilities from prior periods.

The balance of contract liabilities from extended warranties represents the excess of warranty payments received from customers over the cumulative sales recognized from the rendering of warranty services. Zeppelin recognized proceeds of EUR 81,213 thousand (2021: EUR 35,992 thousand) for performance obligations included in contract liabilities from prior periods.

12 Other Assets

A breakdown of other assets is shown below:

in kEUR	12/31/2022		12/31/2021	
	Total	thereof current	Total	thereof current
Other assets				
Refund claims and advance payments for other taxes	6,997	6,997	8,648	8,648
Excess of plan assets over the defined benefit pension plans	939	383	338	0
Advance payments for wages and salaries	1,684	1,684	1,716	1,716
Repurchase rights from RPO transactions	41,582	12,248	42,482	11,494
Advance payments for warranty extensions	32,974	14,119	34,805	17,656
Advance payments for purchased services	1,957	1,395	3,206	1,539
Other advance payments	18,189	14,266	15,940	12,414
	104,322	**51,091**	**107,134**	**53,467**

Advance payments for purchased services mainly relate to advance rent payments for short-term rents or rents for low-value assets, warranty extensions, insurance and bank charges, which are not interest expenses, advance pension payments, and maintenance services. The miscellaneous other advance payments mainly relate to excise taxes.

13 Inventories

A breakdown of the carrying amount of inventories is shown below:

in kEUR	12/31/2022	12/31/2021
Inventories		
Raw materials, consumables, and supplies	41,173	25,124
Work in progress	59,110	53,013
Finished goods and merchandise	621,615	448,682
Advance payments on inventories	123,007	68,093
	844,906	**594,913**

EUR 2,164,774 thousand of inventories were recorded as material consumption (2021: EUR 2,153,030 thousand). Zeppelin recognized impairment losses on inventories of EUR 26,064 thousand in the financial year (2021: EUR 14,551 thousand) and realized reversals of impairment losses on inventories amounting to EUR 8,345 thousand (2021: EUR 6,520 thousand). Reversals of impairment losses on inventories result from disposals at prices that exceed the previously estimated net realizable value.

The inventory of machines, engines and spare parts in Ukraine and Russia fell sharply in line with business performance.

Of the impairment losses on inventories, EUR 10,407 thousand (previous year: EUR 2,328 thousand) and EUR 1,114 thousand (previous year: EUR 1,364 thousand) are attributable to inventories of companies in Russia and Ukraine.

14 Assets Held for Sale

Assets held for sale are composed as follows:

in kEUR	12/31/2022	12/31/2021
Assets held for sale		
Land and buildings	0	3,404
Technical equipment and machinery	0	11
Operating and business equipment	0	85
	0	**3,500**

The above-mentioned property, plant, and equipment were reclassified from non-current assets to current assets held for sale at the end of 2021. This was due to a decision by Zeppelin CZ s.r.o. to sell the site for the underground mining business in Ostrava. Immediately before this reclassification, these assets were impaired to the lower value in use by EUR 503 thousand. Upon final disposal on November 7, 2022, a sale price higher than expected was achieved, meaning that write-downs of EUR 925 thousand in total from previous write-downs under IAS 36 and IFRS 5 requirements could be written back. In addition, income of EUR 445 thousand was generated from the sale, which was reported in other operating income.

15 Non-Current Financial Assets

The carrying amounts and fair values of non-current financial assets are[4]:

	31.12.2022				
	FVTPL		AC		Miscella-neous
in kEUR	Carrying amount	Fair value	Carrying amount	Fair value	
Financial assets					
Derivatives	2.881	2.881	-	-	-
Shares in affiliates	11.550	11.550	-	-	-
Participations	6	6	-	-	-
Loans	-	-	461	461	-
Continuing involvement	-	-	-	-	4.275
Other receivables	-	-	8.481	7.845	-
	14.438	**14.438**	**8.942**	**8.306**	**4.275**
Trade receivables	**-**	**-**	**9.346**	**9.346**	**-**

	31.12.2021				
	FVTPL		AC		Miscella-neous
in kEUR	Carrying amount	Fair value	Carrying amount	Fair value	
Financial assets					
Derivatives	-	-	-	-	-
Shares in affiliates	12.885	12.885	-	-	-
Participations	6	6	-	-	-
Loans	-	-	482	482	-
Continuing involvement	-	-	-	-	6.153
Other receivables	-	-	6.848	6.848	-
	12.891	**12.891**	**7.330**	**7.330**	**6.153**
Trade receivables	**-**	**-**	**9.785**	**9.785**	**-**

Information on financial assets to related parties is provided in section H.

Information on determining the fair values of derivatives is provided in section C.

[4] Derivatives in hedge accounting and continuing involvement do not fall under any of the measurement categories of IFRS 9. They are therefore included in the "Miscellaneous" category.

The changes in shares in affiliates and participations are shown below:

in kEUR	Shares in affiliates	Participa-tions
Carrying amounts as of		
01.01.2021	**14.645**	**6**
Additions	517	0
Changes in the consolidation group	-2.277	0
31.12.2021	**12.885**	**6**
Changes in fair value	49	0
Disposals	-4.007	0
Changes in the consolidation group	2.623	0
31.12.2022	**11.550**	**6**

The carrying amount of the shares in affiliates relates firstly to shares in subsidiaries that were not included in the consolidation group for reasons of materiality (see subsection "Subsidiaries" in the section "Consolidation Group" under "B Basis of Preparation"). Secondly, the carrying amount includes shares in the parent company of Zeppelin GmbH, Luftschiffbau Zeppelin GmbH, Friedrichshafen, of EUR 11,276 thousand. The shares correspond to 10.0% of the subscribed capital of EUR 35,000 thousand. The shares do not confer any dividend subscription rights and have restrictions on their resale.

The carrying amount of the participations relates to shares held by Zeppelin GmbH in Wirtschaftsförderung Bodenseekreis GmbH.

The information on the fair values of the shares in affiliates and participations corresponds to the total of the discounted cash flows. Discounting is carried out using the weighted average cost of capital. The valuation method falls under level 3 of the fair value hierarchy (see subsection "Fair Value" in the section "Financial Instruments" under "C Accounting Policies").

Changes in fair value are recognized in profit or loss in the financial result.

The weighted average cost of capital (WACC) and the growth rate of the terminal value (TV) are used as significant unobservable inputs in determining the fair value. A change in the two inputs would have the following effects on the fair value and the consolidated net profit after tax:

in kEUR	12/31/2022	12/31/2021
WACC		
+1.0%	-2,349	-4,032
-1.0%	3,224	5,846
Growth rate TV		
+1.0%	2,676	4,946
-1.0%	-1,959	-3,421

The information on the fair values of the loans corresponds to the present value of the cash inflows. They are discounted using credit risk-adjusted interest rates. The valuation method falls under level 2 of the fair value hierarchy (see subsection "Fair Value" in the section Financial Instruments" under "C Accounting Policies").

For derivative financial instruments, future cash flows are determined using forward curves. In particular, exchange rates and yield curves are used, which can be observed on the relevant markets and obtained via market information systems. The fair value of these instruments corresponds to the sum of the discounted cash flows. The fair values determined for derivatives therefore fall under level 2 of the fair value hierarchy (see the "Fair Value" subsection in the "Financial Instruments" section under "C Accounting Policies").

16 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

The carrying amount of investments accounted for using the equity method are attributable to associates and joint ventures as follows:

in kEUR	12/31/2022	12/31/2021
Investments accounted for using the equity method		
Associates	18,659	19,501
	18,659	**19,501**

The carrying amount of associates includes CZ Loko a.s.

Summarized financial information about CZ Loko a.s. is presented in the following table:

in kEUR	12/31/2022	12/31/2021
Share of equity capital		
Net assets		
Current Assets	86,871	70,680
Non-current assets	33,251	27,781
Current liabilities	-58,804	-50,203
Non-current liabilities	-21,342	-7,137
	39,976	**41,121**
Share in %	49.0	49.0
Other adjustments	-929	-648
	18,659	**19,501**

in kEUR	2022	2021
Share in net profit after tax		
Sales	93,762	111,325
Net profit	-756	3,690
Share in %	49.0	49.0
	-370	**1,808**
Share of other comprehensive income		
Other comprehensive income	577	1,008
Share in %	49.0	49.0
	283	**494**
Dividends received	**754**	**649**

17 Intangible Assets

The changes in intangible assets are shown below:

in kEUR	Goodwill	Customer base	Software	Conces-sions, industrial property rights, and technology	Internally generated intangible assets	Payments in advance	Total
Costs							
01.01.2021	**96.871**	**41.824**	**82.590**	**10.270**	**3.618**	**7.637**	**242.811**
Additions	0	0	3.298	57	0	6.391	9.746
Disposals	0	0	-359	-398	0	-80	-837
Changes in the consolidation group	930	837	30	10	0	0	1.807
Currency translation	580	-211	842	109	0	32	1.352
Transfers	0	0	3.241	34	0	-3.275	0
Reclassifications	0	0	0	0	0	0	0
31.12.2021	**98.381**	**42.450**	**89.643**	**10.082**	**3.619**	**10.704**	**254.878**
Additions	0	0	3.767	15	0	4.763	8.545
Disposals	0	0	-2.762	-782	0	0	-3.544
Changes in the consolidation group	2.799	1.633	114	3.819	0	7	8.372
Currency translation	-153	-1.389	648	-48	0	-47	-988
Transfers	0	0	2.367	0	-1.730	-636	0
Reclassifications	0	0	0	0	0	0	0
31.12.2022	**101.027**	**42.694**	**93.778**	**13.085**	**1.889**	**14.790**	**267.263**

in kEUR	Goodwill	Customer base	Software	Concessions, industrial property rights, and technology	Internally generated intangible assets	Payments in advance	Total
Accumulative depreciation and impairment losses							
01.01.2021	**-61.052**	**-6.046**	**-55.352**	**-7.689**	**-1.889**	**0**	**-132.029**
Depreciation	0	-4.734	-11.096	-266	0	0	-16.095
Impairments	0	0	-675	0	0	-694	-1.369
Reversals of impairments	0	0	0	0	0	0	0
Disposals	0	0	321	397	0	0	719
Changes in the consolidation group	-156	0	-24	0	0	0	-181
Currency translation	-575	-24	-690	-82	0	0	-1.372
Transfers	0	0	33	-33	0	0	0
Reclassifications	0	0	0	0	0	0	0
31.12.2021	**-61.784**	**-10.805**	**-67.483**	**-7.673**	**-1.889**	**-694**	**-150.327**
Depreciation	0	-4.823	-9.972	-2.262	0	0	-17.057
Impairments	-99	0	-269	0	0	-6.659	-7.027
Reversals of impairments	0	0	0	0	0	0	0
Disposals	0	0	2.748	782	0	0	3.530
Changes in the consolidation group	0	0	-70	0	0	0	-70
Currency translation	-336	342	-565	41	0	0	-519
Transfers	0	0	0	0	0	0	0
Reclassifications	0	0	-1	0	0	0	-1
31.12.2022	**-62.219**	**-15.285**	**-75.612**	**-9.112**	**-1.889**	**-7.353**	**-171.470**

The asset class “Software” includes the ERP system from the Group-wide SAP project. The carrying amount as of December 31, 2022 was EUR 5,769 thousand (12/31/2021: EUR 12,080 thousand) after an impairment of EUR 6,928 thousand (previous year EUR 1,369 thousand).

As of December 31, 2022, there were contractual obligations to acquire intangible assets amounting to EUR 290 thousand (12/31/2021: EUR 193 thousand).

The allocation of the carrying amount of goodwill to the CGU groups is presented below:

in kEUR	12/31/2022	12/31/2021
Goodwill		
Construction Equipment CE	10,581	10,487
Construction Equipment Nordics	6,846	7,428
Rental	16,366	16,366
Plant Engineering	5,016	2,316
	38,808	**36,597**

Zeppelin generally determines the recoverable amount of a CGU group as its fair value less costs to sell. The DCF method is applied. The cash flows used for the calculation are derived from the mid-term plan approved by management for the next three years on an after-tax basis. The expected cash flows after this period are extrapolated using growth rates. The growth rate reflects management’s expectations of future growth derived from the past.

The cost of capital rates after taxes are used to determine the present value. The cost of capital rates take into account Zeppelin’s industry-specific risk. The determined fair value falls under level 3 of the fair value hierarchy (see subsection “Fair Value” in the section “Financial Instruments” under “C Accounting Policies”). The growth rates and cost of capital rates used are shown in the table below:

	12/31/2022	
	Growth rate	Cost of capital
Goodwill		
Construction Equipment CE	1.00%	8.66%
Construction	2.00%	8.66%
Rental	1.00%	6.59%
Plant Engineering	1.00%	8.66%

	12/31/2021	
	Growth rate	Cost of capital
Goodwill		
Construction Equipment CE	1.00%	7.22%
Construction Equipment Nordics	1.60%	7.22%
Rental	1.00%	5.04%
Plant Engineering	1.00%	7.22%

18 PROPERTY, PLANT, AND EQUIPMENT

Changes in property, plant, and equipment are presented below:

in kEUR	Land and buildings	Technical equipment and machinery	Operating and business equipment	Rental fleet (RPO)	Rental fleet (other)	Advance payments and assets under construction	Total
Costs							
01.01.2021	**608.859**	**81.422**	**228.915**	**374.736**	**874.797**	**7.507**	**2.176.236**
Additions	28.754	4.738	32.867	115.431	173.571	15.017	370.378
Disposals	-6.692	-2.037	-17.751	-103.868	-81.033	-202	-211.584
Changes in the consolidation group	1.331	106	594	0	5.603	96	7.729
Currency translation	4.580	1.498	3.378	304	2.359	369	12.488
Transfers	2.933	-355	3.728	0	-2.022	-4.284	0
Reclassifications	-4.705	72	-2.304	172	-112	-3	-6.880
31.12.2021	**635.059**	**85.442**	**249.427**	**386.776**	**973.162**	**18.500**	**2.348.367**
Additions	21.549	4.068	34.829	117.146	262.913	16.647	457.153
Disposals	-17.529	-3.911	-27.174	-116.302	-107.183	-390	-272.490
Changes in the consolidation group	6.108	1.601	1.121	0	482	-8	9.304
Currency translation	1.582	1.110	302	-401	-2.577	-1.367	-1.352
Transfers	4.596	135	-3.198	0	6.707	-8.240	0
Reclassifications	234	-90	-150	0	-3.476	-1	-3.483
31.12.2022	**651.600**	**88.356**	**255.157**	**387.219**	**1.130.027**	**25.140**	**2.537.499**

in kEUR	Land and buildings	Technical equipment and machinery	Operating and business equipment	Rental fleet (RPO)	Rental fleet (other)	Advance payments and assets under construction	Total
Accumulative depreciation and impairment losses							
01.01.2021	**-232.266**	**-53.154**	**-145.829**	**-86.356**	**-368.883**	**0**	**-886.489**
Scheduled depreciation	-32.569	-6.386	-33.282	-51.987	-110.151	0	-234.375
Impairments	-2.213	0	0	0	0	-5.400	-7.613
Reversals of impairments	88	0	113	0	89	0	290
Disposals	4.610	1.694	16.518	43.918	46.452	0	113.191
Changes in the consolidation group	-20	-67	-406	0	-36	0	-529
Currency translation	-1.702	-976	-2.389	-108	-1.103	0	-6.277
Transfers	170	662	-913	0	81	0	0
Reclassifications	1.315	-22	2.121	-172	-45	0	3.197
31.12.2021	**-262.589**	**-58.248**	**-164.068**	**-94.705**	**-433.596**	**-5.400**	**-1.018.606**
Scheduled depreciation	-33.684	-7.005	-33.752	-51.122	-124.418	0	-249.982
Impairments	-1.306	-699	-84	0	-652	0	-2.741
Reversals of impairments	1.619	0	1	0	14	2.552	4.186
Disposals	8.939	3.106	25.356	50.395	64.282	0	152.078
Changes in the consolidation group	-441	-979	-625	0	-270	0	-2.315
Currency translation	-498	-743	-838	61	335	363	-1.319
Transfers	138	6	605	0	-749	0	0
Reclassifications	-35	18	-8	0	1.207	0	1.183
31.12.2022	**-287.855**	**-64.545**	**-173.413**	**-95.371**	**-493.847**	**-2.484**	**-1.117.516**

The asset classes shown in the statement of changes in non-current assets include rights of use for leased assets. Further details are provided in Note 26.

In the previous year, the branch under construction in Kyiv/Ukraine was subject to an impairment of EUR 7,000 thousand on buildings and assets under construction in view of Russia's war against Ukraine. In 2022, the risk situation was assessed and the write down adjusted, resulting in a write-up of EUR 2,552 thousand.

In financial year 2022, Zeppelin received compensation of EUR 16,165 thousand for damaged property, plant, and equipment (2021: EUR 14,114 thousand).

As of December 31, 2022, there were contract obligations for Zeppelin to acquire property, plant, and equipment amounting to EUR 212,596 thousand (12/31/2021: EUR 129,039 thousand). The purchase commitment mainly related to orders for the rental fleet (RPO).

19 Current Financial Liabilities

Current financial liabilities include[5]:

in kEUR	31.12.2022 FVTPL	AC	Miscella-neous
Financial liabilities			
Borrowings	-	32.698	-
Bonded loans	-	41.637	-
Derivatives	288	-	-
Lease liabilities	-	-	84.938
Continuing involvement	-	-	691
	288	**74.335**	**85.629**
Trade payables	**-**	**234.952**	**-**
Other financial liabilities	**-**	**137.948**	**-**

in kEUR	31.12.2021 FVTPL	AC	Miscella-neous
Financial liabilities			
Borrowings	-	3.844	-
Bonded loans	-	6.053	-
Derivatives	872	-	-
Lease liabilities	-	-	103.097
Continuing involvement	-	-	261
	872	**9.896**	**103.357**
Trade payables	**-**	**150.309**	**-**
Other financial liabilities	**-**	**121.068**	**-**

Other financial liabilities mainly included liabilities from repurchase obligations (RPO transactions) of EUR 67,961 thousand (2021: EUR 69,862 thousand).

Information on financial liabilities to related entities is provided in section H.

Current financial liabilities have a maturity of less than one year. Therefore, their carrying amounts at the reporting date correspond to their fair values. The fair values fall under level 2 of the fair value hierarchy (see subsection "Fair Value" in the section "Financial Instruments" under C "Accounting Policies").

For derivative financial instruments, future cash flows are determined using forward curves. Exchange rates and yield curves are used, which can be observed on the relevant markets and obtained via market information systems. The fair value of these instruments corresponds to the sum of the discounted cash flows. As such, the fair values determined for derivatives fall under level 2 of the fair value hierarchy (see subsection "Fair Value" in the section "Financial Instruments" under "C Accounting Policies").

[5] Derivatives in hedge accounting and continuing involvement do not fall under any of the measurement categories of IFRS 9. They are included in the "Miscellaneous" category.

20 Other liabilities

Other liabilities include:

in kEUR	12/31/2022 Total	12/31/2022 thereof current	12/31/2021 Total	12/31/2021 thereof current
Other liabilities				
Other tax liabilities	49,072	49,072	47,938	47,938
Deferred sales from RPO transactions	132,490	53,380	130,645	52,880
Liabilities for wages and salaries	2,376	1,995	1,876	1,606
Advance payments for services to be rendered	7,116	7,116	5,272	5,272
Other advance payments	19,909	19,903	20,996	20,906
	210,963	**131,466**	**206,727**	**128,602**

Advance payments for services to be rendered mainly relate to marketing support and rent. The other advance payments mainly relate to obligations to employees and other benefits.

21 Non-Current Financial Liabilities

The carrying amounts and fair values of non-current financial liabilities are[6]:

in kEUR	31.12.2022 FVTPL Carrying amount	FVTPL Fair value	AC Carrying amount	AC Fair value	Miscella-neous
Financial liabilities					
Borrowings	-	-	170.746	169.523	-
Bonded loans	-	-	204.808	175.703	-
Derivatives	-	-	-	-	-
Lease liabilities	-	-	-	-	188.866
Continuing involvement	-	-	-	-	4.283
	-	**-**	**375.554**	**345.226**	**193.149**
Trade payables	**-**	**-**	**-**	**-**	**-**
Other financial liabilities	**-**	**-**	**169.002**	**168.872**	**-**

[6] Derivatives in hedge accounting and continuing involvement do not fall under any of the measurement categories of IFRS 9. They are included in the "Miscellaneous" category.

	31.12.2021				
	FVTPL		AC		Miscella-neous
in kEUR	Carrying amount	Fair value	Carrying amount	Fair value	
Financial liabilities					
Borrowings	-	-	66.136	72.773	-
Bonded loans	-	-	244.747	254.601	-
Derivatives	6.180	6.180	-	-	-
Lease liabilities	-	-	-	-	207.464
Continuing involvement	-	-	-	-	6.165
	6.180	**6.180**	**310.884**	**327.374**	**213.628**
Trade payables	**-**	**-**	**-**	**-**	**-**
Other financial liabilities	**-**	**-**	**168.451**	**168.390**	**-**

Other financial liabilities mainly included liabilities from repurchase obligations (RPO transactions) of EUR 167,484 thousand (2021: EUR 165,280 thousand).

Information on financial liabilities to related entities is provided in section H.

With the exception of the disclosures on the fair value of the continuing involvement, the fair values of the financial liabilities correspond to the present value of the cash outflows. They are discounted using credit risk-adjusted interest rates. The valuation method falls under level 2 of the fair value hierarchy (see subsection "Fair Value" in the section "Financial Instruments" under "C Accounting Policies").

For derivative financial instruments, future cash flows are determined using forward curves. In particular, exchange rates and yield curves are used, which can be observed on the relevant markets and obtained via market information systems. As such, the fair values determined for derivatives fall under level 2 of the fair value hierarchy (see subsection "Fair Value" in the section "Financial Instruments" under "C Accounting Policies").

22 Employee Benefits

Employee benefits include:

in kEUR	12/31/2022 Total	12/31/2022 thereof current	12/31/2021 Total	12/31/2021 thereof current
Employee benefits				
Short-term employee benefits				
Vacation and overtime	28,289	28,289	25,395	25,395
Variable salary components and bonuses	53,008	53,008	54,172	54,172
Commissions	7,301	7,301	6,884	6,884
Social contributions	9,269	9,269	7,861	7,861
Miscellaneous	5,662	5,662	4,815	4,815
	103,529	**103,529**	**99,126**	**99,126**
Net liability from defined benefit pension plans	**114,162**	**7,352**	**167,968**	**7,345**
Other long-term employee benefits				
Jubilee bonuses	3,435	505	4,385	644
Partial retirement	4,160	1,160	4,423	988
Miscellaneous	340	0	221	0
	7,935	**1,666**	**9,029**	**1,632**
Post-employment benefits	**798**	**846**	**2,080**	**1,620**
	226,424	**113,393**	**278,203**	**109,723**

Provisions for Defined Benefit Pension Plans

Zeppelin provides participating employees with post-employment pension and similar benefits in the form of defined contribution and defined benefit plans under which benefits are payable in the form of payments on and after retirement, disability, and death.

Defined contribution plans mainly relate to the statutory pension insurance of the Federal Republic of Germany and company pension benefits with contributions paid to direct insurance companies by way of employer financing and deferred compensation.

Expenses for defined contribution plans amounted to EUR 8,445 thousand (2021: EUR 7,305 thousand).

The largest defined benefit commitment is the pension plan of Zeppelin Metallwerke GmbH (now Zeppelin GmbH), which was closed in 1995 and largely transferred to Zeppelin Baumaschinen GmbH and Zeppelin Systems GmbH in the course of restructuring. The amount of the respective claims depends on the length of service and the pensionable income before January 1, 1996. Current pensions are adjusted annually at 1.0%. In addition, there are further defined benefit commitments for smaller pension plans and individual commitments to managing directors and selected executives. The commitments provide for a lifelong pension, a partial disability or survivors' pension, or corresponding contributions and various capital options.

Furthermore, larger defined benefit pension obligations were taken over from the acquisition in Sweden in financial year 2019. The benefits under the pension plan are graduated according to different percentages depending on salary intervals.

As of the reporting date, for a total of 3,317 employees (12/31/2021: 3,383) there were obligations from defined benefit commitments, of which 931 are due to active employees (12/31/2021: 1,010), 724 to former employees with vested pension rights (12/31/2021: 715) and 1,662 to pensioners and surviving dependants (12/31/2021: 1,658).

Zeppelin has invested plan assets to meet and finance its defined benefit commitments, which are measured at fair value and offset against provisions for pensions. Plan assets include reinsurance policies and funds paid into pension trusts (CTAs) as plan assets. The plan assets are earmarked, secured against insolvency, and pledged.

A breakdown of the net liability and changes thereto are presented below:

in kEUR	31.12.2022	31.12.2021
Net liability		
Provisions for pensions	126.242	181.230
thereof covered	14.982	18.465
thereof not covered	111.260	162.765
Fair value of plan assets	-12.624	-13.374
	113.617	**167.856**

The net liability included EUR 545 thousand (2021: EUR 113 thousand) of excess assets from a direct commitment (payment into a CTA).

in kEUR	Provisions for pensions	Plan assets	Net liability
1/1/2021	**191.653**	**12.217**	**179.437**
Service cost	2.766	0	2.766
Interest result	892	90	801
Benefits paid by company / plan	-8.883	-331	-8.552
Actuarial gains (-) and losses (+) from pension plans	-4.749	-291	-4.458
thereof			
from the change in demographic assumptions	-456	0	-456
from the change in financial assumptions	-6.001	0	-6.001
due to experience adjustments	1.707	0	1.707
Employee contributions	181	181	0
Employer contributions	-261	858	-1.119
Currency translation	-780	280	-1.060
Miscellaneous	412	371	41
12/31/2021	**181.230**	**13.374**	**167.856**

in kEUR	Provisions for pensions	Plan assets	Net liability
1/1/2022	**181.230**	**13.374**	**167.856**
Service cost	2.126	0	2.126
Interest result	1.497	103	1.394
Benefits paid by company / plan	-9.359	-872	-8.487
Actuarial gains (-) and losses (+) from pension plans	-47.004	-1.600	-45.404
thereof			0
from the change in demographic assumptions	-7.253	0	-7.253
from the change in financial assumptions	-40.996	0	-40.996
due to experience adjustments	1.245	0	1.245
Employee contributions	191	191	0
Employer contributions	-271	986	-1.257
Currency translation	-2.461	300	-2.762
Miscellaneous	293	142	151
12/31/2022	**126.242**	**12.624**	**113.617**

For the following financial year Zeppelin expects payments for employer contributions to plan assets of EUR 596 thousand (12/31/2021: EUR 749 thousand), and pension payments of EUR 277 thousand (12/31/2021: EUR 252 thousand).

The valuation of provisions for pensions is based on actuarial assumptions. The assumptions weighted across the entire Group according to their relative share of the total obligation are presented below:

	12/31/2022	12/31/2021
Weighted actuarial interest rate	2.55%	0.83%
Weighted future wage and salary increases	2.24%	2.34%
Weighted future pension increase	1.12%	1.28%

The calculation basis for life expectancy is the 2018 G mortality tables by Klaus Heubeck.

The average duration of provisions for pensions is between 4.0 and 35.1 years (12/31/2021: 3.0 to 38.1 years). The generally increased interest rate environment was taken into account as of December 31, 2022 and led to a lower obligation due to the increased discount factor.

Zeppelin is exposed to actuarial risks from the measurement of provisions for pensions. The carrying amount of provisions is particularly sensitive to fluctuations in discount rates and life expectancy. The following sensitivity analysis provides a quantitative assessment of the extent of the actuarial risks.

in kEUR	12/31/2022	12/31/2021
Discount rate		
+0.25%	123,320	175,064
-0.25%	126,721	186,827
Life expectancy		
+1 year	132,290	190,056
-1 year	126,803	171,498

A breakdown of the plan assets is presented below:

in kEUR	12/31/2022			12/31/2021		
	Listed	Unlisted	Total	Listed	Unlisted	Total
Plan assets						
Cash	0	90	**90**	0	38	**38**
Equity instruments	2,127	0	**2,127**	2,166	0	**2,166**
Debt instruments	2,421	0	**2,421**	2,647	0	**2,647**
Real estate	0	1,222	**1,222**	0	1,218	**1,218**
Investment funds	26	1,702	**1,728**	77	0	**77**
Insurance policies	0	4,897	**4,897**	0	6,889	**6,889**
Miscellaneous	132	7	**139**	340	0	**340**
	4,706	7,919	**12,625**	5,230	8,145	**13,374**

23 OTHER PROVISIONS

A breakdown of other provisions is presented below:

in kEUR	Warranties	Onerous contracts	Provisions	Loyalty bonuses and other price reductions	Legal fees	Miscella-neous	Total
01.01.2021	**16.876**	**2.857**	**1.477**	**4.023**	**2.128**	**16.281**	**43.643**
Addition	14.315	4.560	1.895	3.482	883	8.440	33.576
Utilization	-9.081	-1.611	-603	-2.290	-140	-3.488	-17.213
Reversals	-2.322	-562	-124	-204	-652	-3.921	-7.785
Discounting	-7	0	0	0	0	-118	-126
Unwinding of the discount	0	0	0	0	0	3	3
Changes in the consolidation group	32	0	0	0	0	46	78
Currency translation	425	30	-15	0	34	194	667
31.12.2021	**20.238**	**5.275**	**2.630**	**5.012**	**2.252**	**17.438**	**52.845**

in kEUR	Warranties	Onerous contracts	Provisions	Loyalty bonuses and other price reductions	Legal fees	Miscella-neous	Total
31.12.2021	**20.238**	**5.275**	**2.630**	**5.012**	**2.252**	**17.438**	**52.845**
Addition	18.062	5.505	2.291	4.254	2.585	6.700	39.396
Utilization	-6.889	-450	-1.682	-2.757	-497	-3.530	-15.805
Reversals	-5.650	-742	-517	-201	-347	-2.392	-9.849
Discounting	-68	0	0	0	0	-492	-560
Unwinding of the discount	0	0	0	0	0	0	0
Changes in the consolidation group	145	0	0	0	0	49	194
Currency translation	-114	18	-142	1	121	-117	-233
31.12.2022	**25.723**	**9.605**	**2.580**	**6.308**	**4.114**	**17.657**	**65.987**

A summary of other provisions by maturity is presented in the following table:

in kEUR	12/31/2022		12/31/2021	
	Total	thereof current	Total	thereof current
Other provisions				
Warranties	25,723	22,686	20,238	17,379
Onerous contracts	9,605	9,595	5,275	5,077
Commissions	2,580	2,580	2,630	2,630
Loyalty bonuses and other price reductions	6,308	6,308	5,012	5,012
Legal fees	4,114	4,114	2,252	2,252
Miscellaneous	17,657	15,131	17,438	14,874
	65,987	**60,413**	**52,845**	**47,225**

Warranty provisions are recognized for warranty obligations. The valuation takes into account the expected value of the warranty costs attributable to the sales made. Warranty provisions are reversed upon expiry of the respective warranty period. The number of warranty claims, the warranty costs, and the timing of warranty claims are subject to estimation.

Provisions for onerous contracts are recognized for pending sales transactions if the unavoidable costs exceed the expected economic benefits from the settlement of these transactions. Expected costs and sales are estimated. A large part of the provisions relates to orders for which sales are realized according to degree of completion. They are recognized as soon as the expected total costs from the fulfillment of the contract exceed the contract value. Due to the substantially increased risk situation in Russia and Ukraine, appropriate provisions for pensions and risks were made under going concern aspects.

Provisions for commissions relate to expected obligations to pay commissions to third parties for the brokerage of business. The amount of the brokerage commission is estimated.

Provisions for loyalty bonuses and other price reductions are recognized for the achievement of certain targets (e.g. sales targets) within a defined period. Estimates are required in terms of attaining the targets and the amount of the resulting discounts.

Provisions for legal fees are recognized for expected litigation expenses. Estimates relate to the amount of court costs such as court fees and expenses, as well as non-court costs, for example for lawyers. It is also necessary to estimate the extent of Zeppelin's contribution to the costs of the proceedings and the time at which it will be able to benefit from the pending proceedings.

24 Equity

The share capital of EUR 100,000 thousand (12/31/2021: EUR 100,000 thousand) is divided into two shares. These are issued and fully paid in. The following table illustrates the carrying amount per share and the associated voting rights.

in kEUR	31.12.2022	31.12.2021
Luftschiffbau Zeppelin GmbH		
Carrying amount of share capital	96.250	96.250
Voting rights in %	96,25	96,25
Zeppelin Foundation		
Carrying amount of share capital	3.750	3.750
Voting rights in %	3,75	3,75

Zeppelin distributed a dividend of EUR 20,640 thousand in financial year 2022 (2021: EUR 15,711 thousand). The dividend is paid to the shareholders of Zeppelin GmbH in proportion to their shares.

The capital reserve of EUR 60,000 thousand results from shareholder contributions. It serves to permanently strengthen the equity of Zeppelin GmbH.

A breakdown of retained earnings is presented below:

in kEUR	31.12.2022	31.12.2021
Retained earnings		
Shares in Luftschiffbau Zeppelin GmbH	11.276	11.276
First-time adoption of IFRS	15.962	15.962
Foreign currency translation differences	-37.417	-37.417
Other retained earnings	947.984	868.625
	937.804	**858.445**

The reserve for the initial application of IFRS includes the equity differences resulting from the conversion from HGB to IFRS. The reserve for currency translation includes the cumulative currency translation differences up to the date of conversion to IFRS. Other retained earnings relate to the retained earnings.

The Management Board proposes to distribute a dividend of 18%, i.e. EUR 18,022 thousand, for financial year 2022 from the consolidated net profit for the year attributable to the shareholders of Zeppelin GmbH (EUR 100,123 thousand) and to carry forward the remaining net profit of EUR 610,511 thousand to new account.

The value of deferred taxes reported in accumulated other comprehensive income is EUR -6,859 thousand (12/31/2021: EUR 6,120 thousand).

	12/31/2022		
in kEUR	Before income taxes	Income taxes	After income taxes
Actuarial gains (-) and losses (+) from pension plans	25,033	-6,892	18,141
Hedge relationships	-383	73	-310

	12/31/2021		
in kEUR	Before income taxes	Income taxes	After income taxes
Actuarial gains (-) and losses (+) from pension plans	-21,971	6,079	-15,892
Hedge relationships	-450	41	-409

25 Capital Management

As part of its capital management, Zeppelin's objective is to maintain or increase the company's ability to continue as a going concern and the benefits for the shareholders of Zeppelin GmbH through financial stability. In order to achieve these objectives, measures are taken to control the capital structure by management. The control methods have not changed compared with the previous year.

Zeppelin's credit agreements include financial covenants relating in part to equity and debt. Zeppelin has complied with all financial covenant agreements.

Zeppelin monitors the capital on the basis of the debt ratio, the equity ratio, and the return on capital according to IFRS. The control ratios are aimed at the management of balance sheet equity.

A breakdown of the ratios is presented below:

	31.12.2022	31.12.2021
Debt ratio[7]	0,97	0,41
Equity ratio	34,6 %	33,8 %
Return on capital	**6,2 %**	**8,0 %**
Earnings before interest and income tax	149.129	172.469
Capital employed	2.416.482	2.163.345

The capital employed consists of fixed assets and working capital. The basis for calculating the ratios has not changed compared with the previous year.

26 Leasing

Lessee

Zeppelin's lease agreements mainly relate to real estate, motor vehicles (hereinafter "vehicles"), office and business equipment, as well as technical equipment and machinery.

The term of the lease agreements for real estate is between 12 and 684 months (12/31/2021: between 11 and 684 months). Extension and termination options were agreed under these leases. Zeppelin uses these options to ensure the best possible flexibility with regard to the continuation or abandonment of sales locations and rental stores. The measurement of lease liabilities reflects current estimates of the expected exercise or non-exercise of these options. Zeppelin is partially obliged to restore the properties to their original condition upon termination of a lease agreement. Provisions for restoration obligations are recognized for this purpose in accordance with IFRIC 1 in conjunction with IAS 37.

The term of the lease agreements for vehicles is between 2 and 89 months (12/31/2021: between 5 and 89 months). There are no purchase or extension options or termination options. Compensation payments are made for excess mileage if the maximum mileage on which the contract is based is exceeded. Vehicle lease agreements are often concluded with a time lead corresponding to the manufacturers' delivery times.

The term of the lease agreements for office and business equipment is between 1 and 245 months (12/31/2021: between 1 and 84 months). There are usually no purchase or extension options or termination options. The increase in the term was due to a new leasing contract for photovoltaic systems.

The term of the leases for technical equipment and machinery is between 24 and 61 months (12/31/2021: between 32 and 61 months). There are usually no purchase or extension options or termination options.

The following table summarizes cash flows, expenses, and income resulting from leases:

in kEUR	2022	2021
Interest expenses from lease liabilities	-3,295	-3,013
Expenses from short-term lease agreements	-17,555	-15,336
Expenses from lease agreements for low-value assets	-9,606	-7,644
Expenses from variable lease payments other than lease payments	-2,537	-2,224
Income from subleases	1,006	610
Cash outflow from leasing	-81,001	-82,783
thereof from lease liabilities	-55,139	-59,579
thereof from short-term leasing and low-value assets	-25,862	-23,204

The total of fixed lease payments for contracts whose term had not yet commenced as of the reporting date amounted to EUR 7,053 thousand (12/31/2021: EUR 7,167 thousand). These are expected lease payments from vehicle leases which Zeppelin has entered into but whose terms do not begin until delivery of the vehicles after the reporting date.

[7] The debt ratio is equal to the financial debt divided by the earnings before interest, taxes, depreciation, and amortization.

Changes to the carrying amounts of the rights of use are presented below:

in kEUR	Land and buildings	Technical equipment and machinery	Operating and business equipment	Rental fleet (other)
Costs				
01.01.2021	**177.366**	**5.916**	**39.154**	**15.882**
Additions	24.877	1.556	10.863	1.556
Disposals	-5.818	-699	-6.503	-3.194
Changes in the consolidation group	34	0	0	0
Currency translation	723	138	181	-285
Transfers	46	-59	-892	0
Reclassifications	-56	0	-1	0
31.12.2021	**197.172**	**6.853**	**42.802**	**13.959**
Additions	17.027	1.167	13.135	1
Disposals	-16.714	-542	-9.592	-11.310
Changes in the consolidation group	2.907	187	766	0
Currency translation	-648	85	-241	-414
Transfers	-9	-4	-1.643	0
Reclassifications	234	0	-28	0
31.12.2022	**199.969**	**7.746**	**45.199**	**2.237**
Accumulative depreciation and impairment losses				
01.01.2021	**-53.445**	**-2.664**	**-17.290**	**-3.073**
Depreciation	-21.178	-1.359	-10.289	-2.151
Impairments	0	0	0	0
Reversals of impairments	64	0	44	0
Disposals	3.956	610	6.260	998
Changes in the consolidation group	-2	0	0	0
Currency translation	-253	-79	-60	58
Transfers	0	0	521	0
Reclassifications	-43	0	0	0
31.12.2021	**-70.902**	**-3.492**	**-20.814**	**-4.167**
Depreciation	-22.490	-1.551	-11.682	-2.056
Impairments	0	0	0	0
Reversals of impairments	0	0	0	0
Disposals	8.552	532	9.370	4.596
Changes in the consolidation group	-415	-92	-314	0
Currency translation	420	-57	205	109
Transfers	0	4	796	0
Reclassifications	-35	34	-2	0
31.12.2022	**-84.870**	**-4.622**	**-22.441**	**-1.518**

Information on the maturities of the lease liability is provided in Note 28 "Liquidity Risk".

Zeppelin uses SLB transactions to finance certain parts of the rental fleet.

Lessor

Zeppelin rents out construction machines as well as a wide range of construction equipment, modular room systems, construction site and traffic guidance systems, work platforms, forklifts and lifts, and vehicles. The vast majority of rental business is accounted for in accordance with the rules for operating leases. In addition, rental income includes income from deferred sales from RPO transactions, which are accounted for as rentals.

Income from operating leases was:

in kEUR	2022	2021
Income from leases	482,255	451,484
thereof variable	2,305	1,982

In subsequent financial years, Zeppelin expects fixed payments from operating leases of:

in kEUR	12/31/2022	12/31/2021
Proceeds from operating leases		
In subsequent year	124,169	75,141
thereof Rental SBU order backlog	107,715	60,325
in 2nd subsequent year	4,622	7,048
in 3rd subsequent year	2,131	3,785
in 4th subsequent year	1,182	1,704
in 5th subsequent year	550	837
Thereafter	157	498
	132,810	**89,012**

Changes to the carrying amount of assets leased under operating leases are presented below:

in kEUR	Rental fleet (RPO)	Rental fleet (other)
Costs		
01.01.2021	**374.736**	**874.797**
Additions	115.431	173.571
Disposals	-103.868	-81.033
Changes in the consolidation group	0	5.603
Currency translation	304	2.359
Transfers	0	-2.022
Reclassifications	172	-112
31.12.2021	**386.776**	**973.162**
Additions	117.146	262.913
Disposals	-116.302	-107.183
Changes in the consolidation group	0	482
Currency translation	-401	-2.577
Transfers	0	6.707
Reclassifications	0	-3.476
31.12.2022	**387.219**	**1.130.028**
Accumulative depreciation and impairment losses		
01.01.2021	**-86.356**	**-368.883**
Depreciation	-51.987	-110.151
Impairments	0	0
Reversals of impairments	0	89
Disposals	43.918	46.452
Changes in the consolidation group	0	-36
Currency translation differences	-108	-1.103
Transfers	0	81
Reclassifications	-172	-45
31.12.2021	**-94.705**	**-433.596**
Depreciation	-51.122	-124.418
Impairments	0	-652
Reversals of impairments	0	14
Disposals	50.395	64.282
Changes in the consolidation group	0	-270
Currency translation differences	61	335
Transfers	0	-749
Reclassifications	0	1.207
31.12.2022	**-95.371**	**-493.847**

G FINANCIAL INSTRUMENTS

27 OTHER DISCLOSURES ON FINANCIAL INSTRUMENTS

Classification

The following table summarizes the carrying amounts of the financial instruments included in the consolidated financial statements by measurement category:

in kEUR	12/31/2022	12/31/2021
Financial assets		
AC	634,278	679,475
FVTPL	16,554	12,892
	650,832	**692,367**
Financial liabilities		
AC	991,791	760,608
FVTPL	288	7,052
	992,079	**767,660**

Zeppelin has not made any reclassifications between these categories.

The excess of financial liabilities over financial assets mainly results from the accounting for leases and for SLB transactions. The assets recognized for these transactions (rights of use and rental fleet) are not financial instruments but property, plant, and equipment and are therefore not included in the above comparison.

Offsetting

Zeppelin does not hold any cash collateral and does not set off any balance sheet items. Derivative financial instruments, credit balances, and liabilities to banks are recognized gross in the consolidated statement of financial position.

In the case of derivative financial instruments and account balances with banks, all derivatives existing between the counterparties concerned as well as credit balances and liabilities could be offset in the event of insolvency. At present, Zeppelin has no legal right to set off, nor does Zeppelin intend to settle on a net basis.

Carrying amounts and offsetting potentials are presented in the summary below:

in kEUR	12/31/2022	12/31/2021
Derivatives		
Derivatives with positive fair value	4,997	119
Offsetting potential	-288	-119
	4,709	**0**
Derivatives with negative fair value	288	7,052
Offsetting potential	-288	-119
	0	**6,933**
	4,709	**6,933**
Cash at bank		
Cash at bank	157,044	211,423
Offsetting potential	-20,440	-13,690
	136,604	**197,733**
Borrowings		
Borrowings	203,443	69,980
Offsetting potential	-20,440	-13,690
	183,003	**56,290**

Collateral Provided and Received

Zeppelin has not pledged any financial assets as collateral for financial liabilities and does not itself hold any significant collateral for financial assets.

Net Results

The following table summarizes the net results from financial instruments by measurement category. They include net income and expenses from interest, revaluation, net exchange differences, loss allowances, and disposal effects.

in kEUR	2022	2021
Financial assets		
AC	-7,224	-702
FVTPL	12,342	3,394
	5,118	**2,691**
Financial liabilities		
AC	-21,332	-11,014
FVTPL	-3,507	-2,413
	-24,839	**-13,427**

The net results in the AC measurement category include expenses from the application of the effective interest method of EUR -17,110 thousand (2021: EUR -12,119 thousand).

Hedge Accounting

In accordance with Group policies, Zeppelin uses derivative financial instruments only with a reference to hedged item within the framework of currency and interest rate risk management to hedge cash flows from interest and exchange rate fluctuations and to hedge the fair value against interest-related fluctuations (see section “Principles of Financial Risk Management” under Note 28 “Management of Financial Risks”). However, not every hedging relationship is accounted for as such. The following summary presents the carrying amounts of the derivatives portfolio by hedges reported in the balance sheet and not reported in the balance sheet:

in kEUR	12/31/2022	12/31/2021
Derivatives		
Cash flow hedging		
Derivatives for interest rate hedging	3,274	-6,180
thereof in hedge relationships whose accounting had to be discontinued	3,274	-6,180
Derivatives for currency hedging	1,435	-870
thereof in hedge relationships not reported in the balance sheet	1,435	-870
	4,709	**-7,051**
Fair value hedging		
Derivatives for interest rate hedging	0	118
thereof in hedge relationships reported in the balance sheet	0	118
	0	**118**
	4,709	**-6,933**

Hedge Accounting for Currency Hedges

Zeppelin uses forward exchange contracts and currency swaps to manage currency risks. Zeppelin also uses the foreign currency component of medium and non-current financial liabilities from SLB transactions to hedge currency risks arising from the EUR/PLN currency pair (see subsection “Currency Risk” in the section “Market Risks” under Note 28 “Management of Financial Risks”).

For practical reasons, the hedge accounting rules for these hedges are only applied from a certain period-related threshold. Hedge accounting is applied by Zeppelin for the currency hedging relationship of highly probable, firmly contracted cash inflows in the EUR/PLN foreign currency relationship.

Intercompany loans (CZK/EUR, USD/EUR, DKK/ZEP, SEK/EUR and GBP/EUR) are hedged by entering into forward exchange contracts or currency swaps in the corresponding currency with matching amounts and maturities. It is therefore expected that the offsetting changes in value of the underlying and hedging transactions will be almost completely offset in the future for each hedged risk.

Since financial year 2018, Zeppelin hedged highly probable, firmly contracted cash inflows in foreign currency from operating activities for the EUR/PLN currency pair with maturities matching those of the foreign currency component of financial liabilities from medium- and long-term SLB transactions in the corresponding currency. It is expected that the offsetting changes in value of the underlying and hedging transactions will be almost completely offset in the future the currency risk.

The table below presents a summary of the key terms of the financial liabilities from medium- and long-term SLB transactions used to hedge highly probable cash inflows from operating activities denominated in foreign currencies:

in kEUR	Carrying amount	Remaining balance of liability	Term
31.12.2022			
	9.841	10.344	3 to 6 years
31.12.2021			
	12.319	12.948	3 to 6 years

The nominal amount of these transactions is due as follows:

in kEUR	Subsequent year	2nd to 5th subsequent year	Thereafter	Total
31.12.2022				
	3.027	7.316	0	**10.344**
31.12.2021				
	3.790	9.158	0	**12.948**

A breakdown of the carrying amounts of these transactions (reported under non-current and current financial liabilities) and the related amounts recognized in accumulated other comprehensive income is presented below:

in kEUR	Carrying amount	Accumulated change in value	Accumulated other comprehensive income
31.12.2022			
	9.841	103	-384
31.12.2021			
	12.319	338	-502

The hedged items are off-balance-sheet, firmly contracted, and highly probable cash inflows from operating activities. The expected inflows of cash and cash equivalents and their accumulated change in value are as follows:

in kEUR	Expected cash inflows	Accumulated change in value
31.12.2022		
	10.344	-103
31.12.2021		
	12.948	-338

Changes to the amount recognized in accumulated other comprehensive income for currency risk hedges are as follows:

in kEUR	Carrying amount
01.01.2021	**-841**
Change in fair value	44
Recycling due to realization of the hedged item	295
Recycling for losses that are no longer expected	0
31.12.2021	**-502**
Change in fair value	-226
Recycling due to realization of the hedged item	328
Recycling for losses that are no longer expected	0
31.12.2022	**-400**

Non-offsetting, ineffective portions of the hedging relationships generally result from the one-sided consideration of the specific credit risk of each party in the hedging transactions. In 2022, as in the previous year, there was no ineffectiveness in FX hedges.

Hedge Accounting for Interest Rate Hedges

Zeppelin uses interest rate swaps to manage interest rate risks (see subsection “Interest Rate Risk” in the section “Market Risk” under Note 28 “Management of Financial Risks”).

Volumes and maturities are aligned with the structure of the cash flows of the financial liabilities and with the desired degree of hedging. To the extent that the parameters of the hedged item and the hedging instrument relevant to valuation match, the changes in value of the hedged item and the hedging instrument caused by interest rate fluctuations are systematically offset.

Hedging relationships are reported in the balance sheet as cash flow hedges or fair value hedges. The hedged items are bonded loans and drawdowns under the syndicated credit facility. In 2022, no hedging relationships were designated as cash flow or fair value hedges.

Cash Flow Hedges

Interest rate swaps used to hedge cash flows from hedged items with variable interest rates have no longer been used since 2021 due to the termination of the hedging relationship for lack of effectiveness.

Changes to the amount recognized in accumulated other comprehensive income for interest rate hedges are as follows:

in kEUR	Carrying amount
01.01.2021	**-858**
Change in fair value	977
Recycling due to realization of the hedged item	-376
Recycling for discontinued hedging relationships	306
31.12.2021	**49**
Change in fair value	0
Recycling due to realization of the hedged item	-49
Recycling for discontinued hedging relationships	0
31.12.2022	**0**

Fair Value Hedges

Fair value hedges are used to hedge fluctuations in the fair value of bonded loans. Due to the expiry of the hedged item, the hedge reported as of the 2021 reporting date was also terminated in 2022. The following table provides an overview of the conditions as of the previous year's reporting date:

in kEUR	Carrying amount	Nominal	Zeppelin pays		Zeppelin receives	
			from	to	from	to
31.12.2021						
Positive fair values						
	118	4.500	3M Euribor + 2.055%	3M Euribor + 2.055%	3,75 %	3,75 %

The maturity structure of these transactions is summarized in the table below according to reference amounts:

in kEUR	Subsequent year	2nd to 5th subsequent year	Thereafter	Total
31.12.2021				
	4.500	0	0	**4.500**

The carrying amounts of derivatives in fair value hedges (reported under non-current and current financial assets and non-current and current financial liabilities) are as follows:

in kEUR	Carrying amount		Accumulated change in value
	Assets	Liabilities	
31.12.2021			
	118	0	-349

The carrying amounts of the hedged items (reported under non-current financial liabilities) are as follows:

in kEUR	Carrying amounts	Accumulated base adjustment	Accumulated change in value
31.12.2021			
Bonded loans	4.568	11	349

As part of the fair value hedge, income and expenses from the subsequent measurement of derivatives amounting to EUR -60 thousand (2021: EUR -101 thousand) were recognized. The carrying amount of the loans was adjusted in the amount of EUR -60 thousand (2021: EUR -101 thousand) and amortization of the carrying value adjustments in the amount of EUR 49 thousand (2021: EUR 76 thousand) were recognized. The changes in the value of the hedged item and the hedging instrument caused by changes in the market interest rate level are systematically balanced out so that the parameters of the hedged item and the hedging instrument relevant to valuation match.

Non-offsetting, ineffective portions of the hedging relationship generally result from the one-sided consideration of the specific credit risk of each party in the hedging instrument. For reasons of materiality, Zeppelin does not recognize this ineffectiveness.

28 Management of Financial Risks

Principles of Financial Risk Management

The principles and responsibilities for the management and controlling of risks arising from financial instruments are defined by the Group Management Board in accordance with the legal provisions and set out in Group guidelines.

The Group is exposed to various financial risks arising from the Group's business and financing activities. Financial risks are divided into liquidity, default, and market risks (currency and interest rate risks).

The Group Management Board and the Group Supervisory Board receive regular reports on the Group's financial risks. Compliance with the group guidelines is checked by the internal audit department and selectively by the Group auditor.

The methods and assumptions of financial risk management have not changed compared with the previous reporting period and have proven to be appropriate and effective even in the current crisis situation.

Liquidity Risk

The liquidity risk is managed on the basis of business planning, which ensures that the funds required to finance the operating business and current and future investments in all Group companies are available promptly and in the required currency at reasonable cost. Liquidity risk management includes determining, with the aid of a liquidity plan, liquidity requirements from operating activities, investing activities, and other financial measures.

A rolling 12-month liquidity forecast and medium-term financial plan show the Group's liquidity requirements, which are fully covered at all times by a long-term syndicated credit facility of sufficient size, bonded loans, and concluded and available SLB capacities.

The following summary presents the expected cash outflows from financial liabilities at the respective reporting dates:

in kEUR	In subsequent year		In 2nd to 5th subsequent year		Thereafter	
	Interest	Repayment	Interest	Repayment	Interest	Repayment
31.12.2022						
Financial liabilities						
Borrowings	4.028	33.286	6.759	170.295	0	0
Bonded loans	3.684	40.000	7.306	95.000	3.072	110.000
Derivatives	0	68.901	0	0	0	0
thereof currency forwards	0	68.901	0	0	0	0
thereof interest rate derivatives	0	0	0	0	0	0
Lease liabilities	0	85.324	0	174.869	0	17.867
	7.712	**227.511**	**14.065**	**440.164**	**3.072**	**127.867**
Trade payables	**0**	**243.859**	**0**	**0**	**0**	**0**
Other financial liabilities	**294**	**137.903**	**415**	**173.094**	**5**	**161**

in kEUR	In subsequent year		In 2nd to 5th subsequent year		Thereafter	
	Interest	Repayment	Interest	Repayment	Interest	Repayment
31.12.2021						
Financial liabilities						
Borrowings	330	6.672	6.637	66.136	0	0
Bonded loans	2.626	4.500	8.634	135.000	4.134	110.000
Derivatives	2.546	28.116	3.504	0	0	0
thereof currency forwards	0	28.116	0	0	0	0
thereof interest rate derivatives	2.546	0	3.504	0	0	0
Lease liabilities	0	103.169	0	198.560	0	11.753
	5.502	**142.457**	**18.775**	**399.696**	**4.134**	**121.753**
Trade payables	**116**	**150.205**	**0**	**0**	**0**	**0**
Other financial liabilities	**60**	**120.949**	**157**	**169.000**	**1**	**232**

In the reporting period, Zeppelin made all interest and principal repayments on time and in full and also met all capital requirements contained in credit and loan agreements. There are no concentrations of risk. Contingent liabilities are not expected to result in material actual liabilities and thus significant cash outflows for which no provisions have been recognized.

Default Risk

Credit Risk Management

To manage credit risk, Zeppelin has established a creditworthiness management system tailored to market conditions and customers. Before an order is accepted, a credit assessment is carried out on the basis of the creditworthiness data available on the customer. The Construction Equipment CE, Power Systems, and Rental SBUs use a market data portal for this purpose. Credit risk classes and credit limits are determined on the basis of the results of the credit assessment. If credit limits are exceeded, transactions are only settled against advance payment or the deposit of additional collateral such as bank guarantees. A significant proportion of new and used machines and engines are sold with the involvement of sales financing partners. At our own risk, purchase price deferrals or long-term financing purchase agreements are only granted in exceptional cases after intensive credit checks. Zeppelin harmonizes Group-wide credit management for customers who have business relationships with multiple SBUs by assigning Group credit limits, escalation processes, and monthly reporting on the utilization of Group limits.

The Construction Equipment Nordics SBU uses the credit assessment of external service providers, who regularly prepare credit assessments on new and existing customers. Credit risk classes and credit limits are determined on the basis of the results of the credit assessment. If credit limits are exceeded, transactions are only settled against advance payment or the deposit of additional collateral such as bank guarantees. If credit limits are exceeded, the customer can no longer purchase products or services, although in individual cases transactions can be approved by authorized persons. The decision then made is either extended credit or an advance payment. However, the majority of new and used machines are sold on a pre-delivery payment basis. If sales financing partners are used for the sale of machines, they bear the risk of bad debts.

The markets of the Plant Engineering SBU are highly diversified. In order to reduce the risk of bad debt losses, the Group concludes agreements regarding down payments and interim payments, collaterals, and credit and trade credit insurance. In order to protect itself against economic and political risks, the Group takes advantage of German government-backed trade export credit guarantees.

The availability of market data on the creditworthiness of customers is very limited in the markets in which the Construction Equipment Eurasia SBU operates. Therefore, transactions are generally only carried out against advance payment or bank guarantees. Credit limits and payment terms are only granted if, in exceptional cases, the creditworthiness of a customer can be assessed with sufficient reliability. Credit limits and payment terms are subject to strict monitoring. Since the outbreak of Russia’s war against Ukraine, the majority of deliveries and services in these countries are only made for advance payment.

Zeppelin only invests its cash and cash equivalents in banks with the highest creditworthiness and probabilities of default close to zero. If creditworthiness deteriorates significantly, Zeppelin withdraws all cash and cash equivalents promptly or reduces them to a level that is acceptable from a risk perspective.

Default Risk

Zeppelin distinguishes between recoverable non-performing and irrecoverable financial assets. Zeppelin divides credit risk into creditworthiness levels using different concepts tailored to market conditions and customers.

A financial asset is classified as non-performing (“definition of default”) if there are significant reasons to believe that a debtor is unlikely to meet its payment obligations to Zeppelin.

A financial asset is deemed irrecoverable if, for example, Zeppelin is unable to collect the amount receivable definitively as a result of the conclusion of insolvency proceedings.

All financial assets that are neither non-performing nor irrecoverable are collectible.

The following table summarizes the credit quality and the maximum default risk represented by the gross value according to the aforementioned categories:

in kEUR	Credit quality	Loss allowance	Gross value	Loss allowance	Carrying amount
12/31/2022					
Financial assets					
Loans	recoverable	Lifetime ECL	1,074	0	1,074
	Non-performing	Lifetime ECL	3,626	-3,339	287
Other receivables	recoverable	Lifetime ECL	27,208	0	27,208
	Non-performing	Lifetime ECL	254	-220	34
			32,162	**-3,559**	**28,603**
Trade receivables		**Lifetime ECL – simplified approach**	**481,729**	**-33,098**	**448,631**
Contract assets		**Lifetime ECL – simplified approach**	**49,921**	**-1,455**	**48,466**
Cash and cash equivalents					
Cash and cash equivalents	recoverable	12-month ECL	157,044	0	157,044
	Non-performing	Lifetime ECL	810	-810	0
			157,854	**-810**	**157,044**

in kEUR	Credit quality	Loss allowance	Gross value	Loss allowance	Carrying amount
12/31/2021					
Financial assets					
Loans	recoverable	Lifetime ECL	1,550	0	1,550
	Non-performing	Lifetime ECL	4,093	-3,806	287
Other receivables	recoverable	Lifetime ECL	24,729	0	24,729
	Non-performing	Lifetime ECL	266	-219	47
			30,639	**-4,025**	**26,614**
Trade receivables		**Lifetime ECL – simplified approach**	**470,228**	**-28,790**	**441,438**
Contract assets		**Lifetime ECL – simplified approach**	**42,902**	**-2,754**	**40,148**
Cash and cash equivalents					
Cash and cash equivalents	recoverable	12-month ECL	211,423	0	211,423
	Non-performing	Lifetime ECL	810	-810	0
			212,233	**-810**	**211,423**

In the case of financial instruments measured at fair value through profit or loss, the carrying amount reflects the maximum default risk.

in kEUR	12/31/2022	12/31/2021
Financial assets		
Derivatives	4,997	119
Shares in affiliates	11,550	12,885
Participations	6	6
Securities	0	0
	16,553	**13,010**

Loss Allowances

Loss allowances are recognized by Zeppelin taking into account past events and expectations regarding the future development of credit risk (see the “Impairment Losses” subsection in the “Financial Instruments” section under “C Accounting Policies”). The methods used to measure the loss allowance have not changed compared with the previous year.

Loans mainly relate to associates and affiliates not included in the consolidation group.

Loss allowances on trade receivables and contract assets are consistently measured using a simplified approach that only takes into account expected credit losses to maturity.

The following risk profile is derived for trade receivables in relation to the maturity structure:

in kEUR	Total	Not due	Days until overdue						Non-performing
			< 30	31 - 60	61 - 90	91 - 180	181 - 360	> 360	
31.12.2022									
Trade receivables									
Gross	481.729	308.576	105.616	18.571	15.300	7.462	5.215	14.290	6.699
Loss allowance	-33.098								
	448.631								

in kEUR	Total	Not due	Days until overdue						Non-performing
			< 30	31 - 60	61 - 90	91 - 180	181 - 360	> 360	
31.12.2021									
Trade receivables									
Gross	470.228	298.483	121.133	16.468	4.924	5.866	5.779	12.707	4.868
Loss allowance	-28.790								
	441.438								

Changes to the balance of loss allowances on trade receivables and loss allowances on other receivables and contract assets are presented below:

in kEUR	Creditworthiness not impaired	Creditworthiness impaired	Total
01.01.2021	**-10.110**	**-19.944**	**-30.054**
Transfer	-34	34	0
Revaluation	-1.201	-6.061	**-7.261**
Derecognition	1.062	2.409	**3.471**
Reversal	804	2.578	**3.382**
Change in gross value	0	0	**0**
Change in creditworthiness parameters	-9	0	**-9**
Changes in the consolidation group	0	0	**0**
Currency translation	-361	-931	**-1.292**
31.12.2021	**-9.849**	**-21.915**	**-31.763**
Transfer	34	-34	0
Revaluation	-2.730	-7.613	**-10.343**
Derecognition	244	3.444	**3.688**
Reversal	758	3.105	**3.863**
Change in gross value	0	0	**0**
Change in creditworthiness parameters	56	-4	**52**
Changes in the consolidation group	0	85	**85**
Currency translation	-125	-230	**-355**
31.12.2022	**-11.612**	**-23.162**	**-34.773**

Non-performing receivables of EUR 3,559 thousand (2021: EUR 4,025 thousand) are included in the “Creditworthiness impaired” category in the reconciliation account.

Market Risks

Zeppelin is exposed to market risks from exchange rate and interest rate fluctuations. Zeppelin uses derivative financial instruments (forward exchange contracts, currency and interest rate swaps) to manage the impact of market risks on its operating results. These hedges are entered into under appropriate consideration of the risk management requirements applicable to banks and are subject to strict monitoring. Zeppelin’s risk positions are hedged taking account of certain risk limits. In individual cases, Zeppelin also uses primary financial instruments to hedge currency risks.

Currency Risk

Zeppelin’s global operations expose it to currency risks arising from fluctuating exchange rates. Zeppelin uses the value-at-risk approach to measure currency risks.

The objective of currency risk management is to hedge cash flows and fair values against exchange rate fluctuations.

The Group’s currency risk is primarily RUB/USD, EUR/USD, EUR/RUB and USD/UAH.

Currency risks from the USD/UAH and USD/RUB currency pairs are largely eliminated by minimizing the difference between income and expenses in the respective foreign currency (hereinafter “natural hedges”). Due to the volatility of the Russian ruble and the absence of instruments to hedge exchange rate risks, there were exchange rate losses in the statement of profit or loss, which, however, could be partially offset by the gross profit of the transactions. Zeppelin also limits currency risks by concluding forward exchange contracts and currency swaps. Zeppelin also uses the foreign currency component of medium and long-term financial liabilities from SLB transactions in EUR to hedge currency risks arising from the EUR/PLN currency pair. Due to these hedges, the natural hedges, and offsetting effects between the different currency pairs within the Group, Zeppelin is not exposed to any significant currency risks in a normal market environment.

The main non-derivative financial instruments (cash and cash equivalents, trade and other receivables, loans, bonded loans, trade payables, and other liabilities) are nominated in their functional currency. Due in particular to the generally short-term maturity of these instruments, possible changes in exchange rates have only a very minor impact on consolidated net profit after tax and consolidated total comprehensive income.

The following sensitivity analysis illustrates the extent of the currency risk. It shows the effects of hypothetical exchange rate changes on consolidated net profit after tax and the consolidated total comprehensive income. The effects are determined by applying hypothetical changes in the exchange rate to the measurement of the derivative and non-derivative financial instruments as of the reporting date. In the case of derivative financial instruments accounted for as hedging instruments in cash flow hedges, changes in other comprehensive income for hedge accounting are also taken into account. It is assumed that the portfolio at the reporting date is representative for the year as a whole.

On the basis of Zeppelin’s currency hedging strategy, the currency pairs EUR/CZK and EUR/RUB only have sensitivities resulting from the interest rate difference. These are not disclosed below due to lack of materiality. Currency risks from the USD/RUB and USD/UAH currency pairs are largely eliminated by natural hedges. Effects from loans in EUR to the Zeppelin companies in Russia are not included in the sensitivity analysis, as these loans are fully hedged with corresponding cash at bank in euro. The sensitivity analysis therefore focuses on the presentation of the currency risk from the EUR/USD and EUR/PLN currency pairs.

If the exchange rates of the above currency pairs had been 10.0% higher or lower as of the reporting date, this would have had the following effects on consolidated net profit after tax and the consolidated total comprehensive income:

in kEUR				2022 Net profit for the year	2022 Total compre-hensive income	2021 Net profit for the year	2021 Total compre-hensive income
Derivatives							
	EUR	USD	+10.0%	4.264	0	734	0
			-10.0%	-4.799	0	-807	0
Original financial instruments							
	EUR	USD	+10.0%	-1.189	0	-230	0
			-10.0%	1.454	0	281	0
Balance							
	EUR	**USD**	**+10.0%**	**3.075**	**0**	**504**	**0**
			-10.0%	**-3.345**	**0**	**-526**	**0**

in kEUR				2022 Net profit for the year	2022 Total compre-hensive income	2021 Net profit for the year	2021 Total compre-hensive income
Derivatives							
	EUR	PLN	+10.0%	122	0	0	0
			-10.0%	-150	0	0	0
Original financial instruments							
	EUR	PLN	+10.0%	-52	-627	-57	-787
			-10.0%	64	767	69	962
Balance							
	EUR	**PLN**	**+10.0%**	**70**	**-627**	**-57**	**-787**
			-10.0%	**-87**	**767**	**69**	**962**

Interest Rate Risk

Financial instruments sensitive to interest rates are subject to an interest rate risk. This exists either in the form of a fair value risk or a cash flow risk. The fair value risk is determined according to the sensitivity of the book value of a financial instrument depending on the market interest rate level. The cash flow risk describes the extent to which future interest payments will change as a result of changes in interest rates.

Financial liabilities sensitive to interest rates consist primarily of variable-interest liabilities to banks and other variable-interest financial liabilities in EUR.

The objective of interest rate risk management is to hedge the interest rate risk for a specific period and a defined proportion of the Group's financial liabilities against a significant increase in capital market interest rates. Zeppelin uses interest rate swaps for this purpose.

The following sensitivity analysis illustrates the extent of the interest rate risk. It shows the effects of a hypothetical parallel shift in the yield curve for the euro area on consolidated net profit after tax and the consolidated total comprehensive income. The analysis takes account of the effects of a change in interest rates on the interest result from derivative and non-derivative financial instruments and on the reporting date value of derivative financial instruments. In the case of derivatives accounted for as hedging instruments in cash flow hedges, changes in other comprehensive income for hedge accounting are also taken into account. It is assumed that the portfolio at the reporting date is representative for the year as a whole.

A parallel shift of +/- 100 basis points in the yield curve for the euro area (previous year: +50 or -25 basis points) would have had the following effects on consolidated net profit after tax and the consolidated total comprehensive income:

in kEUR	2022 Net profit for the year	2022 Total comprehensive income	2021 Net profit for the year	2021 Total comprehensive income
+50 BP	n.a.	n.a.	1.118	0
-25 BP	n.a.	n.a.	-568	0
+100 BP	792	0	n.a.	n.a.
-100 BP	-834	0	n.a.	n.a.

Compared with the previous year, the range of sensitivities was adjusted to +/- 100 basis points, as the interest rate level is lower than in previous years.

H Notes to Transactions with Related Parties

Zeppelin's related parties include joint ventures, associates, and participations, Luftschiffbau Zeppelin GmbH and its subsidiaries, and the Zeppelin Foundation.

In addition, ZF Friedrichshafen AG, which is controlled by the Zeppelin Foundation, and all of its affiliates are also related entities.

Transactions with related parties as well as receivables and liabilities existing at the reporting date result from ordinary business activities and are broken down as follows:

in kEUR	Affiliates 2022	Affiliates 2021	Associates 2022	Associates 2021	Participations 2022	Participations 2021
Deliveries and services rendered						
Sale of goods	9	8	9,203	8,678	116	0
Other services	46	12	41	25	46	120
	55	**20**	**9,244**	**8,703**	**162**	**120**
Deliveries and services received						
Sale of goods	1,552	1,383	0	0	67	150
Other services	0	37	37	3	107	118
	1,552	**1,420**	**37**	**3**	**174**	**268**
Dividends received	**1,598**	**2,680**	**0**	**0**	**0**	**0**

in kEUR	LZ GmbH 2022	LZ GmbH 2021	ZF Group 2022	ZF Group 2021
Deliveries and services rendered				
Sale of goods	0	3	170	520
Other services	97	92	93	101
	97	**95**	**263**	**621**
Deliveries and services received				
Sale of goods	0	19	0	40
Other services	1,890	1,855	36	65
	1,890	**1,875**	**36**	**105**
Dividends received	**0**	**0**	**0**	**0**

in kEUR	Affiliates 12/31/2022	Affiliates 12/31/2021	Associates 12/31/2022	Associates 12/31/2021	Participations 12/31/2022	Participations 12/31/2021
Receivables	29	8	4,184	0	127	84
Payables	166	643	0	0	74	6

in kEUR	LZ GmbH 12/31/2022	LZ GmbH 12/31/2021	ZF Group 12/31/2022	ZF Group 12/31/2021
Receivables	0	6	93	527
Payables	0	3	0	0

Transactions with related parties were conducted on terms and conditions that do not differ from those applicable to transactions with independent business partners.

The current remuneration of the active members of the Management Board amounted to EUR 4,512 thousand (2021: EUR 4,392 thousand); of this, EUR 3,882 thousand (2021: EUR 3,770 thousand) was short-term employee benefits and EUR 630 thousand (2021: EUR 622 thousand) was post-employment benefits. The pension provisions of the members of the Management Board were EUR 6,614 thousand (12/31/2021: EUR 9,674 thousand). The management remuneration consists of a fixed salary, an individual target agreement, and a performance-related component, whereby the amount of the variable remuneration components is limited and these were recognized as liabilities as of the end of the year in the amount of EUR 2,385 thousand (2021: EUR 2,285 thousand).

The remuneration of the Supervisory Board for financial year 2021 was EUR 678 thousand (2021: EUR 528 thousand) and comprised a fixed bonus, expense allowances, and attendance fees. As of the end of the year, obligations to the Supervisory Board amounting to EUR 440 thousand (2021: EUR 491 thousand) were recognized as liabilities.

Pension payments amounting to EUR 630 thousand (2021: EUR 622 thousand) were made to former members of the Management Board. The provision for pension payments to former members of the Management Board was EUR 11,155 thousand (12/31/2021: 12,452).

In addition, Group companies have not carried out any reportable transactions with members of the Management Board or Supervisory Board of Zeppelin GmbH or other members of management in key positions or with companies on whose management or supervisory bodies these persons are represented. This also applies to close family members of this group of persons.

I OTHER NOTES

29 NOTES TO THE STATEMENT OF CASH FLOWS

Changes to the carrying amounts of the financial liabilities included in the statement of cash flows are presented below:

in kEUR	Borrowings	Bonded loans	Lease liabilities
1/1/2021	**120,511**	**243,746**	**331,617**
Cash flow from financing activities	-55,892	7,000	-59,579
Changes in the consolidation group	82	0	67
Currency translation	4,420	0	755
Changes in fair value	0	-36	0
Other changes	858	90	37,700
12/31/2021	**69,980**	**250,800**	**310,560**

in kEUR	Borrowings	Bonded loans	Lease liabilities
12/31/2021	**69,980**	**250,800**	**310,560**
Cash flow from financing activities	127,307	-4,500	-55,139
Changes in the consolidation group	2,895	0	3,027
Currency translation	3,261	0	-2,697
Changes in fair value	0	0	0
Other changes	0	145	18,052
12/31/2022	**203,443**	**246,445**	**273,804**

In addition to the cash flow from financing activities totaling EUR 67,668 thousand (2021: -108,471), interest of EUR 16,961 thousand (2021: EUR 11,568 thousand) was paid.

The cash flow from investing activities does not include any additions to rights of use, as the addition is offset by the recognition of a lease liability at the same amount. Information on rights of use and lease liabilities can be found under Note 26. Furthermore, the financial statements do not include any non-cash transactions.

30 Events After the Reporting Date

Russia's war against Ukraine has had a major impact on Zeppelin's business. Zeppelin's net asset positions in Russia and Ukraine amounted to a low three-digit million amount at the end of the year, which had to be considered at risk. However, it was possible to reduce this compared with the previous year through targeted risk provisioning measures.

No other significant events occurred after the end of financial year 2022 whose effects would have had a material or endangering impact on the Group's position.

31 Auditor's Fees

The auditor of Zeppelin GmbH is PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (hereinafter "PwC"). The fees amounted to EUR 624 thousand in financial year 2022 (2021: EUR 582 thousand) and are broken down as follows:

in kEUR	2022	2021
Auditor's fees		
Auditing services	524	544
Other services	100	38
	624	**582**

The auditing services item includes fees for auditing the annual financial statements and the consolidated financial statements of Zeppelin GmbH, for auditing the annual financial statements of the German subsidiaries included in the consolidated financial statements, and for reviewing the reporting packages of certain foreign subsidiaries. The auditing fee for the Zeppelin Group amounted to a total of EUR 1,526 thousand (2021: EUR 1,318 thousand). Other audit firms from PwC's network and other audit firms were involved in the audit.

The other services item comprises the fees for Zeppelin GmbH and the Group's German subsidiaries that are included in the consolidated financial statements. This included EUR 28 thousand for certification services and EUR 72 thousand for other services. Tax consulting services were not used this year.

In addition to PwC, other audit firms were active in an advisory capacity within the Group.

32 Disclosure

Zeppelin GmbH prepares consolidated financial statements, which must be submitted to the Federal Gazette.

Zeppelin Baumaschinen GmbH, Garching near München, Zeppelin Systems GmbH, Friedrichshafen, Zeppelin Power Systems GmbH, Hamburg, Zeppelin Rental GmbH, Friedrichshafen, klickrent GmbH, Berlin, Zeppelin Aviation & Industrial Service GmbH, Friedrichshafen, SITECH Deutschland GmbH, Oberhausen, Meton GmbH, Hoppstädten-Weiersbach, Klickparts GmbH, Hallbergmoos, and Zeppelin Lab GmbH, Berlin, do not disclose their annual financial statements in accordance with § 264 para. 3 HGB.

33 Corporate Bodies

The members of the Management Board of Zeppelin GmbH are Mr. Peter Gerstmann (Chairman of the Management Board), Mr. Michael Heidemann (Deputy Chairman of the Management Board), Mr. Christian Dummler (Managing Director), and Ms. Alexandra Mebus (Managing Director and Labor Director). On January 1, 2023, Fred Cordes joined the Management Board of Zeppelin GmbH and took over responsibility for Sales, Service, and Marketing from Michael Heidemann, as well as responsibility for the Construction Equipment CE, Nordics and Eurasia SBUs. Michael Heidemann will retire on June 30, 2023. In addition, further responsibilities within the Group Management Board have changed as of January 1, 2023.

The members of the Supervisory Board of Zeppelin GmbH are Mr. Andreas Brand (Chairman), Mr. Heribert Hierholzer (Deputy Chairman), Mr. Dr. Reinhold Festge, Mr. Dr. Werner Pöhlmann, Mr. Univ-Prof. Dr.-Ing. Dr.-Ing. e. h. Dr. h. c. Dieter Spath, Mr. Thomas Mann, Ms. Marita Weber, Mr. Ralph Misselwitz, Mr. Frederic Striegler, Ms. Prof. Dr. Yasmin Mei-Yee Weiß, Ms. Carolin Winkel and Ms. Dr. Kristin Neumann.

Friedrichshafen, February 28, 2023

The Management Board of Zeppelin GmbH

Peter Gerstmann	Michael Heidemann	Christian Dummler
Alexandra Mebus	Fred Cordes	

TRANSLATION – THE GERMAN TEXT IS AUTHORITATIVE

INDEPENDENT AUDITOR'S REPORT

To Zeppelin GmbH, Friedrichshafen

AUDIT OPINIONS

We have audited the consolidated financial statements of Zeppelin GmbH, Friedrichshafen, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2022, the consolidated comprehensive income statement, the consolidated income statement, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year from January 1 to December 31, 2022, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Zeppelin GmbH, which is combined with the Company's management report, for the financial year from January 1 to December 31, 2022. In accordance with the German legal requirements, we have not audited the content of the statement on corporate governance pursuant to § [Article] 289f Abs. [paragraph] 4 HGB [Handelsgesetzbuch: German Commercial Code] (disclosure on the quota for women on executive boards).

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply in all material respects with the IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2022 and of its financial performance for the financial year from January 1 to December 31, 2022 and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of the statement on corporate governance referred to above.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

BASIS FOR THE AUDIT OPINIONS

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

OTHER INFORMATION

The executive directors are responsible for the other information. The other information comprises the statement on corporate governance pursuant to § 289f Abs. 4 HGB (disclosure on the quota for women on executive boards) as an unaudited component of the Group Management Report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the above other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the content of the audited group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS AND THE SUPERVISORY BOARD FOR THE CONSOLIDATED FINANCIAL STATEMENTS AND THE GROUP MANAGEMENT REPORT

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e para. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal controls as they have determined are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinion on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure, and content of the consolidated financial statements as a whole, including the disclosures, and whether the consolidated financial statements present the hedged items and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision, and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate

the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in the internal control system that we identify during our audit.

Munich, February 28, 2023

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Jürgen Schumann	p.p. Bernhard Obermayr
German Public Auditor	German Public Auditor

NOTES

ABOUT THIS PUBLICATION

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For annual reports and further information about Zeppelin, please visit our website at zeppelin.com.

The annual report was published in April 2023. It is also available in German.

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