



Zeppelin Group

Sustainability Report

2023



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STRATEGY & MANAGEMENT

Our approach to sustainability

1 Statement by the Group Management Board

GRI 2-9, 2-11

Dear customers, partners, employees, and readers,

In regard to the three dimensions of sustainability, the Zeppelin Group is pleased to report a successful fiscal year in 2023. We were able to increase our sales and profit compared with the previous year. By reducing our greenhouse gas emissions, we have come a step closer to our goal of achieving CO₂ neutrality (Scope 1 & 2) by 2030. Furthermore, our corporate social responsibility was enhanced by our support of numerous projects through donations and sponsorships in the 2023 reporting year.

Corporate social responsibility (CSR) is an integral part of our corporate strategy. As a foundation-owned company committed to the infinity principle, we make an active contribution to climate action and environmental protection. We see sustainable action as a basic prerequisite for ensuring our long-term business success and maintaining and expanding our competitiveness. In addition, in keeping with our appeal as an employer we take responsibility for our employees and are committed to society.

As part of our CSR strategy, we place our customers and sustainable products and services at the heart of our activities and make authentic contributions in the areas of ecology, the economy and social issues. For example, we are currently expanding the way we calculate our carbon footprint to include indirect emissions along the value chain (Scope 3), significantly expanding our portfolio of sustainable products and services, and converting Zeppelin's own sites to climate-neutral operations. During Zeppelin CSR Week, we once again worked with customers, partners, and experts to address various issues related to sustainable business. Our goal is to use this format to promote the exchange of ideas both at Zeppelin and in our industries and to raise awareness of sustainability.



This “Sustainability Report 2023” describes Zeppelin’s sustainability strategy and developments in the 2023 fiscal year. The focus here is on the progress we have made in achieving the goals we defined in the material action areas.

On behalf of the Group Management Board



Peter Gerstmann

Chairman of the Group Management Board of Zeppelin GmbH



Christian Dummler

Managing Director/CFO of Zeppelin GmbH

Click here to watch the video message from Christian Dummler.

 **WATCH THE VIDEO**

2 CSR progress

Material topic	Target	Development	Reference	Status
Economy				
Compliance	Ensure a high training rate in the area of compliance: over 90% ¹	The number of confirmed violations has decreased by 40%. All compliance violations were resolved. The training rate has increased to 96.8% and the increased target has been achieved.	Page 29	■
Data protection	Avoidance of data protection breaches through targeted information and training	The number of data protection complaints reported decreased to 32 (2022: 56). The training rate increased to 77.2% (2022: 68.8%).	Page 32	■
Quality management	Use the knowledge and innovativeness of employees for ongoing improvement and optimization	The number of submitted ideas has decreased, and the number of ideas that have been rewarded has increased. This indicates an increase in the quality of ideas submitted.	Page 33	■
	Ensure a high training rate on the Integrated Management System (IMS) and CSR: over 50%	New voluntary CSR e-learning with eight learning units rolled out worldwide. Target achieved with a participation rate of 60%.	Page 33	■
Sustainable supplier management	Collaborate with qualified suppliers	Legal requirements according to the German Supply Chain Due Diligence Act (LkSG) implemented. Responsible persons appointed, risk analysis carried out, and declaration of principles for human rights and environmental rights adopted by the Group Management Board. Focus on further development of internal processes and raising awareness among suppliers.	Page 36	■
Sustainable products & services	Expand the range of sustainable products and services	Introduction of the low-emission fuel HVO checked and prepared. Product range of electrically powered vehicles, technical solutions for enhancing efficiency and reducing waste as well as increasing customer safety expanded.	Page 40	■

¹ Target adjustment compared with previous year: Increased compliance training rate from over 80% to over 90%

Material topic	Target	Development	Reference	Status
Society				
	Maintain the average length of service at a level of at least 9.3 years	Length of service remained stable in 2023 (9.6 years).	Page 55	■
Employee satisfaction	Maintain the voluntary resignation rate at a maximum of 7,5% by 2025 ²	Due to ongoing social and economic trends and challenges, the target was adjusted to 7.5%. The voluntary resignation rate for 2023 fell by 6.6% compared with the previous year. In 2023, the global Z VOICE employee opinion survey collected feedback on topics that influence employee satisfaction, motivation and therefore loyalty to the company.	Page 55	■
Diversity	Increase the proportion of women to at least 20% by 2025	Slight increase in the proportion of women to 18.1%. In order to promote women at Zeppelin, diversity goals have been embedded in all talent and development programs.	Page 58	■
	Reduce work-related injuries by 10% per year by 2025	The work-related injuries rate was reduced by 10% compared with the previous year and the target was achieved.	Page 60	■
	Reduce accident-related lost time (days) by 10% per year by 2025 ³	The target of an annual reduction in accident-related lost time (days) by 10% was missed in the 2023 reporting year (+6.3% compared with 2022).	Page 60	■
Occupational health and safety	Increase the health rate to at least 95% by 2025	The health rate improved slightly to 95.8% Group-wide (2022: 95.5%). The adjusted target has been reached.	Page 60	■
Donations & sponsorship	Allocate donations in accordance with the foundation's ethos and vision on the company's economic earning power: Donation amount in relation to Group net income ^{3,4} annually at a minimum of 0.5 – 1%	With a total donation of around EUR 1.2 million and a donation ratio of 1.2% in the 2023 fiscal year, Zeppelin once again achieved its donation target.	Page 64	■

² Target adjustment compared with previous year: Maximum voluntary resignation rate increased from 5.0% to 7.5%

³ Target adjustment compared with previous year: Target health rate reduced from 97% to 95%

Material topic	Target	Development	Reference	Status
Environment				
Carbon neutrality	Carbon neutrality in ongoing business operations by 2030 (Scope 1 & 2 market-based)	Emissions (Scope 1 & 2) were reduced by 5.9% (market-based) compared with the previous year due to various energy-saving measures, building renovations, the expansion of renewable energies, and the switch to green electricity as well as one-off effects. <ul style="list-style-type: none"> • 2022: 43,759 t CO₂e • 2023: 41,172 t CO₂e 	Page 68	■
	Reduce CO ₂ emissions by 46% by 2027 (base year 2022, Scope 1 & 2 market-based) ⁴			
Carbon neutrality	Reduce energy consumption by 1% annually between 2021 and 2025 (electricity and heat)	Total energy consumption has been reduced by 5,459 MWh (-2.9%). Energy consumption excluding mobility has decreased by 7.5% in relation to sales compared with the base year 2022. As a result, the new intermediate target was achieved.	Page 68	■
	Reduce energy consumption (excluding mobility) per EUR million in sales by 9.5% by 2027 (base year 2022) ⁵			
Reduce water consumption	Reduce fresh water consumption by 30% by 2030 (base year: 2022) ⁶	Overall, water consumption has been reduced by 10.2%. Fresh water consumption was reduced by 10.7% compared with the base year 2022. In addition to water-saving measures, this is also due to the increased use of rainwater.	Page 74	■
	Reduce fresh water consumption by 17.2% by 2027 (base year: 2022) ⁷			
Circular economy	Greatest possible resource efficiency through prevention and reduction of waste	The total amount of waste was reduced by 3.7% compared with the previous year. Optimizing material flows and participating in World Cleanup Day helped to further reduce waste and raise awareness among employees.	Page 75	■

⁴ Target adjustment compared with previous year: New intermediate target added
⁵ Target adjustment compared with previous year: New intermediate target added
⁶ Target adjustment compared with previous year: Base year adjusted from 2021 to 2022
⁷ Target adjustment compared with previous year: New intermediate target added

3 Introduction to the Zeppelin Group

GRI 2-1, 2-6

3.1 Company profile

The roots of the Zeppelin Group 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.

The Zeppelin Group offers solutions in the construction industry, drive and energy systems, engineering and plant engineering. The offering ranges 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, plant engineering, and customer-oriented digital solutions in all relevant business segments. Zeppelin has been a Caterpillar sales partner since 1954 and is currently represented in 26 countries worldwide.

In the 2023 fiscal year, the Group workforce comprised over 10,000 employees and generated sales of EUR 3.93 billion. To date, the Group has structured its activities into six strategic business units (Construction Equipment Central Europe, Construction Equipment Nordics, Construction Equipment Eurasia, Rental, Power Systems, Plant Engineering). Following a realignment of the Construction Equipment Germany & Austria and Construction Equipment International strategic business units, the Group has been organized since January 1, 2024 into five strategic business units plus the Strategic Management Center Group IT Services. Zeppelin GmbH is the Group holding company. It is legally domiciled in Friedrichshafen and has its head office in Garching bei München.

More information on the organizational and management structure can be found in the Annual Report 2023. The report also lists the extensive range of products and services offered by the individual strategic business units (SBU), and provides a detailed description of economic development.

Overview of the Zeppelin Group⁸



Construction Equipment Central Europe

Distribution and service of construction machines



Construction Equipment Nordics

Distribution and service of construction machines



Construction Equipment Eurasia

Distribution and service of construction and agricultural machines



Rental

Rental and project solutions for construction and industry



Power Systems

Drive, propulsion, traction, and energy systems



Plant Engineering

Engineering and plant engineering

Group IT Services

Strategic Management Center (SMC) for IT, Innovation, and Digitalization

⁸Restructuring of the strategic business units from 2024

3.2 The Group Management Board and the Supervisory Board

GRI 2-9, 2-11

The Group Management Board

Peter Gerstmann has been a member of the Management Board of Zeppelin GmbH since 2007 and Chief Executive Officer since 2010. He is responsible for Group Development and Innovation, Audit, Group Communications, IT Security, and the Plant Engineering SBU.

Christian Dummler has been responsible as CFO for Finance, Controlling, Real Estate Management, and Legal since 2011, and since 2020 has also been responsible for the newly created Corporate Social Responsibility (CSR) division and the Power Systems SBU.

Fred Cordes was appointed Managing Director of Zeppelin GmbH on January 1, 2023 and as COO is responsible for Sales, Marketing, and Service and the Construction Equipment Central Europe, Construction Equipment Nordics, Construction Equipment Eurasia strategic business units, and since the reorganization, the Construction Equipment Germany & Austria and Construction Equipment International strategic business units. He succeeded Michael Heidemann, who took his well-deserved retirement on June 30, 2023 after 31 years of service at Zeppelin.

Alexandra Mebus, Member of the Management Board and, since 2018, CHRO is responsible for Compliance and Data Protection, HR and HR Development, Diversity, and IT/Digitalization as well as the Rental SBU.

In accordance with German legislation (Section 7 of the German Co-determination Act (MitbestG)), the Management Board is controlled by a Supervisory Board composed of equal numbers of shareholder representatives and employee representatives.

The Zeppelin Group Management Board: (from left to right) Peter Gerstmann, Alexandra Mebus, Christian Dummler and Fred Cordes



The Supervisory Board

The Chairman of the Supervisory Board of Zeppelin GmbH since June 2009 has been Andreas Brand, Mayor of the City of Friedrichshafen, who will take his well-deserved retirement on October 31, 2024. In the 2023 fiscal year, the Zeppelin Group Supervisory Board consisted of eight male and four female members. The Supervisory Board presents a report for each fiscal year, which is included in the Annual Report and published on the Zeppelin Group website. A detailed list of the individual members of the Supervisory Board and their other significant positions and obligations can also be found in the Annual Report and on the Zeppelin Group website.



3.3 Corporate values

Our mission, **“We Create Solutions”**, demonstrates that the Zeppelin Group’s aim at all times is to offer its customers a sustainable solution to increase customer satisfaction and maintain economic success.

The corporate culture of the Zeppelin Group is shaped by our identity as a foundation-owned company and its history. The establishment of Luftschiffbau Zeppelin GmbH and the Zeppelin Foundation in 1908 paved the way for today’s Zeppelin Group. That Zeppelin system of values is underpinned by the integrity and excellence of our employees. 2023 has shown again how Zeppelin employees put its values into practice every day, while also preserving the tradition represented by Graf von Zeppelin into the present, and carrying it forward into the future.



Our “Grafensätze” are the principles we follow in dealing responsibly with our colleagues, customers, service providers and partners, and they are a benchmark in the day-to-day activities of the entire Zeppelin workforce.

OUR TEN “GRAFENSÄTZE”

- 1 Grafen receive support
- 2 Grafen overcome boundaries
- 3 Grafen tip their hats
- 4 Grafen leave their footprint
- 5 Grafen make you think
- 6 Grafen get others on board
- 7 Grafen stay on course
- 8 Grafen move your heart
- 9 Grafen fail successfully
- 10 Grafen attract Grafen

Mission: **“We create solutions”**



WE

That means each individual, and Zeppelin employees as a whole are responsible for implementing our mission statement. We act across departments and countries in the interests of our customers.



CREATE

We plan, organize, shape, repair, calculate, analyze, manufacture, process, and advise. We provide tailored, well designed and reliable products and services for every customer.



SOLUTIONS

We find sustainable solutions for our customers and thereby increase customer satisfaction and our own success.

4 Sustainability at Zeppelin

4.1 Group and sustainability strategy

GRI 2-22

As a foundation-owned company, the Zeppelin Group is committed to the infinity principle and assumes responsibility in the areas of the economy, environment and society. For Zeppelin, sustainability means making a long-term, genuine contribution to the environment and society on the strength of our culture as a company that is fit for the future and economically successful.

Sustainable corporate governance is fundamental to future-proofing Zeppelin and is anchored in both the corporate strategy and in our corporate values. Stakeholder concerns are taken into account when developing and refining the sustainability strategy, whereby compliance with the applicable sustainability standards is a matter of course for Zeppelin. The Zeppelin Group's established standards are being implemented in less regulated countries. The Group Guideline on Sustainability defines the understanding of sustainability at Zeppelin, as well as its responsibility and focus in the action areas defined as material.

The goals of Zeppelin's **GPS Group strategy**, updated in 2023, remain continuous **Growth**, outstanding **Performance** and sustainable **Stability**:

Growth aims at the continuous growth of the Group. This is based on established business models with high customer benefits and new future-oriented business segments as well as products and technologies to ensure the company's competitiveness. Alongside organic growth, acquisitions also contribute to growth.

Performance means having the best team in our industries. Our employees recognize their customers' needs, use their skills in a targeted way, and offer perfectly tailored solutions. Equally important are efficient and digital processes and applications. Our aspiration is "Operational Excellence" in all areas.

Stability aims to ensure the long-term stability of the Group. The core of this pillar is our values-based corporate culture alongside our strong international partnerships and networks. In order to facilitate our growth projects, appropriate risk and compliance management systems are put in place, Group financing is secured in the long term, and the sustainability goals are clearly defined along with specific actions. Sustainable corporate governance ensures that environmental, financial and social aspects are viewed with equal priority, ensuring that sustainability management is lived and breathed in the organization.

GPS strategy of the Zeppelin Group



To incorporate sustainability into the corporate strategy, focus topics from the CSR area were included in the Zeppelin Group’s annual strategy process from 2020 to 2023. The strategy call is initiated by Group Development on behalf of the Group Management Board and determines the key focus topics for the annual further development of the strategy for the Group and the SBUs.

As part of the revised Group strategy in 2023, we also expanded the CSR strategy. Our ambitions: Zeppelin plays a significant role in the transformation of relevant industries into sustainable economic sectors. We therefore focus on the needs of our customers on their transformation to greater sustainability and are constantly expanding our portfolio of sustainable products and services.

CSR strategy of the Zeppelin Group



Zeppelin’s sustainability strategy also takes into account the UN’s 17 Sustainable Development Goals (SDGs), which are intended to ensure sustainable development worldwide at an economic, social, and environmental level.

SDGs and Zeppelin’s sustainability goals



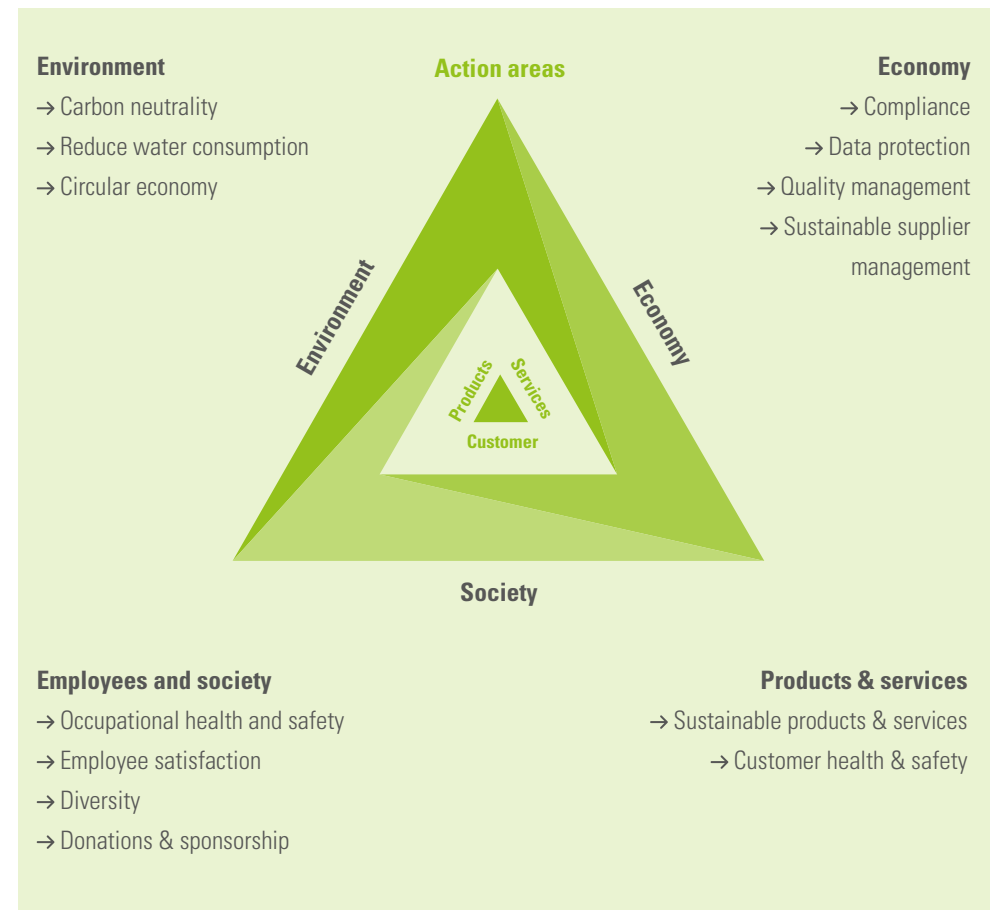
4.2 Stakeholder and materiality analysis

GRI 2-29, 3-1, 3-2

As a globally active company, it is of great importance for Zeppelin's business success to have an open and constructive dialog with all stakeholders. This helps us to build trusting relationships, deepen partnerships and learn about sustainability-related requirements for our business. Together with stakeholders, we identify sustainability topics relevant to Zeppelin, assess their urgency, and define action areas for ongoing improvements.

Based on stakeholder surveys and SWOT analyses, the materiality matrix was created for the first time in 2016 and continually updated and revised over the years. The identification of the material topics took into account both the recommendations of the Global Reporting Initiative (GRI) Standards 2021 and the requirements of the future Corporate Sustainability Reporting Directive (refer to section 4.8).

Material sustainability topics at Zeppelin



Key stakeholders of the Zeppelin Group and forms of communication

Stakeholders	Channels	Frequency and material topics
Internal		
Works Council	Direct	Involvement in specific projects such as New Work
Employees including subsidiaries/SBUs	Intranet, internal social network, newsletter, idea management, training courses, employee opinion survey, and town hall meetings	Feedback/sentiment, strategy and focus topics, sustainable developments, and CSR knowledge transfer
Sustainability management	Steering committees, CSR status update, Intranet, newsletter, jour fixes, direct	Requirements, objectives and implementation of measures, progress and challenges
Shareholders/bodies		
Supervisory Board	Reporting by the Management Board, Management Board directly, surveys and interviews (stakeholder dialog)	Monthly reports, three regular Supervisory Board meetings annually; CSR status quo and progress
Board of Trustees of the Zeppelin Foundation	Reporting	Quarterly reporting by the Chairman of the Management Board
Friedrichshafen Municipal Council as company representative	Reporting, surveys and interviews (stakeholder dialog)	Annual reporting on the annual financial statements, special reporting on topics relevant to shareholders
External		
Customers	Direct, customer visits, trade fairs, stakeholder dialog, customer inquiries (including direct, EcoVadis, and social media)	Products and services, sustainability indicators and measures
Caterpillar	Direct, stakeholder dialog	Work with Caterpillar to create customized solutions, participate in training, address product and market requirements
Suppliers	Direct, stakeholder dialog	Exchange and cooperation with suppliers
Government & authorities	Direct, stakeholder dialog	Direct, stakeholder dialog, legal cadastral register, communication on specific topics (trade associations, trade supervisory office, and environmental office)
Financing partners and investors	Bankers Day, press conference on financial statements, investor conferences, and stakeholder dialog	Regular dialog on financing topics
Associations	Direct, stakeholder dialog	Active work in associations
Science	Direct, stakeholder dialog	Projects with universities, lectures, seminars, discussion panels, and founder of the Zeppelin University Foundation

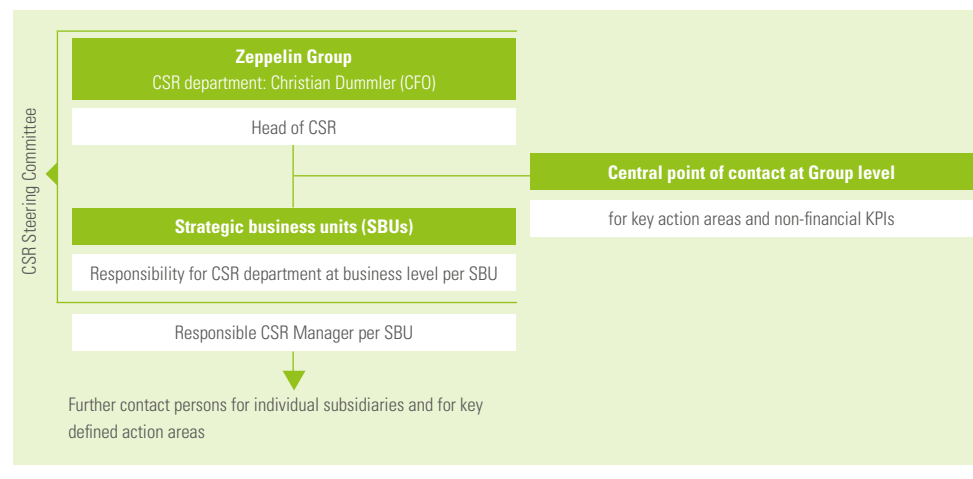
4.3 Sustainability organization

GRI 2-12, 2-13, 2-17, 2-18

The Group Management Board and the Chairman have overall responsibility for sustainability. A separate CSR department in the Group Management Board, under the responsibility of the CFO, promotes the anchoring of sustainability topics. At the same time, this unit manages and coordinates overall development across SBUs and countries in the Zeppelin Group.

The Head of CSR of the Zeppelin Group, who is appointed by the Group Management Board and regularly reports to the Board, coordinates stakeholder management, manages the further development of CSR topics throughout the Group, drives forward the further development of the sustainability strategy within the individual SBUs, is responsible for sustainability communication, and prepares the annual sustainability report.

CSR organization in the Zeppelin Group



For the action areas defined as material, a contact person is appointed at Group level, who drives forward the implementation of the targets, analyses the performance of the defined KPIs and agrees on suitable measures to ensure that the targets are achieved. In each SBU, responsibility for CSR is defined at management level. CSR managers are appointed at work level. They regularly report to the central CSR department on the development of sustainability management in their SBU. The CSR Steering Committee advises on current key topics at least three times a year, reviews the effectiveness of the measures, and ensures continuous improvement in the individual areas and thus overall for Zeppelin’s sustainability performance. It includes the responsible Group Managing Director, the Managing Directors responsible for CSR at SBU level, the central CSR office and individual heads of department. The Supervisory Board is involved in significant decisions and is kept informed by the Group Management Board. Example presentations approved in this format include the adopted modernization strategy for owned buildings (see section on carbon neutrality) and the overview of CSR investments made. Regular reporting was introduced at the end of 2022 in order to expand the knowledge, assessment skills and experience of the highest control body in the area of sustainable development. In the 2023 reporting year, the Supervisory Board received a report on the topic of CSR three times.

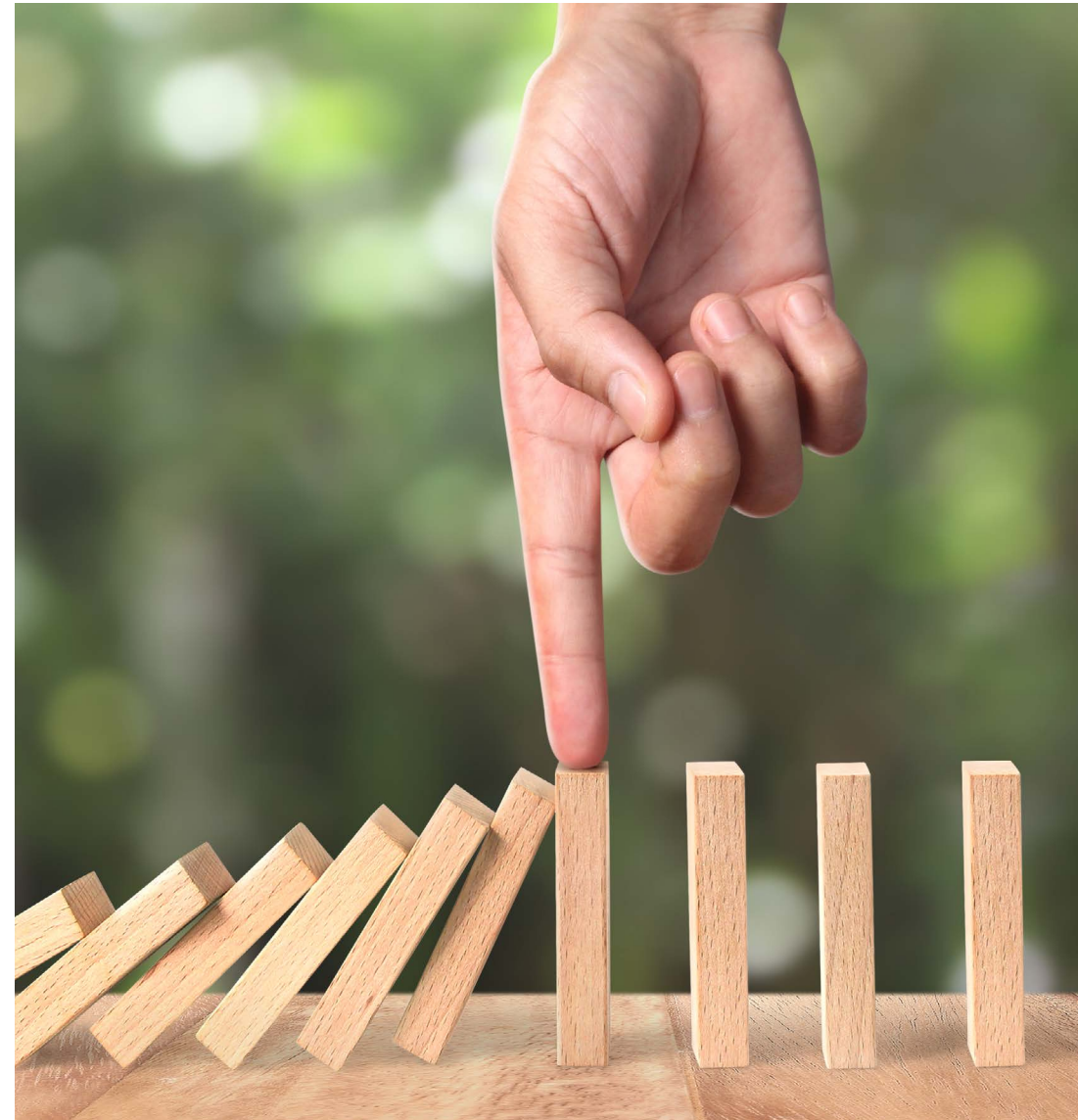
4.4 Risk management

GRI 2-16, 3-3

Risk management regulates the handling of risks and opportunities within a process, project or other company activities. The aim of the risk management process is to support management in its corporate decision-making, to improve corporate management and to provide transparency and certainty to stakeholders. Performance-oriented risk management is geared towards implementing the corporate strategy and is an integral part of corporate management. Risk management includes all measures taken to identify, analyze, evaluate, monitor, and control risks. The primary objective is to identify and reduce risks and to identify opportunities and their subsequent use cases. All SBUs or significant Group companies conduct risk management. Risk management with a focus on accounting and reporting is regulated in the Group Risk Policy, which falls under the remit of Group Controlling.

The Group companies employ an early detection system for risks to ensure that risks are identified at an early stage and countermeasures are initiated. The Group companies and the Risk Panel are responsible for setting up and monitoring the system at a higher level. It determines the risk-bearing capacity of the Zeppelin Group with the help of quarterly risk panel reports.

In addition to the Risk Management System (Group RMS), the Zeppelin Group also has other distinct governance, risk and compliance systems (GRC), which are used to evaluate risks in the central specialist divisions or sub-divisions. If significant risks are identified from these systems, these must be reported in the Group RMS. These include the GRC tool "OneTrust" (currently used for IT security, data protection and compliance), and the Tax Compliance Management System and the Tax Control Framework (TCF), through which the Group companies and the central divisions can identify, evaluate and deal with their risks. If significant risks are identified in these systems, these must be reported in the RMS.



In addition, the Group Management Board, together with the Risk Panel, determines which central divisions of Zeppelin GmbH report additional risks to the Risk Panel. These include IT security, data protection, compliance and corporate social responsibility. A detailed overview of the risks and opportunities of the Zeppelin Group can be found on page 87ff of the Annual Report 2023.

The procedure for determining risks and opportunities for processes and projects is contained in the “Risk Management” procedural instruction. The sponsor and/or the respective project manager are responsible for identifying risks and opportunities within a project. The process owner is responsible for identifying for his process the respective risks and opportunities, the persons involved, the necessary knowledge and the necessary tools, as well as other process-specific aspects. Identified opportunities and risks were assessed based on their probability of occurrence, failure rate or extent of damage. Risks and opportunities are assessed and taken into account in the decision-making process in all key decisions taken in the Group Management Board and the management bodies. Suitable measures for risk avoidance or mitigation and the use of identified opportunities are then defined. If the overall risk has decreased or is acceptable on account of the defined measures, key figures will be defined. If the overall risk has not decreased by the required amount, measures will be redefined. The effectiveness of the defined measures and KPIs is regularly reviewed as part of the ongoing improvement process and the management review process with the Group Management Board; changes are made as necessary.

Our business activities also have an impact on the environment and society. The following part of this report describes potential risks and opportunities of our corporate activities that could have a long-term impact on the environment and society, and explains which prevention and remedial measures are available in order to avoid potential risks, for each topic area.

Compliance and data protection

Environmentally and socially responsible corporate governance is not a direct legal requirement, but a matter of course anchored in Zeppelin’s corporate culture. Accordingly, Zeppelin’s Compliance Management System manages compliance risks. The focus in this regard is on the areas of corruption, export controls, and data protection. To this end, the Compliance and Data Protection department carries out appropriate risk assessments in order to identify, document and reduce risks.

Data security

The situation in the virtual space remained critical in 2023 – and the threat from cybercrime is greater than ever. Advancing digitalization and increasing networking are broadening the potential attack vectors and new, adapted attack methods seek to exploit them. For example, attacks based on artificial intelligence and the increasing level of professionalism with a service approach (“cybercrime-as-a-service”) are worrying. In addition, the changing geopolitical security architecture also presents a major challenge for German companies: Hactivism attacks and cyber wars in the context of political crises present risks that are difficult to assess. The main threat, however, remains ransomware as a financially motivated cyber attack. It is not just the professionalization (with the „ransomware-as-a-service” service), but also the increased pressure on affected organizations that poses victims additional challenges: the affected systems are no longer ‘just’ encrypted. Ransomware attacks are now associated with data outflow. For example, it is common practice for perpetrators to threaten the company concerned with the publication of the data in a second step (double extortion) and in a third step (triple extortion) and to demand non-disclosure for this in addition to ransom.

Zeppelin therefore regularly reviews its existing information security measures to ensure they are adapted to the current threat level. 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 threats described is essential. As part of the Group-wide information security management system, technical and organizational measures were therefore taken last year to counteract risks in a targeted manner. Examples of this are the establishment of Group-wide IT service continuity management to maintain business-critical business processes in the event of cyber attacks and IT crises, as well as further awareness training to strengthen the security culture in the Group. The human factor continues

to play a key role in many attacks. For this reason, awareness training and regularly simulated phishing attacks are carried out for all Group employees. These campaigns raise staff awareness of these risks and are accompanied by further technical measures. Security monitoring and security analytics ensure that anomalies are detected and attack attempts are prevented. Cyber risks are expected to continue to grow rapidly in the coming years, which means additional risks cannot be ruled out in this volatile environment despite preventive security measures. Legislation at European level in the form of the NIS2 (Network and Information Security Directive) contributes to all of this. In particular, the responsible managing directors are included in the private liability. New measures and deadlines, such as the obligation to report suspicious incidents to the responsible authorities within 24 hours or applying common industry standards, aim to make companies more resilient. The most common industry standard in Europe, ISO27001:2022, requires the use of technology such as data loss prevention, third-party management, detective and reactive measures. Some of these new ISO controls, such as Threat Intel and Monitoring Activities, can already be mapped by Zeppelin today.

Quality management

In addition to optimizing internal processes and improving product and service quality, transparent and fair handling of complaints also plays an important role. Standardized processes can achieve lower reject rates, reduce material usage, and thus save resources and energy. Due to Zeppelin's extensive product and services portfolio, a standardized procedure is crucial to ensure the health and safety of customers and to avoid risks in advance. To ensure high-quality products and services, and to meet our customers' needs and requirements, we have implemented a uniform management system in accordance with DIN EN ISO 9001:2015 in the German companies. This underscores the quality awareness for internal and external purposes.

Supplier management

The Supply Chain Due Diligence Act gives particular relevance to human rights risks such as child labor, forced labor, and slavery. Failure to properly manage suppliers could result in risks in these areas. On the other hand, companies in Germany will have to ensure that their supply chains comply with the requirements of three international environmental agreements in the future. From 2023, for example, supply chains have also been subject to requirements for the use and handling of mercury, for the production and handling of certain hazardous persistent organic pollutants, and for the import and export of hazardous substances (Minamata Convention, Stockholm Convention and Basel Convention). Moreover, companies have had to prevent or mitigate certain environmental damage if human rights are otherwise violated. This means, for example, that companies must prevent harmful changes in soil, water or air pollution if this would significantly impair the production of food, deny a person access to safe drinking water, or damage a person's health. In order to take this responsibility into account and operate sustainable supplier management, Zeppelin created a Code of Conduct for Suppliers in the 2023 reporting year. This contains provisions governing Zeppelin's cooperation with the supplier and forms the basis for all future deliveries and projects. Zeppelin and the supplier undertake to adhere to the principles and requirements of the Code of Conduct and to comply with applicable laws. Zeppelin reserves the right to monitor the obligations to comply with the Code of Conduct as part of regular risk analyses and, among other things, to implement preventive measures with the supplier in accordance with the Supply Chain Due Diligence Act.

Customer health and safety

According to the German statutory accident insurance body, there is a high risk of injury within the construction industry. To prevent accidents and illnesses, it is particularly important for Zeppelin to draw customers' attention to the risks involved, to encourage correct handling, and to conduct preventive work through training. Due to the company's wide range of products, different approaches exist within the strategic business units (for further information refer to section 6.2).



Employee satisfaction and diversity

Societal trends such as the demographic change and the shortage of skilled workers increase the risk of bottlenecks. Zeppelin’s long-term success is based on attracting and retaining qualified employees. For this purpose, Zeppelin relies on the work-life balance, health initiatives such as Z FIT, flexible working hours and employee networks to take into account the different needs of a diverse workforce. Strategic employer branding strengthens attractiveness as an employer. Leadership plays a decisive role in employee motivation, supported by modern principles and feedback from the global Z VOICE employee opinion survey. Further training opportunities are used to reduce the risk of employees leaving the company. Change management measures with targeted training for the workforce are also intended to facilitate adaptation to market trends and digitalization in order to reduce the adaptation risk.

Occupational health and safety

At Zeppelin, the health and safety of employees are paramount. Particularly in field service, hazardous situations can arise in which employees have to react independently and flexibly. With the help of our Vision Zero and our occupational health and safety measures, we want to prevent accidents to the fullest extent possible. The occupational health and safety management system in accordance with DIN ISO 45001 in all German companies helps us to be legally compliant and to continuously improve our processes.

Donations & sponsorship

For Zeppelin as a foundation-owned company, business and corporate social responsibility are inseparable. Charitable organizations and charitable projects can be supported through targeted funding. This establishes a better understanding and better cooperation within the company in the long term. To ensure that no preference is given to specific stakeholders, it is important to be careful when selecting donation and sponsorship activities and to ensure that they are in line with the company’s values and beliefs. For this reason, Zeppelin has developed a donation and sponsoring policy as well as internal review processes (see the “Donations & sponsorship” section for more details).

Environmental risks

Significant environmental risks may arise as a result of the company’s activities. Some examples of these risks are the release of harmful chemicals or waste, the use of fresh water within water stress areas, and the impact of climate change on greenhouse gas emissions. These risks may not only harm the environment, but also have a negative impact on people’s health and on the economy. Zeppelin actively counteracts these risks through regular official audits, the energy and environmental management system, and many site-specific measures. An in-depth context analysis with regard to environmental conditions along with the assessment of environmental aspects help to assess risks and opportunities in detail.

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 adjustments due to new or stricter laws and requirements as a risk and field of action in this regard, for example. In addition, there are higher operating and investment costs, which arise, among other things, from the technical need to convert systems and devices or to renovate existing properties to be more energy efficient. 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 reacts in good time to the changes that the transformation to a more environmentally friendly economy entails. We also anticipate opportunities that arise as a result, such as tapping into new sales markets, generating new business models, improving competitiveness by changing the product and services portfolio, or 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 potentially 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 structural measures such as the expansion of flood protection, irrigation and drainage systems and energy-efficient building refurbishment. 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. Zeppelin counteracts potential climate risks at an early stage through sustainable corporate governance and its voluntary commitment to achieving its own sustainability goals. In particular, this includes the goal of becoming a carbon-neutral company in ongoing business 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.

4.5 Human rights due diligence

GRI 2-23, 2-24, 2-25, 408-1, 409-1

The Zeppelin Group is committed to guaranteeing and protecting the human rights of every individual. Based on its values of integrity and excellence, Zeppelin is committed to fairness, appreciation, transparency and democratic social order in order to contribute to global peace and the freedom of all people. Violence, discrimination, hate speech, excessive nationalism and defamatory political disputes are rejected. Zeppelin values the diversity of its employees, rejects all forms of discrimination and is committed to diversity and equal opportunities, regardless of age, gender, religion, ethnic origin, or sexual orientation.⁹ Respect for human rights is also reflected in their integration into internal guidelines. The Group's sustainability guidelines are based on the International Bill of Human Rights, the International Labor Organization's (ILO) Declaration on Fundamental Principles and Rights at Work, and on the principles of the UN Global Compact, which Zeppelin signed up to in 2016. As part of the human rights due diligence process, the Zeppelin Group implements a continuous improvement process. One consequence of this is that internationally recognized human rights are respected and supported at all locations.

Zeppelin has recorded its desired corporate and social conduct in the Code of Conduct for Business Ethics and Compliance. These are guidelines for dealing with customers, business partners and colleagues. Anyone who is part of Zeppelin – no matter where in the world – is obliged to follow the Code of Conduct when carrying out their activities and must always practice values such as integrity, respect, transparency, and openness. In addition, Zeppelin has set out the goal of optimizing its corporate actions, products and services in terms of sustainability, in a Code of Conduct for Suppliers. This Code forms the basis for all future deliveries and projects. The contracting parties agree to comply with the principles and requirements of the Code of Conduct, and to commit to contractually obliging their subcontractors to comply with the standards and regulations set out in the Code of Conduct.

Zeppelin also follows a preventive compliance approach to ensure compliant conduct. Possible transgressions of the rules should be ruled out in advance where possible. In addition to the Code of Conduct, compliance guidelines provide specific instructions in unclear situations. The Zeppelin Trustline is an online whistleblower system that can be used to submit reports in any language relevant to the Zeppelin Group. The system offers the option of contacting the Zeppelin Group anonymously and confidentially, including on matters relating to human rights due diligence.

4.6 Certifications and ratings

Numerous certifications and ratings demonstrate Zeppelin's success in the environmental, economic, and social areas:

Integrated Management System (IMS) according to ISO 9001, ISO 14001, ISO 50001, and ISO 45001

Das Integrierte Managementsystem bei Zeppelin hat das Ziel, eine kontinuierliche Verbesserung für die The Integrated Management System at Zeppelin aims to ensure continuous improvement for the certified areas of occupational health and safety, environmental protection, energy and quality management, and to create uniform standards and a common documentation basis within the scope of the IMS. The IMS was certified for the first time for all German Group companies in 2019 and retested in 2022 as part of the recertification process, which takes place every three years. In the 2023 reporting year, a monitoring audit was carried out by our external certifier, in which the effectiveness of our energy management system (ISO 50001) in Germany and the national companies in the Czech Republic, Austria, Poland, Slovakia, Sweden and Denmark was confirmed. An external audit also attested to Zeppelin's high standards in Germany in the areas of environmental management (ISO 14001), occupational health and safety (ISO 45001), and quality management (ISO 9001). The certificates can be viewed on the Zeppelin website in the sustainability section.

⁹ The Zeppelin Group is not aware of any child labor, forced labor or compulsory labor at its sites in the reporting period ending December 31, 2023.

Certifications to ISO 9001, ISO 14001, ISO 50001, ISO 45001



Certification by the “berufundfamilie audit”

For years, Zeppelin has been committed to providing all employees with an environment that enables them to balance their professional and private lives. This is why Zeppelin has been awarded the “audit berufundfamilie” seal for the third time. The distinction includes Management Holding Zeppelin GmbH and the German companies of the Construction Equipment Germany & Austria, Rental, Power Systems, and Plant Engineering strategic business units, including Zeppelin Lab. The numerous initiatives and measures provided were positively incorporated into the assessment.



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Successful Creditreform rating

Die Creditreform Rating AG, eine der führenden europäischen Ratingagenturen, beurteilt regelmäßig die Creditreform Rating AG, one of the leading European rating agencies, regularly assesses the economic position of the Zeppelin Group. As part of an independent corporate issuer rating, Zeppelin GmbH’s creditworthiness was ranked with an overall rating of A- and the current outlook as “stable” on September 4, 2023. With this very good corporate rating, Zeppelin has again been certified as having a high creditworthiness and low default risk. Further details on the rating are available at [creditreform-rating.de](https://www.creditreform-rating.de).

EcoVadis rating

Selected Zeppelin national subsidiaries are assessed as part of EcoVadis ratings in terms of their CSR activities in the areas of environment, labor and human rights, ethics, and sustainable procurement. A number of instances of Zeppelin’s commitment have been recognized in the EcoVadis Sustainability Rating: Zeppelin Rental GmbH achieved a Platinum rating, Zeppelin Power Systems GmbH and Zeppelin Österreich GmbH achieved Gold, Zeppelin Sverige AB (Sweden) and Zeppelin Systems GmbH were awarded the Silver Seal, and Zeppelin Baumaschinen GmbH received Bronze.

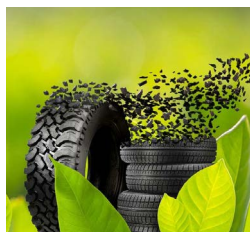


4.7 Membership of associations and initiatives

GRI 2-28

Zeppelin’s commitment to sustainability is also borne out by its membership of and active participation in initiatives and associations:

Zeppelin Sustainable Tire Alliance



Under the umbrella of the “Zeppelin Sustainable Tire Alliance”, established in March 2023, Zeppelin Systems together with its international partners is striving to shape a sustainable future for the tire industry and make even better use of existing potential. Through the combined expertise of the technology group, customers receive holistic tire recycling solutions on a sustainable basis, from a single source and always at the cutting edge. At the same time, the Alliance helps to promote the circular economy and conserve Earth’s valuable resources.

UN Global Compact

In December 2016, Zeppelin GmbH joined the UN Global Compact as a sign of its corporate responsibility, and has since put every effort into implementing and promoting the ten principles of the UN Global Compact.



Forum Compliance Mittelstand
– eine Initiative des Zentrums für Wirtschaftsethik



Diversity Charter

The Zeppelin Group has been a member of the Diversity Charter since September 2020, a German employer initiative to promote diversity in companies. By signing up to the Charter, we made a voluntary commitment to consciously promote diversity and respect

Founding partner of “Employers for Equality”

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. These memberships promote Zeppelin’s visibility among professionals and experts and also increase its attractiveness as an employer.

Forum Compliance Mittelstand (FCM) working group

The Zeppelin Group is also a member of the SME-focused Forum Compliance Mittelstand (FCM) working group in Germany. The Forum is a voluntary union of small and mid-sized enterprises and associations that serves to promote and spread a value-driven way of doing business among companies of a similar size. Topics relating to the implementation of effective compliance management and monitoring in SMEs are discussed. The FCM works at the intersection of business and ethics, and fosters dialog between researchers and the world of business.

“Fair Company” initiative

It goes without saying that the Zeppelin Group treats interns fairly and responsibly. Zeppelin has been a member of the Fair Company initiative since July 2018 and is committed to complying with defined quality standards. Fair Company is Germany’s largest and most well-known employer initiative committed to a fair working environment in the long term, and is aimed specifically at young professionals and career entrants.

4.8 Current priorities and projects

GRI 302.2 305-3

Corporate Sustainability Reporting Directive (CSRD)

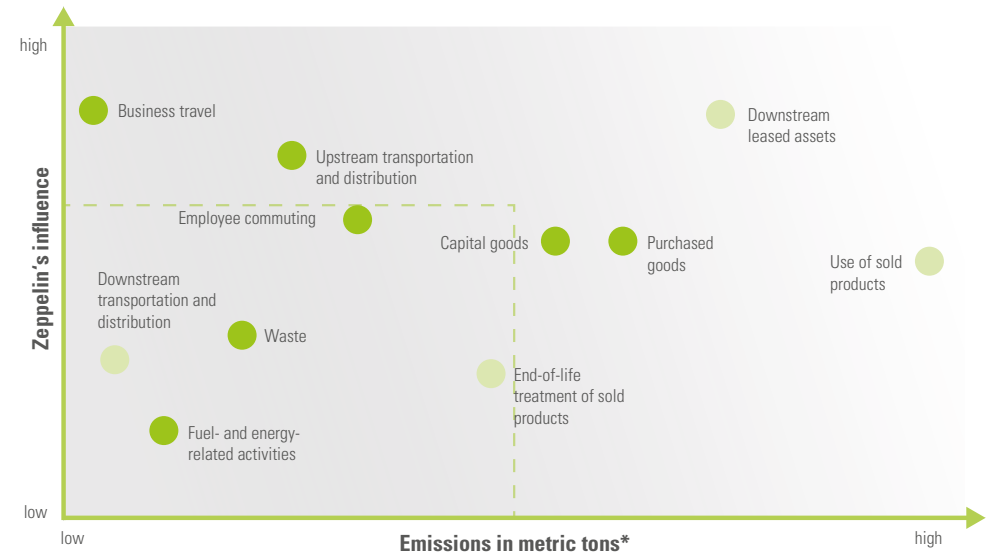
Under the Corporate Sustainability Reporting Directive (CSRD), the Zeppelin Group is required to disclose sustainability information in the management report for the first time in the 2025 fiscal year. The company must report on all sustainability aspects that meet the criteria of double materiality. The European Sustainability Reporting Standards (ESRS) published in July 2023 outline the reporting obligation. On this basis, a double materiality analysis was started in the second half of the reporting year to identify material sustainability topics for Zeppelin in accordance with the CSRD. After an initial assessment of all ESRS topics by the central CSR department and the respective responsible specialist departments, interviews with selected stakeholders and a gap analysis will be carried out in the first quarter of 2024. The topics will then be prioritized by the central CSR department and the individual strategic business units based on the assessment criteria of scope, severity, irreversibility, and likelihood. The main reporting topics will be defined once the evaluations have been completed. Procedural and technical adjustment processes for the collection of non-financial indicators, data collection, integration into the annual report as well as communication and training measures are running in parallel.

Measurement of Scope 3 emissions

In the 2023 reporting year, the “Greenhouse” project was initiated in order to determine a reference point for the Zeppelin Group’s Scope 3 emissions for the first time. Scope 3 includes all emissions from activities that occur downstream or upstream of Zeppelin’s own business operations in the value chain, including 15 categories such as “purchased goods and services”, “transportation and distribution” or “use of sold products”. The baseline for the data was set at 2022. The most important Scope 3 categories for Zeppelin were determined by means of a hot spot analysis (see graphic). Both the level of emissions per category and Zeppelin’s opportunities to influence these emissions were assessed. As a result, eleven relevant categories were identified for Zeppelin. This includes the category “Use of sold products”, which generates the most CO₂ emissions. Based on the preliminary calculation, the share of Scope 3 emissions

in the Zeppelin Group’s total emissions is around 99 percent. In 2024, we will focus on optimizing the processes for future data collection.

Hot spot analysis of Scope 3 categories



- Downstream categories
- Upstream categories

*Logarithmic scaling (lg10)

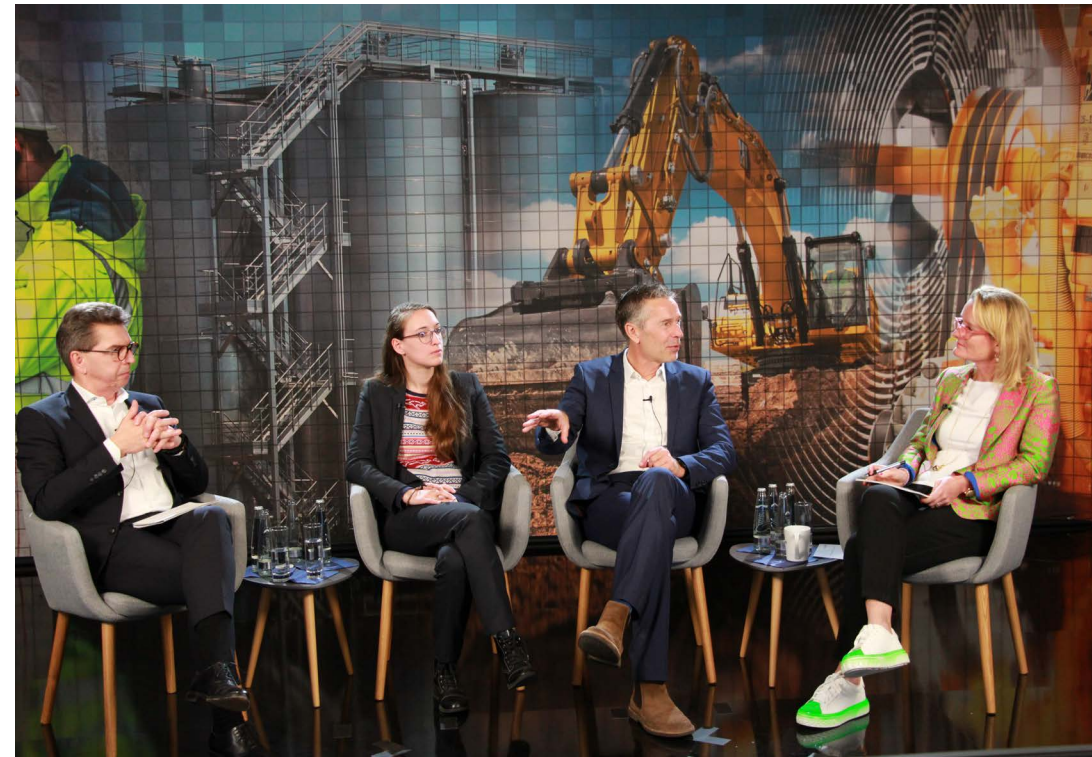
EU Taxonomy and Project Impact

From the 2025 fiscal year, Zeppelin is obliged to report in accordance with the EU Taxonomy. The EU Taxonomy is a classification system for sustainable economic activities. The overarching objective is to promote sustainable investments to achieve the objectives of the EU Green Deal. In 2023, an interdisciplinary project team was set up to meet the requirements of the EU Taxonomy Regulation. The central components of the project are to identify Zeppelin’s taxonomy-eligible and taxonomy-aligned economic activities and to derive the associated KPIs (sales, operating and capital expenditure). In 2024, an implementation concept will be developed and the financial processes and systems adapted accordingly. This will ensure that the required data can be collected during operation or with minimal expense. At the same time, the “Project Impact” focuses on creating transparency of impact. The aim of the project is to present Zeppelin’s portfolio of sustainable products and services.

CSR Week

Conveying knowledge, promoting discussion and creating a deeper understanding of corporate social responsibility (CSR) – these are the goals of CSR week, which Zeppelin hosted from November 7 to 9, 2023. A campaign in the lead-up to CSR week sought to raise awareness of CSR issues. Employees worldwide followed the four events broadcast virtually in German and English. In addition to an inspiring keynote speech by science journalist Dirk Steffens, employees were given the opportunity to discuss with Group management, customers and partners in live interactive sessions. Issues focused on during the event were climate and environmental protection, transformation to sustainable business, employee satisfaction, employer attractiveness and sustainable products and services. The event was accompanied by CSR booths and talks by sustainable start-ups at Zeppelin headquarters in Garching, as well as the official launch of the CSR e-learning course. In addition, a CSR quiz was organized for employees, with the winners able to select a charitable organization to which Zeppelin then donated EUR 1,000.

Panel during CSR Week 2023: (from left to right) CFO Christian Dummler, Head of CSR Ramona Kail, science journalist Dirk Steffens, Group spokesperson Sandra Scherzer as host





FINANCIAL SUSTAINABILITY

**Success through
sustainability**

5 Financial sustainability

For Zeppelin, economic sustainability is a basic requirement for the long-term safeguarding of economic success and expansion of our competitiveness. The economic action areas identified as material include compliance, data protection, quality management, and supplier management.

5.1 Compliance

GRI 2-16, 2-23, 2-24, 2-25, 2-26, 2-27, 3-3, 205-1, 205-2, 205-3, 206-1

A self-evident part of management and corporate culture

The ethical basis for compliance at Zeppelin is the conviction that social responsibility, observance of the law, and conduct with integrity are essential for long-term business success. Compliance with legal requirements, official regulations, and internal corporate guidelines is a key part of Zeppelin’s management and corporate culture.

As part of its compliance management system, the Zeppelin Group has set up various processes to prevent and detect compliance violations and to take remedial action. Internal rules and guidelines provide management and staff with clear guidance and explain the ethical and legal motives behind the compliance program.

The Zeppelin Code of Conduct for Business Ethics and Compliance describes these fundamental principles of business conduct – within the Group, but also vis-à-vis partners and the public at large. In connection with Zeppelin’s partners, i.e. suppliers, service providers, and subcontractors, the Group has set out its expectations in the Code of Conduct for Suppliers and at the same time defined them as the basis for cooperation. Integrity is an irrefutable corporate value in all business activities and relationships.





Any form of corruption, bribery, extortion and embezzlement in business transactions or violation of export control regulations and sanctions are rejected. The scope of compliance requirements and desirable conduct in order to meet them are explained to all employees through information and training. These address not only rules that must be complied with, but also the early identification of risks and transgressions and the submission of information in order to eliminate possible abuses.

The internal compliance organization ensures that the compliance management system is coordinated throughout the Group and that contact persons, who employees can turn to in confidence, are available within all companies. A separate e-mail address for questions and information relating to compliance matters has also been set up.

There is also an online whistleblower system, Trustline, that can be used to submit reports in all languages relevant to the Zeppelin Group and its business partners. The system offers the option of contacting the Zeppelin Group or the relevant Zeppelin company anonymously and confidentially. Zeppelin works with an external partner to provide this reporting system; our partner continually updates the system to reflect the laws and requirements of worldwide whistleblower reporting. The system is compliant with the General Data Protection Regulation, and is audited and certified according to ISO 27001.

External ombudsmen are appointed in selected countries in which Zeppelin operates. They make it possible to confidentially contact a neutral and qualified person of trust with any questions relating to compliance and, in particular, relating to compliance with legal requirements and internal guidelines. In addition, it is possible to make contact directly via the responsible Chief Compliance Officer (CCO) and the employees of the Compliance Organization. All contact channels are available to employees, business partners, and other third parties on an equal footing.

Progress in compliance

Progress on objective

→ Ensure a high training rate in the area of compliance: over 90%¹⁰

A compliance culture in which compliance with legal and ethical obligations is a matter of course can only develop with the necessary knowledge and awareness of compliance. Through regular training, the company informs its employees and managers about Zeppelin's values, the application of which makes an important contribution to working together with integrity. The aim is for the proportion of employees with valid compliance training to be greater than 90% over a rolling period of four years.

The compliance training concept at Zeppelin consists of workshops for management and employees, which teach the challenges of compliance in management responsibility and the understanding of values within the Zeppelin corporate culture. Supplementary e-learning programs provide basic compliance knowledge and material statements of the Zeppelin Code of Conduct for Business Ethics and Compliance for all employees (basic training) as well as basic principles of corruption prevention for particularly exposed employees, e.g. those working in purchasing and sales roles.

¹⁰ Target adjustment compared with previous year: Increased compliance training rate from over 80% to over 90%

Participation rate for the Compliance basic training

Total number and participation rate	Unit	2021	2022	2023
Overall participation	Number	7,977	8,285	9,860
of whom managers ¹¹	Number	40	58	903
Total participation rate	%	75.6	80.5	96.8

Since 2021, all employees have had to complete the “Compliance Basics” training module. This module explains the topics of correct conduct, corruption prevention, antitrust law and other topics. This module is mandatory. Starting in 2024, the “Dealing with business partners” module will also be available and will focus on corruption prevention for those working in purchasing, sales & marketing, prevention of money laundering and terrorist financing, export controls and dealing with embargoes. The module is aimed at selected exposed employee groups.

Compliance transgressions

Transgressions and resolution rate	Unit	2021	2022	2023
Reported transgressions	Number	23	25	30
of which confirmed transgressions	Number	11	15	9
of which resolved transgressions	Number	6	14	9
Compliance resolution rate	%	55	93	100

Fines, penalties or forfeiture imposed by final judgment

Fines / corruption cases	Unit	2021	2022	2023
Amount of fines, penalties and forfeitures imposed by final judgment	Euro	0	0	0
Corruption cases	Number	0	0	0
Total number of legal proceedings due to anti-competitive conduct and transgressions of antitrust and monopoly law	Number	0	0	0

All reports received in the 2023 fiscal year were promptly checked, and confirmed compliance violations were processed and substantially corrected by the Compliance organization in cooperation with the relevant departments, in particular the Audit department and the Legal department.¹² Violations from 2023 that have not yet been remedied are still being processed. The majority of violations discovered at Zeppelin were incidents in the areas of fraud and export control law. They were either reported via notifications or discovered due to existing internal controls of the Compliance Management System. All cases occurred within the Zeppelin Group and did not involve any third parties. They did not have a negative impact on the economic stability of the company. In recent years, there have been no known cases of non-compliance with laws resulting in fines, penalties or forfeiture.¹³

Measures in 2023

The goal of the Compliance organization is to provide as many employees as possible with an easy introduction to the topic of compliance through the training program (e-learning). Therefore, it was important to offer a learning program with a wide range of languages. Both e-learning modules are available in German, English, French, Italian, Polish, Portuguese, Russian, Slovak, Czech, Mandarin and Ukrainian. The training modules have been created with a responsive design and can therefore be taken on all mobile devices. The introduction of a Learning Management System at Zeppelin has made it possible to create a breakdown of the training courses by region and to prepare a corresponding report. Based on this information, targeted communication is planned to increase the participation rate and achieve the defined targets.

¹¹ In the 2021 and 2022 reporting years, the data only included management (senior management level); from the 2023 reporting year, the indicator has included all management levels of the Group.

¹² Unresolved cases were still in resolution at the time of reporting.

¹³ Forfeiture is a measure for asset recovery provided for in criminal law.

5.2 Data protection

GRI 3-3, 418-1

Protection of personal rights and the right to informal self-determination

The task of data protection is to protect individual rights and in particular, the privacy of each person. To this end, the processing of personal data has been comprehensively regulated in many countries around the world and data subjects have been granted rights to protect their own personal data. In the spirit of the Grafensatz "Grafen tip their hats", the Zeppelin Group respects compliance with data protection requirements not only as a legal requirement, but also as an expression of honest, fair and responsible conduct. Zeppelin employees and business partners should be able to rest easy in the knowledge that their personal data can be protected.

To meet the ever-increasing legal requirements, as well as the importance given to data protection in the Zeppelin Group, Zeppelin maintains the Compliance and Data Protection division in the holding company, whose primary task is the ongoing development of the data protection management system within the Zeppelin Group. The division manages the global data protection organization, consisting of the Group Data Protection Officer as well as other data protection officers, data protection coordinators, and contact persons for data protection in the companies. These persons work together to ensure that the personal data of employees and business partners is handled in accordance with legislation. At the same time, they develop and support the introduction of necessary data protection and data security measures and further develop existing measures. However, the development of new digital products and services for customers, as well as the internal introduction of new tools and platforms, are also closely managed and monitored by the data protection organization. The data protection organization thus represents the interface to information security, which supports the projects from a technical perspective and in close coordination with Data Protection.

Progress in data protection



Progress on objective

→ Avoidance of data protection breaches through information and training

The main objective is to prevent data protection violations by providing targeted information and regular training for employees. Employees are made aware of data protection matters as part of the training and must take mandatory e-learning courses on data protection and information security. The overall participation rate in the basic training on data protection is the performance indicator for monitoring progress and is determined in relation to the number of employees (headcount, excluding trainees) as of December 31, 2023 in relation to the total number of participants.

Participation in data protection basic training

Total number and participation rate	Unit	2021	2022	2023
Overall participation	Number	4,301	7,080	7,871
Total participation rate	%	40.8	68.8	77.2

The Group Data Protection Guideline is the central, binding policy on data protection management at Zeppelin and summarizes the rights and obligations, as well as the desired conduct, when handling personal data for all employees. Accompanying guidelines, including their visualization, process summaries, as well as information brochures and data protection notices for employees, provide guidance and transparency at the same time. Further information and templates are available at all times for all employees at a central point.

In addition, customers can obtain information on all of Zeppelin's apps and websites about the processing of personal data when using our websites, apps and platforms, but also when using our services. Fair and responsible behavior towards customers also means being transparent in what you do.

Data protection complaints

Category	Unit	2021	2022	2023
Reported data protection complaints (in accordance with Article 33 GDPR)	Number	10	56	32
of which breaches reported to supervisory authorities	Number	0	6	2
Complaints concerning breaches of customer data protection	Number	N/A	N/A	0
Complaints from external parties	%	N/A	N/A	0
Complaints from supervisory authorities	%	N/A	N/A	0
Total number of identified cases of data theft and data loss related to customer data	Number	N/A	28	0

The introduction of new data protection management software in December 2021 resulting in the digitalization and harmonization of numerous processes of the data protection management system within the Zeppelin Group. Among other things, the possibility of reporting data protection violations online has been created, which makes it even easier for employees to report such violations. At the same time, the process for incoming reports has been further optimized, which in part leads to earlier involvement of the data protection organization and, if necessary, information security. At the same time, the adapted processes can be used to make significantly better evaluations with regard to the types of data subjects and the type of data protection incident. In 2023, the option was also created to report data protection violations via the Zeppelin Trust Line. This means that third parties can now also use a reporting channel for data protection violations. This can also be used anonymously.

Measures in 2023

The Zeppelin Group is continuously working on refining and improving its data protection management system (DMS). In addition to the continuous development of the existing data protection management software and the underlying processes, work on the development of a communication and the training concept was also stepped up in 2023. In 2023, the “GDPR Readiness Check” also included a status quo analysis with a risk assessment which determined the current status of the DMS within the Zeppelin Group and initiated numerous measures for improvement.

5.3 Quality management

GRI 3-3

High-quality products and services from Zeppelin

Ensuring high-quality services and products, as well as meeting the requirements and needs of customers, is essential for Zeppelin’s success as a foundation-owned company that operates sustainably. Satisfied customers form the basis for long-term cooperation based on partnership and trust. Zeppelin attaches great importance to this as part of its quality policy, which was published as Group Guidelines. Zeppelin lives by its special awareness of quality in all companies and across national borders, which is underlined in the German companies by a uniform management system in accordance with DIN EN ISO 9001:2015 for internal and external purposes.

The Group Management Board actively promotes the continuous improvement of quality by providing the necessary resources, data and information, and appoints a quality management officer for this purpose whose role is to ensure ongoing development of the management system. The effectiveness of the quality management system is reviewed once a year as part of the management review by the Group Management Board.

All Zeppelin employees are appropriately trained and qualified and make a significant contribution to ensuring high quality is achieved. Every manager and every employee is committed to ongoing further training, a willingness to learn and acceptance of quality improvements.

Progress in quality management

→ Progress on objective 1

→ Use the knowledge and innovativeness of employees for ongoing improvement and optimization

The Zeppelin Group encourages its employees to develop their own ideas and contribute them to the company. As part of the Z IDEA ideas management system, employees are given the opportunity to improve processes and develop new ideas. This not only advances the company, but also promotes interdisciplinary team building and dialog. Every idea that is evaluated positively will be rewarded with a bonus. Based on the positively evaluated and award-winning ideas, knowledge and innovativeness are evaluated for continuous improvement. For ideas with a quantifiable benefit, the idea generator will be entitled to an implementation bonus of 10% of the value of the idea's benefit; implementation bonuses are subject to a country-specific cap. For ideas without a calculable benefit, the idea generator is entitled to a country-specific flat-rate bonus, which is paid out in full before implementation.

In 2023, around 21% of the ideas submitted received an award and a total of EUR 49,425 was paid out to Zeppelin idea generators. A total of 23 IDEA generators with 15 ideas were recognized in the Z IDEA Award in the following four categories: "Best Idea", "Best Campaign Idea", "Best Unfeasible Idea" and "Expert of the Year". Due to the war of aggression against Ukraine, employees of the companies Zeppelin Ukraine, Zeppelin Russia, and Zeppelin Power Systems Russia were not included.

In addition, Zeppelin Ideas Management is linked to the promotion of charities. For each submitted idea that is assessed by an expert within 30 days, 50 will automatically be added to a notional donation account. The beneficiary charities will be announced and the donations presented at the Z IDEA Award event, which this year takes place in July.

At the presentation of the Z IDEA Award 2023: (from left to right) Chairman of the Group Works Council Ralph Misselwitz, CHRO Alexandra Mebus and CEO Peter Gerstmann



Ideas submitted to Z IDEA and rewarded

Category	Unit	2021	2022	2023
Ideas submitted	Number	622	434	352
Rewarded ideas	Number	119	52	74
Share of rewarded ideas	%	19	12	21
Prize amount ¹⁴	Euro	38,652	24,122	49,425
Donation amount (Z IDEA Award) ¹⁵	Euro	24,000	0	20,000

¹⁴ The actual prize paid may differ as payment is made with the payroll in the local currency; in some countries, the exchange rate may fluctuate greatly (e.g. Ukraine and Armenia); the data provided was converted using exchange rates as of April 17, 2024.

¹⁵ The donation amount for 2021 is derived from the years 2019 and 2020, as no Z IDEA Award took place in 2020 due to coronavirus; the donation amount for 2023 is derived from the years 2022 and 2021, as no Z IDEA Award took place in 2022 due to the war in Ukraine.

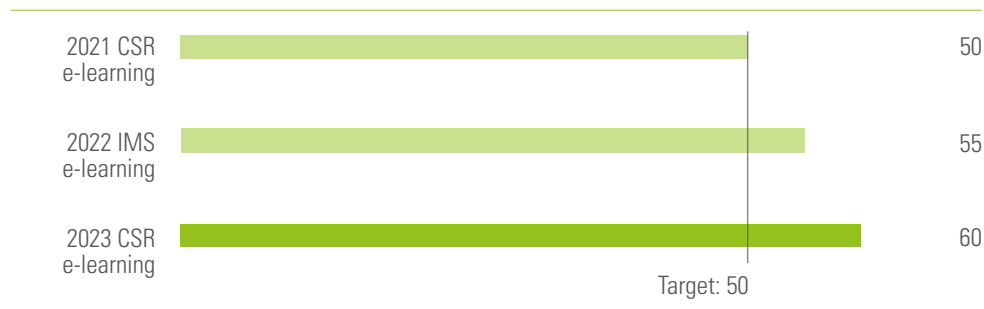
→ Progress on objective 2

→ Ensure a high training rate on the Integrated Management System (IMS) and CSR: over 50%

The first e-learning course on the Integrated Management System (IMS) was rolled out in 2019 for all employees falling within the scope of application of the IMS. In 2021, a separate e-learning course on “Sustainability at Zeppelin” was established worldwide in order to create a uniform understanding of CSR across national borders and to provide concrete tips on the integration of sustainability into everyday life. The areas on which the e-learning courses focus are updated annually and change depending on the training needs. The target of a participation rate of more than 50% in e-learning is currently only monitored for the mandatory e-learning courses in the area of IMS and has been achieved every year.

There was no new IMS training in the 2023 reporting year. At the end of 2023, a new e-learning course on CSR at Zeppelin was developed and advertised worldwide within the Group. The participation rate for this voluntary e-learning course is 60%, which is above the target. This is testament to employees’ significant interest in sustainability topics.

Change in participation rate in e-learning modules IMS & CSR (participants in %)



Measures in 2023

Optimization of process management

In 2022, Zeppelin conducted an analysis of the Internal Control System (ICS) for the relevant Group companies. Potential for improvement in the areas of automation, documentation and process efficiency was identified. Use of the identified potential for improvement began in 2023. This involves integrating key end-to-end processes of each company into the process management program in order to be able to monitor and improve them in the long term. In 2022, the program was introduced in the Group Tax department and in the Operational Excellence department of Zeppelin Rental GmbH. The pilot project and launch took place at Zeppelin Systems GmbH in 2023. The roll-out is currently taking place at Zeppelin CZ s.r.o., as well as the implementation planned by mid-2025 in the ten largest companies selected based on sales volume.

The Plant Engineering SBU and Power Systems SBU have also begun to introduce new management software to supplement the system described above. Using the web-based program, it is possible to view process descriptions, procedural and work instructions as well as further documents via a central information database, to make day-to-day work easier. The system will serve as a comprehensive knowledge management tool for all employees.

Employee training

The e-learning on CSR, newly developed in 2023, contains eight voluntary learning units including an introduction video by the Group Managing Director responsible for the division and highlights several perspectives on the importance of CSR at Zeppelin. The content is available in German with English subtitles.

In addition, a comprehensive training concept for all German companies was created and introduced in 2023. The training program includes standard training with workshops on ISO 9001, ISO 14001, ISO 45001, ISO 50001 and internal auditor training.

5.4 Sustainable supplier management

GRI 2-6, 2-23, 2-24, 2-25, 3-3, 308-1, 308-2, 408-1, 409-1, 414-1, 414-2

Overview of Procurement organization

For the Zeppelin Group, sustainable supplier management means assuming responsibility for complying with social and ecological due diligence throughout the supply chain. A central topic in procurement is the definition of Group-wide benchmarks for the selection, assessment, and monitoring of suppliers and supply chains. This ensures that suppliers meet quality, cost, reliability, sustainability, and human rights requirements.

The individual Group companies have their own procurement organizations that buy materials and services for the respective company and its sites, or set the framework conditions for decentralized procurement. The procurement organizations of the individual Zeppelin companies are networked in an international Group procurement team. This team identifies and coordinates common procurement topics with the aim of developing uniform procurement standards for all Group companies and ensuring common procurement sources and optimized conditions.

In addition to the central consideration of defined product groups, the topic of supplier management in particular, with the aspects of supplier selection, supplier evaluation, risk management, sustainability, and due diligence obligations in the supply chain, will be uniformly designed for the Zeppelin Group. The lead buyer concept¹⁶ that has been established since 2010 is being maintained. In this system, the lead buyer is responsible for the central processing of one or more procurement topics. They are supported by a co-buyer from another Zeppelin company. The Group Procurement Guideline defines the framework and regulates responsibilities.

¹⁶ The following companies have agreed to follow the Lead Buyer Concept: Zeppelin GmbH, Zeppelin Baumaschinen GmbH, Zeppelin Rental GmbH, Zeppelin Power Systems, Zeppelin Systems GmbH, Zeppelin Österreich GmbH and Zeppelin CZ s.r.o., including their subsidiaries, participate in the Lead Buyer Concept and benefit from the resulting procurement benefits and Group synergies as far as possible.

¹⁷ This includes the cost of materials included in the cost of sales.

Zeppelin has a Code of Conduct for Suppliers, which sets out guidelines, principles and requirements as the basis for profitable cooperation. The contracting parties agree to comply with the principles and requirements of the Code of Conduct, and to commit to contractually obliging their subcontractors to comply with the standards and regulations set out in the Code of Conduct.

Supply chain description

At EUR 2,610 million in 2023, the Zeppelin Group's purchasing volume¹⁷ increased slightly compared with the previous year (2022: EUR 2,584 million). The majority of the procurement volume is attributable to the procurement of merchandise for our business partner Caterpillar, with whom a close business relationship has existed since the 1950s. Trading in and servicing Caterpillar products makes up a significant proportion of the Zeppelin Group's business activities. The Construction Equipment Central Europe, Nordics and Eurasia SBUs focus on the distribution and service of Caterpillar construction machines and components. The Rental SBU leases Caterpillar construction equipment and attachments, among other things. The Power Systems SBU develops, sells, and services, among other things, drive, propulsion, traction, and energy systems based on Caterpillar engines.

The procurement volume outside of the trade with Caterpillar is primarily attributable to suppliers in the technical product field. The Rental SBU procures construction machines, conveyor technology, construction equipment, and heating and air conditioning technology for machine and equipment rental. In addition, the Rental SBU's procurement covers materials and services for construction site equipment, construction site and traffic guidance, modular room and sanitary systems, and construction logistics. Another area of focus is on materials and components for the production of mixing and silo systems at the Plant Engineering SBU, as well as components and plant services for the Power Systems SBU. In addition, a relevant share of the procurement volume is attributable to vehicles for the rental business and to the company's own field service.

Expenditure for the organization’s own needs, various services, such as energy supply, IT solutions or consulting services, are also included in procured services and supplies. With the exception of the trade relationship with Caterpillar, procurement by the German companies takes place predominantly in national or western European markets.

Supplier selection and assessment to monitor and safeguard our requirements

Suppliers who have a relevant influence within the supply chain are checked for suitability before the initial order is placed. This check is carried out, for example, on the basis of obtained supplier self-assessments, audits and credit checks and, if necessary, further research. In addition to questions on economic and technical production suitability, the collection of data as part of the supplier self-assessment comprises questions regarding certified systems for data protection, energy management, environmental management, occupational health and safety, and quality. In addition, a CSR questionnaire, which is primarily used for strategically relevant suppliers, is used to check the suitability of suppliers with regard to CSR standards.

Depending on the annual procurement volume and after delivery or performance, our suppliers are assessed to see how well they fulfilled various criteria. These criteria include variance rate, pricing, punctuality, complaints rate, environmental and social responsibility, and innovative capability. The supplier evaluation serves as a tool for the ongoing monitoring of the partnership and shows action areas for any necessary improvements. This is one of the most important tools for improving quality and therefore for optimizing the costs of materials and processes.

Progress in supplier management

The main objective of the procurement policy is to develop and maintain stable and partnership-based business relationships with suppliers so as to meet the requirements of internal and external stakeholders. This requires that the selected suppliers meet the requirements set by Zeppelin in terms of quality, adherence to deadlines, price, cooperation, sustainability, and integrity. The degree to which they meet these requirements is checked and expanded as part of regular supplier evaluations. The term sustainability covers ethical, social, economic, and ecological aspects that are rated with an equal weighting.

To determine the baseline and to be able to determine the necessary measures based on this, the companies regularly carry out the checks mentioned in the following section.

In addition to fulfilling qualitative requirements, Zeppelin expects its suppliers to comply fully with legal obligations and to recognize and comply with the basic values anchored in the Supplier Code of Conduct. This is set out in framework agreements or in project-specific agreements.

-  **Progress on objective 1**
 - Definition of uniform evaluation criteria
 - Regular (annual) assessment of the degree to which the criteria set have been met

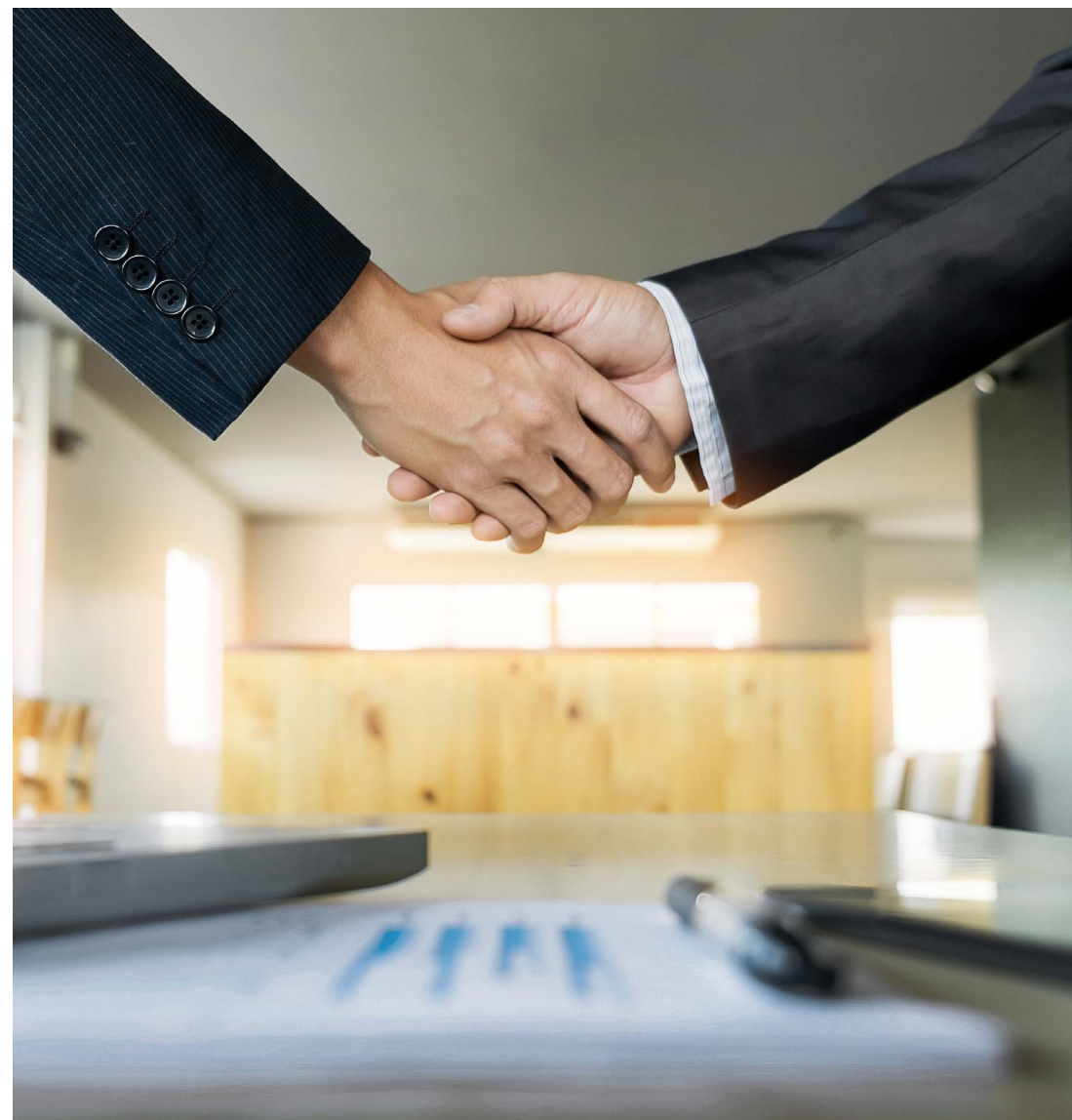
For Zeppelin, sustainability in the supply chain also means ensuring security of supply with materials and services, especially for Zeppelin customers. Regardless of the size of the purchasing volume, all suppliers are therefore checked for their relevance within the supply chain, and strategic suppliers are identified. These suppliers are checked in particular in terms of their economic stability.

-  **Progress on objective 2**
 - Identifying possible risks, in particular in relation to human rights abuses
 - Conducting a revenue-independent risk assessment

The relevance assessment, which was previously based on annual purchasing volumes, was replaced by a revenue-independent risk assessment. If Zeppelin becomes substantially aware of violations by a supplier in the areas of the environment, compliance or human rights, a separate review will be conducted to determine and evaluate the severity of the violation. In these cases, remedial measures aimed at immediately ending the violation are defined together with the supplier. If it is not possible to implement satisfactory remedial measures, the business relationship can ultimately be terminated. Violations of the Zeppelin Code of Conduct may also result in the termination of the cooperation. The risk assessment described above applies to all companies and has been documented in a Group guideline.

Measures in 2023

After intensive preparation, Zeppelin implemented the legal requirements from the Supply Chain Due Diligence Act (LkSG) on January 1, 2023. In addition to appointing a person responsible for monitoring risk management related to the LkSG, a complaints procedure (based on the Zeppelin Trust Line) has been set up for violations related to human rights and environmental rights. A risk analysis of the direct suppliers and of the company's own business area was carried out for the German companies. As part of the further development of internal processes in the area of supplier management, preventive measures were established in the event of human rights-related risks and remedial measures were defined in the event of legal violations at suppliers or in the company's own business area. In addition to training the company's own employees, which began in 2023, selected suppliers will be made aware of Zeppelin's expectations in the following year. The adoption of the declaration of principles for human and environmental rights by the Group Management Board marked the provisional conclusion of the measures in the current year.





PRODUCTS & SERVICES

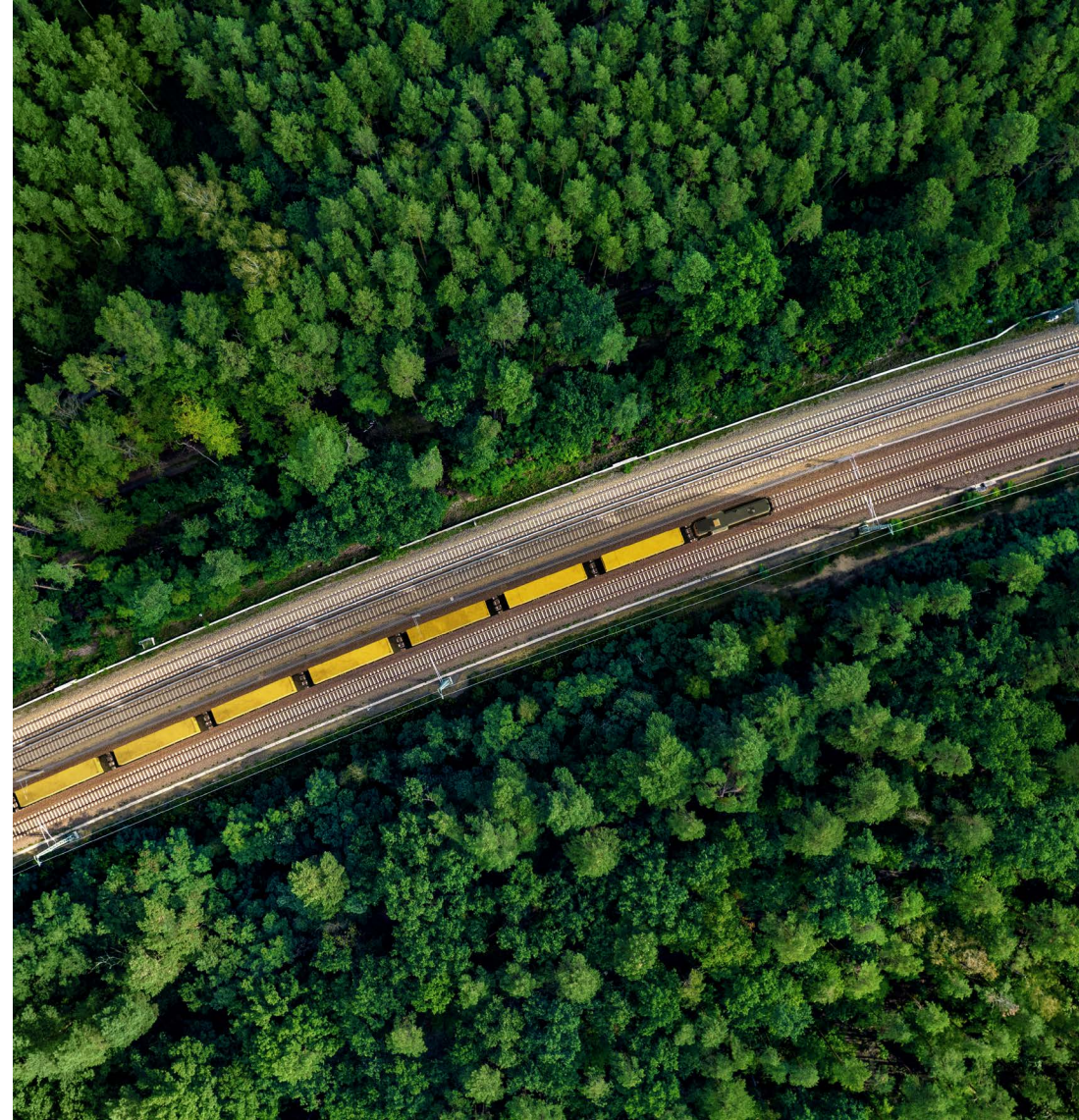
**Sustainable solutions
to increase customer satisfaction**

6 Products & services

6.1 Sustainable products & services

GRI 3-3, 301-3, 302-5

Zeppelin's mission is to enable its customers to achieve long-term and sustainable economic profit. In terms of its own products and services, the Zeppelin Group offers its customers a continuously expanding portfolio of sustainable products and services. Zeppelin thus supports its customers in achieving their own sustainability goals and in shaping their value creation processes. Product development focuses on sustainable cost effectiveness through increased efficiency, reduced fuel consumption, and lower maintenance costs. The range of products includes low-emission or zero-emission solutions with hybrid and electric drives. Extensive services such as regular maintenance, warranties, and the reconditioning of machines, as well as spare and add-on parts extend the service life and ensure resources have a longer useful life. The products offered by Zeppelin meet high safety standards and protect customers and employees.





Construction Equipment Central Europe, Nordics and Eurasia SBUs

The diverse portfolio includes electric construction machines such as the Cat 301.9 electric mini-excavator and the successful Cat Certified Rebuild repair program, which enables more sustainable use by saving raw materials and primary energy. The portfolio also includes powerful equipment for earthmoving, excavation of materials, demolition, recycling and road construction, as well as machines for gardening and landscaping, agriculture and industry. Special machines for surface and underground mining, as well as large and special equipment for mines, quarries and the oil and gas industry, along with various assistance systems, machine controls, and fleet management systems for in-house and third-party machines complete the product range.

Zeppelin also offers its customers the general overhaul of used construction equipment as a cost-effective and resource-conserving alternative to buying new equipment. One priority in particular is comprehensive customer support and the holistic design of the portfolio – from seismographic soil surveys to an all-inclusive contract. Zeppelin’s sales and service organizations for new and used Caterpillar construction machines, as well as used construction machines from other manufacturers and the corresponding attachments also offer the following sustainable services:

Environmentally friendly alternatives

Zeppelin offers its customers construction machines from its manufacturer partner Caterpillar that have been awarded the “Blue Angel” label and are especially quiet. These include, for example, wheel loader models. In addition, mini excavators with combined diesel and electric drives as well as electric material handlers with cable supply represent a cost-effective and at the same time environmentally friendly, low-emissions solution.

Construction machines with environmentally friendly engines

Since 2019, new construction machines from manufacturing partner Caterpillar have met the current emissions level V. Today, these products are exemplary in many areas in terms of fuel consumption – including electronic controls, various operating modes, idling shut-offs, electrically powered demand fans, and smart transmissions. The design of the overall powertrain focuses not only on efficiency, but also on reducing emissions.

Protecting the environment with bio-oil

The “HYDO Advanced” bio-oil from Caterpillar Inc. is biodegradable and has been awarded the “Blue Angel” label. In a construction machine, ingress of dirt or contact with external attachments can contaminate the hydraulic oil. It can be cleaned in a mobile ultra-fine filter system, saving you hundreds of liters of oil in a cost-effective and environmentally friendly way.

Assistance systems

There are assistance systems precisely adapted to every area of application and every construction machine, which make work even easier for experienced drivers and enable inexperienced drivers to achieve the desired work result more quickly. This reduces machine running time, uses less fuel, and cuts down wear and tear, thereby reducing the environmental impact.

Condition monitoring

Constant monitoring of the machine condition not only prevents failures, but also ensures permanently good maintenance and upkeep status of construction equipment. This has a positive effect on commitment and the environment.

Fleet management

Modern fleet management enables optimization of processes in construction, and also records fuel consumption and unproductive idling phases. This allows objective decisions to be made on the basis of numbers and the performance of the driver and machine to be improved systematically.

This is possible for Caterpillar construction machines as well as for machines from competitors.

Extending product life

- Preventive maintenance of construction machine components extends machine life and prevents unexpected failures. This means that new purchases can be postponed, money can be saved, and raw materials can be used sustainably
- The special “Certified Rebuild” programs from Zeppelin and Caterpillar include a complete overhaul of the powertrain or the entire machine. The machine or powertrain therefore meets the quality requirements of a new machine. This not only saves costs, but also raw materials and primary energy and extends the service life of the machine.
- Zeppelin also offers numerous replacement parts. Many components such as crankshafts, alternators, starters or transmissions of a construction machine can be given a new lease of life. Instead of a new part, if there is a defect a replacement with an overhauled old part saves costs and raw materials.



Power Systems SBU

Zeppelin is a leading provider of drive, propulsion, traction and energy systems and offers highly efficient solutions in industrial and marine applications, rail vehicles, the oil and gas industry and power generation. In addition to drive solutions based on Caterpillar diesel, gas and dual-fuel engines, the portfolio also includes generator sets for power generation, combined heat and power plants, ship propellers, complete drive systems, as well as complementary systems and worldwide service.

Digital products for all segments as well as system components and complete solutions for treating ballast water complete the product range. The following solutions place a particular emphasis on sustainability:

Advanced technologies – ballast water treatment systems

As an official partner of Optimarin, Zeppelin implements system solutions for ballast water treatment for customers in the maritime sector.

Fleets and machine management

With the Active Equipment Connect solution, customers can operate engines and systems efficiently and in a way that conserves resources. This extends the service life of the engines and lowers emissions and fuel consumption. Data-based action with a focus on HSE (Health, Safety, Environment) simplifies the management of machines and fleets.

Extending product life

Zeppelin offers competent execution of all maintenance and repair work that ensures long-term use of resources. Before delivery to the customer, the engines are run on the test bench and preventively examined for possible sources of fault. Preventive maintenance increases operational safety and reduces unexpected breakdowns and costs.

Product developments

Zeppelin is constantly working on projects to expand its product portfolio. They focus in particular on more sustainable drive and energy systems such as fuel cell technology, but also large-scale heat pumps, which play an important role in the decarbonization of heating networks. In addition to combined heat and power projects already underway, in which large-scale heat pumps are primarily used to increase overall system efficiency, other areas of application in the high-temperature range and waste heat utilization in industrial plants are currently being analyzed.

Alternative fuels

Caterpillar Cat and MaK engines can be operated with alternative fuels in addition to conventional diesel fuel. These include biodiesel, hydrogenated vegetable oils (HVO), and synthetically produced fuels such as GTL (gas-to-liquids). In the future, the company plans to add methanol (methanol blending) and a 25% hydrogen admixture in CHP plants with gas engines.



Rental SBU

With customized solutions in the areas of machine and equipment rental, temporary infrastructure and construction logistics, Zeppelin 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 offers a wide range of solutions to help customers achieve their sustainability goals. These can be divided into the following three categories:

Reduce energy consumption and greenhouse gas emissions

- State-of-the-art rental fleet: The launch of the ecoRent environmental brand in 2011 was trend-setting in the market, and the portfolio has been continuously expanded since then.
- Resource-saving work: The sustainable ecoRent program includes rental machines and equipment with combustion engines that meet the currently valid EU Stage V emissions standard, as well as hybrid

technology. Zeppelin Rental has also been using HVO (hydrotreated vegetable oil) as a sustainable alternative to diesel fuel since 2023. HVO reduces CO₂ emissions on the construction site by up to 90 percent, is guaranteed to be palm oil-free and thus protects the environment.

- Carbon neutrality: Electrically operated equipment from the ecoRent portfolio already enables carbon-neutral working today. The range includes, for example, work platforms, emissions-free LED floodlight mast systems, electrically powered mini excavators and much more.
- Mobile power generation: As part of a new energy concept, a combination of Stage V generator sets and innovative battery storage systems can increase energy efficiency while reducing fuel consumption.
- Traffic telematics solutions: The use of interchangeable traffic guidance with state-of-the-art LED technology for intelligent traffic control reduces traffic jams and cuts CO₂ emissions.
- Green electricity: Supply of green electricity from 100% renewable energy sources with proof of origin for construction sites, production facilities, and properties.

Promote the circular economy

- Sharing economy: Through its rental business model, Zeppelin contributes to extending the service life of products and supports the reuse and recycling of materials in accordance with the principles of the circular economy.
- Disposal logistics: In the spirit of the circular economy, Zeppelin Rental ensures a maximization of the recycling rate (approx. 90%) on construction sites through its waste management solutions, with separate waste sorting and invoicing according to the cost-by-originator principle.
- Modular room solutions for sustainable construction: Modular room solutions have a particularly environmentally friendly and resource-efficient life cycle. At the end of their useful life, the modules and components are returned to the material cycle and recycled.

- Optimization of logistics: Zeppelin aims to reduce fuel consumption as part of last-mile logistics by optimizing transport routes and using telematics systems.
- Construction logistics planning and management: Zeppelin's construction logistics planning and management ensures seamless processes, for example to optimize delivery traffic, avoid traffic jams, increase productivity and efficiency, and consequently plan the use of resources in the construction process in line with actual needs.
- Proven resource conservation: The "Rental+" app can be used to reduce the number of transport operations and thus save large quantities of diesel fuel.

Health and safety

- Regular maintenance and inspection of the rental fleet: Regular maintenance and inspections serve to ensure the safety and operability of equipment.
- Training and instruction: Customers receive comprehensive training and instruction on the safe handling of the rental equipment. In addition, there is a QR code on each device that links to the operating instructions and, in many cases, also to an explanatory video.
- Provision of safety equipment: If necessary, Zeppelin ensures that the appropriate safety equipment is made available together with the rental equipment.
- Noise-free and dust-free working: The use of electrical machines and devices protects the health of the operating personnel.



Plant Engineering SBU

Zeppelin specializes in constructing systems for the handling of high-quality bulk materials. From system planning to implementation, Plant Engineering supports its customers, 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 come from industries such as plastics, chemicals, rubber and tires, as well as food. In addition, new customer groups will be opened up in the area of tire and plastic recycling and battery mass production. With a large Association of Technical Centers for Bulk Materials, Zeppelin makes it possible for its customers to review and optimize plant design on an industrial scale. Zeppelin also develops and manufactures its own components for plants' key functions, and these are used in third-party systems too. Below is a selection of products and services from the Plant Engineering SBU with a particular focus on sustainability:

Zero-waste production

Conveying systems are optimally designed when the conveying task and method are ideally matched to each other. Optimized conveying saves energy, prevents emissions, and helps to reduce abrasion, dust formation, and grain breakage through gentle conveying. Further design measures, from feeding raw materials and emptying containers to their introduction into the process, prevent additional material losses during material handling and increase product quality.

- As standard, the plants are equipped with return conveyors or rework processes in order to return production-related waste directly to the process.
- Bread that cannot be sold due to visual imperfections need not be thrown away. These bread residues can be utilized sensibly – even with improved dough quality and taste.

Zeppelin provides a liquid dosing system for a wide range of process liquids and, in some cases, highly viscous and functional additives. Liquid dosing systems tailored to the processes enable high-precision dosing – even in a closed circuit. The precise and loss-free incorporation of functional fluids is also possible, for example in the area of tire production. This not only saves costs, but also protects the environment.

Recycling

Recycled plastic granulate has one critical disadvantage: it often smells unpleasant. Therefore, it can only be reused to a very limited extent in plastic production. Deodorization processes from Zeppelin Systems degas plastic recyclates so that they can be returned to the production process in larger quantities. By using more recycled materials, customers can easily achieve and even increase their recycling rates.

- With technologies from Zeppelin and the use of high-quality recycled materials, valuable raw materials such as industrial soot, rubber granulate, and rubber powder can be saved.

- For rubber and tire waste, Zeppelin offers various recycling processes for the higher-quality return of recycled materials into high-value (new) products and new tires.
- Recycling passenger car tires produces ‘fluff’, a light fraction that is created from the reinforcement fibers in the tire during the shredding process. These fibers are prepared using a special process and replace chemical additives in asphalt coverings. The fibers even provide better performance in terms of crack resistance and ductility compared with today’s common additives. A typical case of upgrading a recycled material to a functional additive with added value.

Systems for the safe production of battery compounds

Adapted to the customer’s needs and requirements, Zeppelin develops tailor-made solutions for handling raw materials to produce battery compounds. The raw materials required for this are not only expensive, but also harmful to health. The strictest requirements and extensive experience in hazardous substance handling (including in the areas of ATEX and containment) are therefore mandatory. Extensive process engineering expertise in the storage, conveying, dosing, and mixing of raw materials is also a basic prerequisite for an optimal production result. Maximum precision and traceability in the production process are quality criteria that must be met. Zeppelin Systems boasts an impressive track record in this area with its many years of experience. Throughout the entire project cycle – from engineering and assembly to commissioning and subsequent fine adjustment in the technical center with product trials – Zeppelin Systems provides solutions. In summary, this means:

- individual customer solutions for optimal processes, maximum product quality, and long life cycles
- energy-saving and environmentally-friendly processes
- a high level of safety throughout the entire production process
 - high-quality filter solutions and aspiration systems in all process stages and generally high-quality design for minimal emissions of dust, odors, and noise.
 - automation solutions to increase process efficiency, reduce downtime, material loss and production errors.



Group IT Services

The Strategic Management Center (SMC) Group IT Services (GRIT) supports all strategic business units in a cross-functional manner, bringing together expertise in the Zeppelin Group from the areas of IT, data, infrastructure, security and compliance, and digital product development. With GRIT, the Group is putting in place a consistent IT landscape based on an infrastructure which is standardized across all disciplines. Zeppelin Digit facilitates collaboration across all SBUs and departments on an interdisciplinary, transparent, and open basis.

6.2 Customer health & safety

GRI 3-3, 416-1, 416-2

Zeppelin attaches great importance to the health and safety of its customers and this concern plays a significant role in all strategic business units.

Plant Engineering SBU and Power Systems SBU

In the course of product development and the implementation of our customers' requirement specifications, we deal intensively with domestic and international regulatory requirements. This area is particularly relevant for the Plant Engineering and Power Systems strategic business units. Aspects from occupational health and safety are already taken into account in the innovation process and consideration is given to the risk assessments of the manufacturing process and of the substances used. In addition, risk analyses and assessments are created for the products. To ensure a uniform level of protection for accident prevention for machines, the plants are subjected to a risk assessment. A CE Officer is available to prepare the declaration of conformity. In the case of the Power Systems SBU, these are called CE Coordinators. Depending on the project, safety concepts and studies (e.g. explosion protection concept, "Hazard and Operability" studies) are drawn up and "Safety Integrity Level" classifications and calculations are performed. The plants and machines are then put into operation by trained personnel so that the functionality and safety for the customer are ensured. The procedures are recorded in internal processes, procedural instructions, and forms. As part of the handover, customers are trained on the use and possible safety-relevant aspects. Within Zeppelin Power Systems GmbH, high-quality technical training courses on our products are offered in the state-of-the-art training center in Achim. The products and systems supplied by the Plant Engineering SBU are subject to the Machinery Directive. For European customers, we issue a CE certificate for all machines and systems. The same quality standards apply to non-European customers at Zeppelin, but in these cases we do not issue a CE certificate.





and machine operators can be trained in the safe and efficient use of all equipment and safety systems. The portfolio includes practical online courses and training in the simulator in two different driver's cabs. More information can be found here.

In the case of rented equipment, specialist and customized instruction in the operation of the equipment is provided. Proper instruction is essential to the prevention of accidents, especially for new, private and non-industry customers. The procedure is set forth in the procedural instruction for the commercial processing of rental equipment.

In addition, product safety information for customers is provided and further information and detailed data sheets about our products and services are presented on the websites of the companies.

Construction Equipment (Central Europe, Nordics and Eurasia) SBUs and Rental SBU

The safety and assistance systems in Caterpillar construction machines include a variety of functions aimed at preventing accidents and ensuring the safety of drivers and other workers. This includes measures for safe handling when climbing on and off, as well as the use of safety belts that reduce the risk of injury if the machine tips over. Additional safety features, such as the Cat Seat Belt Reminder feature, ensure drivers are always wearing their seat belts. Access control using customized PIN codes and the identification of authorized drivers also contribute to safety. Improved visibility through LED work lights, rotating beacons and camera systems, including 360-degree cameras and the Cat Vision System, minimize potential hazards that can arise from reduced visibility, for example. Additional assistance systems such as Lift Assist, Autodig and Cat Hill Hold optimize safety when operating the machines in different terrains. Our service training courses focus on increasing customer safety. At the company's own training center in Kaufbeuren, the technical fundamentals of Caterpillar construction equipment can be learned



SOCIAL RESPONSIBILITY

How we shape the world around us

7 Social responsibility

In addition to its economic and legal responsibility, Zeppelin also has a moral and ethical responsibility for the impact of its business activities on society and the environment. This affects both Group employees and other stakeholder groups.

7.1 Human resources

GRI 2-7, 2-30, 3-3, 401-1, 401-2

Our HR work puts our employees at the forefront. After all, committed and satisfied employees are more capable, healthier and stay at Zeppelin in the long term. They develop innovative products and provide great service, which helps ensure our customer satisfaction – the “people” focus is therefore central to our business success.

The organizational structure within Human Resources is closely interlinked. The operational work of the companies is organized into independent HR departments. Depending on the size of the company, there is not only operational HR management, but also HR development. With the introduction of various software applications (e.g. ATOSS, Workday, and PeopleDoc) in recent years, HR processes throughout the HR value chain have been standardized and digitalized across the Group. Regular discussion panels ensure adherence to the processes and enable the sharing of best practices. Group HR Development is responsible for the creation and further development of the HR strategy as well as for overarching topics relating to leadership and management development. These measures are supplemented by company-specific HR development processes that are embedded in the overall strategic concept.

In the interests of a sustainable HR policy, it is important to regularly review the existing HR strategy with regard to internal and external challenges and to adapt it if necessary. This is why the HR strategy was revised as part of the Group-wide strategy call for 2023. At the core of the new HR strategy are the dimensions of Attract, Develop, and Retain, to which the diverse initiatives and programs in human resources can be categorized. Moreover, the must-win battles include defined focal issues which are central to securing in the long term the company’s success in light of current challenges: Employer branding, expansion of development and career opportunities, ensuring fair remuneration and benefit packages, and developing a KPI concept for measuring success

Zeppelin’s HR strategy



As of December 31, 2023, the Zeppelin Group had more than 10,000 employees. These were divided into six strategic business units. The breakdown of employees by business unit is shown by full time equivalent (FTE). From 2022 to 2023, the number of Zeppelin employees in the Construction Equipment Eurasia SBU decreased significantly due to the reduction of jobs in Russia.

Number of employees (FTE) by strategic business unit (SBU)

Last updated: 12/31/2023	2021	2022	2023
Construction Equipment Central Europe SBU	2,811	2,852	2,947
Construction Equipment Nordics SBU	691	713	758
Construction Equipment Eurasia SBU	2,032	1,353	744
Rental SBU	1,802	1,997	2,322
Power Systems SBU	1,049	956	1,009
Plant Engineering SBU	1,586	1,791	1,824
Zeppelin GmbH (holding company)	343	379	391
Zeppelin Group as a whole¹⁸	10,312	10,041	9,995

Employees (headcount) by type of employment

Last updated: 12/31/2023	Unit	2021	2022	2023
Permanent employees	Number	10,449	10,209	9,937
Temporary employees	Number	106	82	252
Permanent employees	%	99	99	98
Vollzeitquote ¹⁹	%	97.7	97.6	98.1

The Rental SBU recorded a 16% increase in the number of employees, and there was also a slight rise in the number of employees in the Construction Equipment Central Europe, Construction Equipment Nordics, Power Systems SBUs and the holding company, Zeppelin GmbH. In 2023, the Group hired 1,602 new employees worldwide. Growth is steady and healthy: Every new hire is well considered and the deployment of an employee is something that is planned for the long term. Therefore, new employees usually receive a permanent employment contract: In 2023, the proportion of permanent employees was 98%. The use of contracts for work, temporary workers and freelancers plays a subordinate role in terms of sustainable personnel planning.²⁰

New hires in the reporting year by age group, gender, and strategic business unit (SBU)

New Hire Employment	Unit	2023
Rate of new hires to total number of employees	%	16
Proportion of women	%	19
Proportion of men	%	81
Proportion of diverse	%	N/A
Proportion under 25	%	18
Proportion 26 – 30	%	16
Proportion 31 – 35	%	15
Proportion 36 – 40	%	13
Proportion 41 – 45	%	11
Proportion 46 – 50	%	9
Proportion 51 – 55	%	8
Proportion 56 – 60	%	6
Proportion over 60	%	3
Proportion in Construction Equipment Central Europe SBU	%	17
Proportion in Construction Equipment Nordics SBU	%	11
Proportion in Construction Equipment Eurasia SBU	%	3
Proportion in Rental SBU	%	37
Proportion in Power Systems SBU	%	11
Proportion in Plant Engineering SBU	%	15
Proportion in Zeppelin GmbH (holding company)	%	3
Zeppelin Group as a whole²¹	Headcount	1,602

¹⁸ Including employees of Z Lab GmbH, klickrent GmbH, and klickparts GmbH as of December 31, 2023

¹⁹ The full-time ratio is calculated based on the ratio of employees (FTE) to employees (headcount). The part-time ratio and the full-time ratio together add up to 100%. No distinction is made between full-time and part-time employees, i.e. all company benefits are also offered to part-time employees. This ensures compliance with the General Equal Treatment Act (AGG).

²⁰ No significant proportion of the company's activities are carried out by employees who are employed outside Zeppelin.

²¹ Including employees of Z Lab GmbH, klickrent GmbH, and klickparts GmbH

The average age of the employees in 2023 was 42.1 years. Further information on the breakdown of the age structure can be found in the appendix under “Overview of non-financial KPIs”. Demographic change in Germany, and the competitive situation with other companies 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. To ensure Zeppelin is even more effective at positioning itself as an attractive employer, a Group-wide employer branding project was launched in 2023. After a comprehensive status quo analysis, specific recommendations were developed, including strengthening cross-company collaboration, optimizing recruitment processes and sharpening the employer message. The revision of the employer promise, including its key messages, is scheduled for completion in 2024.

For Zeppelin, it goes without saying that employees should have a stake in the financial performance as they are the ones who make the company successful. The models vary from Group company to Group company and depend on the respective position of the employee. There are models with contractually defined monthly remuneration plus annual profit sharing or models with a fixed salary and variable remuneration, which also contain a performance-related component.

Change in personnel costs in million euros

2021		692.0
2022		745.2
2023		787.0

The very good economic performance of recent years is reflected in personnel costs. These increased due to the rise in the number of employees in high-price regions and also to the profit sharing paid out.

Given the increasing importance of pensions for retirement, the Zeppelin Group offers employees in Germany the opportunity to save for a supplementary pension. There are different pension plan models in the individual companies, such as direct insurance, pension fund or plans stipulated in collective bargaining agreements. The company finances the company pension scheme with tax-free contributions. But employees also have the option of concluding a self-financed company pension scheme in accordance with the statutory provisions (deferred compensation). The respective framework conditions for provision by Zeppelin are regulated in the company-specific arrangements of the subsidiaries. The reduction in long-term employee benefits is largely due to the actuarial effects of the higher interest rates for discounting liabilities.

Employee benefits (calculation in accordance with IFRS²²)

Total per year (kEUR)	2021	2022	2023
Total employee benefits	278,203	226,424	234,787

Collective bargaining agreements

The majority of Zeppelin Group companies in Germany are not subject to collective bargaining agreements. However, Zeppelin follows many of the regulations of the collective bargaining agreements for wholesale and foreign trade in the companies in Germany that are not bound by collective wage agreements and generally adopts the agreed wage agreements (see second table below). The majority of branches of Zeppelin Systems GmbH in Germany are bound by collective bargaining agreements for the metalworking industry, just like some employees of Zeppelin Rental GmbH are part of the construction collective agreement. In Austria, employees of Zeppelin Österreich GmbH are subject to the collective agreements of the metalworking industry and Zeppelin Rental Österreich GmbH & Co. KG is subject to the collective agreements of the metal industry, trade and commerce as well as those of retail. At Zeppelin Systems, the majority of overseas companies are not bound by collective bargaining agreements; two countries are in a structure similar to that of collective bargaining agreements. The individual collective agreements and agreements based on them are presented below.

²² Adjustment of the reported value compared with the previous year from long-term benefits to total benefits in accordance with IFRS (see also the Annual Report 2023, page 142)

Collective bargaining agreements in Germany

Number in headcount as of December 31 of the respective reporting year	2021	2022	2023
Construction Collective Agreement - Zeppelin Rental GmbH	57	51	41
Metal Collective Agreement Baden-Württemberg - Zeppelin Systems GmbH	514	530	569
Metal Collective Agreement Hessen - Zeppelin Systems GmbH	319	336	332
Metal Collective Agreement Saxony - Zeppelin Systems GmbH	16	18	19

Employees based on the wholesale and foreign trade collective agreement

Number in headcount	2023
Zeppelin Baumaschinen GmbH	1,835
Zeppelin GmbH	139
Zeppelin Power Systems GmbH	580
Zeppelin Rental GmbH	1,442

Management culture in the company

As a company steeped in tradition, Zeppelin feels connected to its history and is committed to a management culture based on our core values of integrity and excellence. Societal and economic trends such as demographic change, digitalization and new work, a change in values and lifestyles, as well as the shortage of skilled workers are constantly changing the world of work. Zeppelin’s leadership principles developed in 2021 take into account current social and economic trends and challenges in the world of work, preparing Zeppelin for a successful future. They embody our shared understanding of leadership, provide guidance, and clearly convey what we expect of managers at Zeppelin. The management principles provide employees with guidance on what they can expect and demand from their managers. Management at Zeppelin should be characterized by communication, reflection, and trust and should put people at the center of what they do.

Our leadership principles at Zeppelin



The first Zeppelin “Leadership Gym” took place in 2023 to further promote the anchoring of the five leadership principles in the Zeppelin Group. The aim of the pilot event, attended by 60 managers from different SBUs, was to make tangible the leadership principles by means of practical exercises. Based on the excellent feedback which followed, the format will be further rolled out in 2024.

In addition, workshops were held for managers on the topic of “healthy management”, focusing on the health of employees in everyday management activities. Following a pilot in the Finance department, 270° feedback for managers – which is based on the leadership principles and incorporates the perspectives of the individual’s own manager, employees and peers – will be integrated as part of the development landscape and further rolled out in 2024.

7.2 Employee satisfaction

GRI 3-3, 401-3

All projects and initiatives of the HR department aim to make the Zeppelin Group a modern employer with the best employees and efficient HR processes. The current objectives focus in particular on maintaining the voluntary resignation rate at a low level and ensuring a consistently high level of seniority. In order to achieve these goals or to be able to successfully implement projects and initiatives, the HR department is organized in local HR departments at each company, which in turn are bundled via the reporting line in the management holding company.

Progress in employee satisfaction

→ Progress on objective 1

→ Maintain the average length of service at a level of at least 9.3 years

One objective in HR is to maintain the average length of service of at least 9.3 years. Overall, employees are very loyal to the company, which explains the average length of service of 9.6 years (2023).



By ensuring the loyalty of its employees at an early stage and promoting talented and junior managers, Zeppelin wants to maintain and expand its goal of a long length of service in the company.

Average length of service in years by strategic business unit (SBU)

SBU	2021	2022	2023
Construction Equipment Central Europe SBU	12.1	12.1	12.3
Construction Equipment Nordics SBU	7.2	7.9	6.5
Construction Equipment Eurasia SBU	6.3	7.1	7.5
Rental SBU	7.6	7.3	7.7
Power Systems SBU	10.3	10.7	10.1
Plant Engineering SBU	12.1	11.2	10.3
Zeppelin GmbH (holding company)	6.3	6.6	6.3
Zeppelin Group as a whole²³	9.4	9.7	9.6

→ Progress on objective 2

→ Maintain the voluntary resignation rate at a maximum of 7.5%²⁴ by 2025

Societal and economic trends and challenges continue to influence the world of work. These include demographic change, globalization and digitalization, changing values and lifestyles, and the shortage of skilled workers. These challenges require additional measures to attract and retain employees. One indicator of employee satisfaction is the voluntary resignation rate. In order to adopt a realistic target with regard to the trends and challenges described, the progress of Objective 2 was revised and the objective of keeping the voluntary resignation rate at a maximum of 7.5% by 2025 was adjusted. The voluntary resignation rate in 2023 was 6.6%, which was lower than in the previous year (7.4%).

²³ Including employees of Z Lab GmbH, klickrent GmbH, and klickparts GmbH

²⁴ Target adjustment compared with previous year: Maximum voluntary resignation rate increased from 5.0% to 7.5%

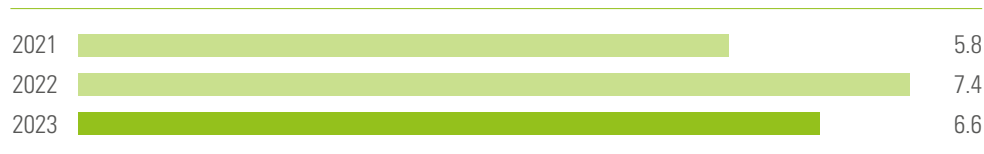
This shows a heterogeneous picture with great variability across countries, business units, and professional groups. Overall, developments in the Zeppelin Group reflect the long-standing trend towards an employee market with a shortage of skilled workers. In recent years, Zeppelin has introduced a variety of measures to increase employer attractiveness and employee satisfaction in order to achieve the overarching goal. This includes, in particular, the strategic embedding of employer branding in order to continue to position Zeppelin as an attractive employer in the competition for talent and to continue to strengthen the employer brand in the future.

Z VOICE

The global Z VOICE employee opinion survey took place in 2023 to collect feedback from employees on topics that have an impact on employee loyalty, satisfaction and motivation.

Of the 9,000 or so eligible people who took part, 66% completed the survey in digital form. Meaningful work, good peer relationships, and a high sense of belonging emerged as strengths of the Zeppelin Group. The design of the working environment, processes relating to transformations and cross-group cooperation were shown to be areas requiring some action. After the survey, a comprehensive follow-up process took place with central and decentralized measures, including training and exchange formats for various target groups. The action areas were worked on at team and company level, and the results were also taken into account in strategic processes such as the strategy call. In 2024, the focus will be on the conceptual design of a survey landscape at Zeppelin and on piloting further survey formats such as 'pulse checks.'

Change in voluntary resignation rate as a percentage



Measures in 2023

Onboarding process

Im Rahmen des virtuellen Onboarding-Programms Z WELCOME werden zwei- bis dreimal jährlich neue New Zeppelin employees are welcomed as part of the Z WELCOME virtual onboarding program two or three times a year. The German and English language events ensure that the relevant knowledge about the company and the individual strategic business units is conveyed uniformly. A quiz consolidates employees' learning. In showrooms, various company initiatives are presented in an interactive format and networking made possible. A newly implemented onboarding structure on the Intranet gives new employees quick and straightforward access to all important information for their day-to-day work – from IT and communication channels to Zeppelin's structure, values and programs. This allows them to gain a comprehensive overview and find their way around the company more quickly.

Training, dual study program and trainee program

The Zeppelin Group is currently providing training in 19 different occupations in Germany and Austria. School leavers can get off to an excellent start in their career by training in a commercial, industrial, technical, or IT profession. Every year, multi-day Welcome Days are held for all new apprentices and dual-study program students. The participants receive all the important information about the Group. The trainees present their prepared content in groups and put their most pressing questions to company management at the end of the event as part of the "Hot Seat with the Management Board" session.

Zeppelin works together with a range of universities to facilitate a dual study program for its young talent in the areas of mechanical engineering, industrial engineering, business administration, accounting, electrical and mechanical engineering. In 2023, 20 dual students learned and worked in various business units of the Zeppelin Group. At an annual networking meeting, all students also have the opportunity to exchange ideas and network across the Group.

To continue to find qualified trainees, Zeppelin undertakes special HR marketing activities, such as participating in trade fairs and school career open days such as Think Big! BAUMA, Vocatium and Nordjob Bau. In addition, Zeppelin expanded its close contacts with schools and had a presence on apprenticeship exchanges.

Number of trainees and dual students (FTE)

Trainees and dual students of the Group	2021	2022	2023
Trainees and apprentices	361	376	392
Dual-study program students	22	24	20

Z Starter ensures the best chances of being accepted. Z Starter is a pool of up-and-coming staff that takes in all trainees of the Group (German companies) who cannot be given a full time position at their training location, but who would like to remain and continue their career path at Zeppelin. Z Starter is used throughout Germany, and the junior employees receive offers from all German companies.

Zeppelin also offers very good prospects for the target group of young academic career entrants. The Z NEXT trainee program was launched in fall 2019. In 2023, ten trainees in Germany completed the extensive program to start their professional lives. Eleven new trainees were hired. They go through a variety of postings within an 18-month period. This also includes time abroad at an international Group company. In order to prepare the trainees as well as possible for the start of their professional life, they complete various training courses during the program and are also accompanied by internal mentors. Networking meetings are also held regularly. In addition to training, dual study programs, and the trainee program, Zeppelin also offers the opportunity for several months of practical semesters, Bachelor's and Master's positions, and positions for student trainees.

Training and qualification

Employees at Zeppelin not only have challenging areas of responsibility and scope for action, but also a Group that shows them a sense of solidarity and secure prospects. In regular conversations, employees receive feedback from their managers on their performance and they discuss professional prospects for development. Various processes to identify potential also assess whether a specialist or management career is available to the employee. This ensures that talented individuals within the Group are identified and that each employee receives sound feedback on their personal development. Specific further development measures are also systematically agreed at these Development Centers. The Zeppelin Development Landscape, which contains four different development programs for specialists and managers, has established the topics of Diversity & Inclusion and Corporate Social Responsibility. In addition, our leadership principles were well implemented in the programs. The global networking of all Zeppelin employees plays an important role in ensuring that we can also provide insights into the business units abroad. For this reason, the respective Zeppelin sites in Germany and abroad are also visited by participants for the in-person modules. In addition to general content on professional development, the management development programs convey Zeppelin's unique attributes in order to strengthen the Group in the long term through qualified managers.

Mobile working

Maximum flexibility should be maintained, taking into account the activity and operational requirements. This enables the needs-based use of remote working in connection with on-site work, i.e. in the office or at the customer's premises. As a result, every employee is able to work remotely within the framework of a team agreement and the customer requirements that need to be met.

Work-life balance




Striking a balance between work and private life is a top priority in the Zeppelin Group. The company offers individual solutions that contribute to a better work-life balance and is guided by the following guiding principle: “We want to enable our employees to have a good work/life balance, and in so doing rely on partnership-based give and take.” The Zeppelin Group has deliberately opted for a broad concept of what family can mean, with the aim of catering for all employees, regardless of their private life situation, and taking account of people’s changing requirements during the various phases of their life. Zeppelin has been certified by “audit berufundfamilie” since 2018, with a successful re-audit in 2023. In the context of this certificate, there are various measures, such as the Group agreement on remote working, the Z PARENTS program for parents, the Z FIT health initiative, and the collaboration with the famPLUS family service. The Z PARENTS program is specifically designed to support parents 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. The number of employees who took parental leave is constant. Many of them have now joined our Z PARENTS initiative. Almost 120 employees have joined since it was launched.



Number of employees in the Group who have taken parental leave (headcount)

2021		110
2022		90
2023		86



7.3 Diversity

GRI 3-3, 405-1, 405-2, 406-1

The ability to innovate and the sustainable safeguarding of the company’s success largely depend on how the Zeppelin Group deals with social changes, such as demographic change, changes in values, or changed life plans. This is crucial to enable employees to reach their maximum performance potential. This is where the Z COLOURFUL initiative, founded in 2020, comes in, which deals with the integration of diversity and equal opportunities. Diverse teams help to reflect better, act more creatively and make smarter decisions. An important milestone in this regard was the signing of the Diversity Charter by the Group Management Board in October 2020 as part of the virtual WE ARE COLOURFUL campaign week.

Progress in diversity



Progress on objective 1

→ Increase the proportion of women to at least 20% by 2025



At Zeppelin, equal opportunities for all genders are self-evident, and also a key driver of the success. The goal, which is the focus here, is to utilize the potential of every woman as well as to support women in the development of their careers in the long term. Zeppelin aims to increase the proportion of women Group-wide to at least 20% by 2025. This topic is being promoted by the Z COLOURFUL initiative, which deals with the integration of diversity and equal opportunities, and therefore not only strives for adaptation to a changed world of work, but also highlights diversity as a critical success factor. One key aspect of this program is the recruitment of female talent, both in the area of junior staff (e.g. trainees) and in the area of mid-career professionals (e.g. experts, managers). In addition, the focus is on targeted promotion and further development within the framework of our talent and development programs. Furthermore, the Z NOW initiative, Zeppelin’s women’s network, contributes to the promotion and visibility of female employees. The annual participation in the “her CAREER” fair in Munich as well as regular offers on campaign days such as “Girls Day” are intended to draw the attention of female (up-and-coming) talents to Zeppelin.

Proportion of women²⁵ as percentage per strategic business unit (SBU)

SBU	Proportion of women
Construction Equipment Central Europe SBU	15.1%
Construction Equipment Nordics SBU	14.9%
Construction Equipment Eurasia SBU	18.5%
Rental SBU	19.0%
Power Systems SBU	16.1%
Plant Engineering SBU	18.4%
Zeppelin GmbH (holding company)	45.2%
Zeppelin Group as a whole²⁶	18.1%

²⁵ Proportion of women by headcount (excluding management board, excluding trainees)

²⁶ Including employees of Z Lab GmbH, Klickrent GmbH, and Klickparts GmbH

Raising the rainbow flag represents the many different initiatives and programs around the theme of diversity



Employees in management positions by gender as percentage

Employees in management functions	2021	2022	2023
Female	17%	18%	15%
Male	83%	82%	85%
Diverse	N/A	N/A	N/A
Proportion of women on the Supervisory Board (Group)	33%	33%	33%
Proportion of women on the Management Board (Group)	25%	25%	25%
Proportion of women at 1st management level	21%	20%	20%
Proportion of women at 2nd management level	18%	20%	19%
Proportion of women at 3rd management level	17%	15%	15%

Measures in 2023

Through the Z COLORFUL initiative, Zeppelin has made a Group-wide commitment to diversity, inclusion and equal opportunities. In 2023, there were again many campaigns on these topics. As part of Diversity Day, employees worldwide were able to learn and exchange information on the topics of diversity and inclusion in digital lectures, discussions and through personal testimonials. An e-learning course on dealing with unconscious bias was also launched, which is available to all Zeppelin employees. Our diversity ambassadors are still active. In addition to the works councils, the ambassadors help to anchor the topic even more deeply in the organization and to address the needs of the individual SBUs in a targeted manner. 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. Zeppelin is also a member of Top Women in Baden-Württemberg. These memberships promote Zeppelin's visibility among professionals and experts and also increase its attractiveness as an employer.

Z NOW – Network of Women

Z NOW, established in 2016, is a strategic initiative which is primarily aimed at women but also welcomes men, and is operated by the Zeppelin Group. Zeppelin believes that equal opportunities for all genders should be a matter of course. The aim is to help women reach their potential and continue to develop their careers. The opportunity to expand their individual network, inspire each other, and share personal experiences are important building blocks. At each major site, network managers are recruited to act as points of contact at the local level. Another step is the planning, organization and implementation of Z NOW events, activities, and initiatives. Highlights in 2023 were the presence at the “her CAREER”

fair to draw the attention of female talents to Zeppelin, as well as internal presentations on the role of women in the development of the Zeppelin Group.



PROUD – the new LGBTQI+ network at Zeppelin

Diversity in terms of sexual identity, gender expression, orientation, and biological gender is an important topic for Zeppelin. The newly established PROUD network is dedicated to strengthening visibility and supporting diversity. It focuses on dialog, mutual support, and representation of the interests and needs of the LGBTQI+ community at Zeppelin. Currently, the network consists of around 15 people from different parts of the Group.



7.4 Occupational health and safety

GRI 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-9, 403-10

The Zeppelin Group's declared goal is to completely avoid work-related accidents and occupational illnesses (Vision Zero). The following basic principles apply, and are anchored in the Group Policy on Occupational Health and Safety:

- The Management Board and managers have the primary responsibility and act as role models for safe and healthy working at Zeppelin. They take measures to maintain and continuously improve the health and performance of all employees in the long term. For this purpose, all the necessary means and resources (time, money, materials, and training) are made available to establish the occupational health and safety organization and the resulting measures.
- All employees are obliged to conduct themselves in such a way that they help prevent accidents, illnesses and hazards at work, both for themselves and for others. In doing so, they actively and consciously help to shape their daily actions. This means that the applicable occupational health and safety regulations are observed at all times, that the prescribed personal protective equipment (PPE) is always worn and that machines, devices and work equipment are only used for their intended purposes.

- All employees are encouraged to report or remedy faults and defects and to submit identified potential for improvement for a safe and healthy workplace. The aim is to achieve a continuous improvement in working conditions and a steady reduction in work accidents and occupational illnesses.

With the help of the occupational health and safety management system in accordance with ISO 45001, Zeppelin not only manages the alignment and achievement of its targets, but also monitors and documents the progress made. The scope of the certified occupational health and safety management system in accordance with ISO 45001 includes the companies Zeppelin GmbH, Zeppelin Rental GmbH, Zeppelin Baumaschinen GmbH, Zeppelin Power Systems GmbH, and Zeppelin Systems GmbH and their Group companies in Germany. ISO 45001 certification is only partially available abroad. To meet Zeppelin's high standards abroad, the internal regulations are based on the existing occupational health and safety management system. The procedures and specifications for conduct in the event of accidents at work and their notification and reporting are regulated in procedural instructions. Development is recorded and monitored at every site of the German companies with more than 20 employees in quarterly meetings of the Occupational Health and Safety Committee. This is done with the participation of safety specialists and company physicians. A risk assessment is created for each activity in order to identify hazards in advance. Furthermore, inspections are carried out in all areas in order to identify risks and initiate measures. This process is documented in a procedural instruction. Regularly trained internal auditors reduce the risk of hazards through internal audits and site inspections. Site audits and certifications are carried out by third-party service providers. Due to the specifications of the supplier Caterpillar Inc. sources of hazards are presented using the contamination control process and stored alongside relevant measures.

To ensure the necessary knowledge and skills relating to health and safety at work, all employees take part in annual instruction. Responsibility for this lies with the respective managers. Good health and safety training can help prevent workplace accidents, protect employee health and increase productivity by minimizing potential risks. For this reason, Zeppelin offers two different occupational health and safety training courses across Germany, which also take job-specific topics into account. The safety of external companies and external personnel is just as important to Zeppelin as the safety of our own employees. For this reason, they are given instruction before they start work. Due to legal requirements in Germany, it

is necessary to carry out a mandatory inspection for certain workplaces and the use of certain equipment and machines. Zeppelin complies with these requirements.

In addition to this mandatory examination, Zeppelin also offers other voluntary occupational health services. These are specified individually at company level. Within Zeppelin GmbH, for example, sight tests and flu vaccinations are offered and have a high uptake among employees. Campaigns are also planned for the coming years.

Progress in occupational health and safety



Progress on objective 1

→ Reduce work-related injuries by 10% per year by 2025

It is Zeppelin's aim to provide all employees with a safe and healthy workplace, which is why the company has set itself the goal of reducing the work-related accident rate by 10% annually by 2025.

The work-related accident rate, which includes the number of work accidents per 1,000 employees at Zeppelin, describes the frequency and severity of work accidents in combination with the number of days lost due to accidents. The definition of reportable work-related accidents at Zeppelin is as follows: "A reportable work-related accident is an accident that occurs due to or as a result of a person's activity in the workplace, while working or while traveling on business, which requires medical treatment and leads to a period of absence lasting more than three calendar days after the day of the accident. Deaths are also accounted for and reported separately."

Number of work-related accidents (> 3 days) per strategic business unit (SBU)

SBU/key performance indicator	Unit	2021	2022	2023
Construction Equipment Central Europe SBU	Number	126	114	86
Construction Equipment Nordics SBU	Number	14	2	8
Construction Equipment Eurasia SBU	Number	7	7	0
Rental SBU	Number	59	64	79
Power Systems SBU	Number	21	22	11
Plant Engineering SBU	Number	16	22	22
Zeppelin GmbH (holding company)	Number	0	0	1
Zeppelin Group as a whole	Number	243	231	207
Work-related injuries per 1,000 employees²⁷	Number	23.6	23.0	20.7
Fatal accidents at work	Number	0	0	0
Lost Time Injury Frequency Rate ²⁸	Rate	12.8	12.5	11.3

In the 2023 reporting year, the Group-wide work-related accident rate was reduced by 10.0% and the target was achieved. Effective measures and committed safety awareness led to an extraordinary reduction of around 25%, especially in the Construction Equipment Central Europe SBU. Unfortunately, the Rental SBU recorded an increase in the rate of work-related accidents in the area of construction site traffic safety. This trend underlines the need to increase the focus on preventive measures and training to improve the safety of employees in this area.

Furthermore, statistics show that injuries to hands, ankles and feet are the most common work-related accidents. This underlines the importance of targeted safety precautions and training to minimize this type of injury and make working conditions safe overall.

²⁷ The 1,000-person ratio (work-related accident rate) is a general indicator of accident statistics in which the total number of reportable work-related accidents is determined for a defined period of time and converted to the number per 1,000 full-time employees (FTE). The period of consideration is a full calendar year. The performance indicators in 2021 and 2022 have changed slightly due to a changed data basis.

²⁸ LTIFR (Lost Time Injury Frequency Rate) was calculated with the occupational injuries > 3 calendar days and with the assumption of 230 working days and 8 working hours. Normalization factor: 1,000,000

 **Progress on objective 2**

→ Reduce accident-related lost time (days) by 10% per year by 2025

Number of days lost due to accidents per strategic business unit (SBU)

SBU/key performance indicator	Unit	2021	2022	2023
Construction Equipment Central Europe SBU	Number	3,554	3,042	2,439
Construction Equipment Nordics SBU	Number	145	62	377
Construction Equipment Eurasia SBU	Number	505	480	0
Rental SBU	Number	1,174	1,208	2,100
Power Systems SBU	Number	285	358	253
Plant Engineering SBU	Number	549	311	538
Zeppelin GmbH (holding company)	Number	0	0	69
Zeppelin Group as a whole	Number	6,212	5,461	5,776
Lost days per 1,000 employees²⁹	Number	602.4	543.9	577.9

The target of a 10% annual reduction in accident-related lost time (days)³⁰ was not achieved in 2023 (+5.8% compared with 2022). The number of days lost per 1,000 employees also increased compared with the previous year.

 **Progress on objective 3**

→ Increase the health rate to at least 95% by 2025³¹

The Z FIT health initiative is an essential component of the occupational health promotion of the Zeppelin Group and all German companies. This includes various measures to safeguard and improve the health and well-being of employees, such as presentations, check-ups, workshops or active sessions. The Zeppelin Group offers its employees in the German companies additional support in balancing work and private life with the famPLUS portfolio of services in the areas of childcare, care counseling, and psychosocial counseling.

Health rate as percentage per strategic business unit (SBU)

SBU	2021	2022	2023
Construction Equipment Central Europe SBU	95.6	95.4	95.5
Construction Equipment Nordics SBU	96.5	95.6	95.0
Construction Equipment Eurasia SBU	97.6	97.5	98.7
Rental SBU	96.4	93.9	94.3
Power Systems SBU	96.6	94.8	95.8
Plant Engineering SBU	96.7	95.7	96.5
Zeppelin GmbH (holding company)	97.7	97.1	96.6
Zeppelin Group as a whole ³²	96.5	95.5	95.8

The health rate has been continuously between 95.5 and 96.5% over recent years. In order to map more realistic targets in the short term with regard to external and internal circumstances, the target for the health rate was reduced from 97 to 95%. In the reporting year, the health rate met the target of 95.8% and improved slightly compared with the previous year.

Measures in 2023

Occupational health & safety

After the successful implementation of the accident cockpit, the priority now is the precise analysis of accidents and the consistent implementation of measures to improve safety. Through a thorough analysis of the data and targeted action planning, we aim to continuously improve working conditions and minimize risks. Our priority is to ensure that the measures taken are effective and make a sustainable contribution to workplace safety. The accident cockpit will be rolled out worldwide in 2024 and 2025.

²⁹ The 1,000-person ratio (work-related accident rate) is a general indicator of accident statistics in which the total number of reportable work-related accidents is determined for a defined period of time and converted to the number per 1,000 full-time employees (FTE). The period of consideration is a full calendar year.
³⁰ The reduction is calculated in comparison with the previous year. The performance indicators in 2021 and 2022 have changed slightly due to a changed data basis.

Accident cockpit



A new e-learning module on occupational health and safety was also introduced and rolled out throughout Germany in the reporting year. It is interactive and offers content tailored to office workers as well as workers in areas such as technical service, workshop, and production. The topics covered include fire safety, emergency response, safe routes to work, and first aid.



Health and safety

As part of the Z FIT health initiative, participation in a total of eleven company runs, a step challenge with over 46 million steps counted, nine guided “moving breaks” and four health days with more than 600 active participants were organized throughout Germany in 2023.

³¹ Target adjustment compared with previous year: Target health rate reduced from 97% to 95%
³² Including Z Lab GmbH, klickrent GmbH and Klickparts GmbH; as of: 12/31/2023

7.5 Donations & sponsorship

GRI 3-3

Corporate Social Responsibility

For Zeppelin as a foundation-owned company, business and corporate social responsibility are inseparable. The Group transfers part of its profits to the Zeppelin Foundation, which uses the money exclusively for charitable and benevolent purposes. In addition, the Group is committed to charitable causes in the areas of education, research, science, health, sport, social affairs, integration, art and culture. A Group-wide policy defines binding instructions for granting donations and sponsorship funds. Individuals and parties do not form part of the target group.

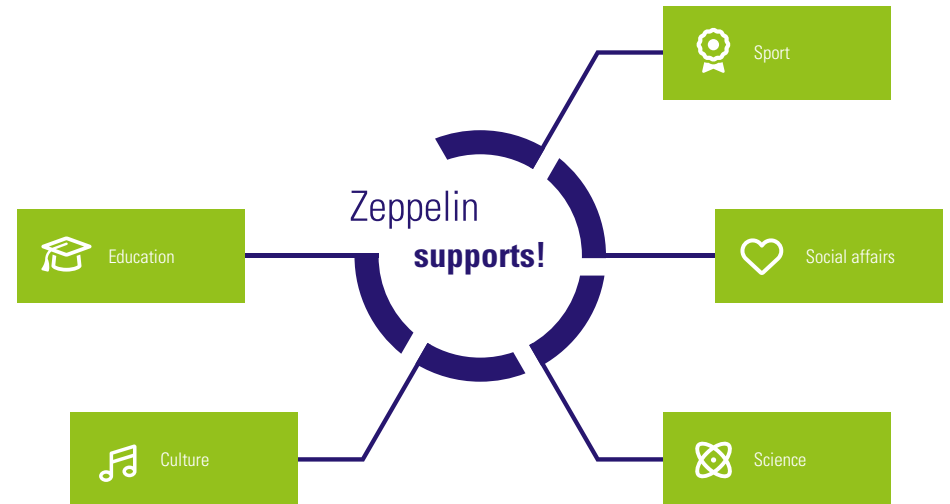
In the fall of 2020, a donation committee was set up at Group level. This is made up of members of the Group Management Board, the Head of Group Auditing and the Group Compliance Officer. In its regular meetings, the Donations Committee reviews all donation applications for more than 1,000 euros and is guided by the Group's donation strategy described above.

Progress in donations

Progress on objective

→ Allocate donations in accordance with the foundation's ethos and vision on the company's economic earning power: Donation amount in relation to Group net income³⁴ annually at a minimum of 0.5 – 1%

Scope of social responsibilities



The donations and sponsoring contributions made by the Zeppelin Group in recent years is shown below. The individual sums are divided across education, culture, science, social affairs, sport and others. The budget, which is available annually for promotional purposes, is based on the economic earnings power (earnings before taxes) of the Group, taking into account the foundation's ethos. The measured variable is calculated from the total donations in a calendar year in relation to the Group net income after reductions. The target range is between 0.5 and 1% per year. With a donation amount of around EUR 1.2 million (1.2% in relation to Group net income), Zeppelin achieved its goal in the 2023 fiscal year.

In 2023, the Zeppelin Group spent EUR 2.87 million on donations and sponsorships. Approximately 42% of this sum is attributable to donations and 58% to sponsorship. Education received the largest share of the funding.

Donations & sponsorship

Distribution of expenses for donations and sponsorships in 2023	Donations (€)	Sponsorships (€)
Education ³³	873,423	579,125
Culture	22,392	60,765
Science	60,000	0
Social affairs	138,334	1,330
Sport	10,160	803,328
Miscellaneous	92,738	228,784
Total (in euros)	1,197,047	1,673,332
Share of total expenses	42%	58%
Total in relation to consolidated total income³⁴	1.2%	1.7%

Measures in 2023

Donations

For many years, the Zeppelin Group has regularly supported Zeppelin University (ZU) in Friedrichshafen, founded in 2003. The foundation's university of applied sciences is now attended by more than 1,200 young people studying toward bachelor's and master's degrees. The Zeppelin Group promotes faculty chairs for business theory and international business theory.

The Zeppelin Group also supports the JUST! Zeppelin Youth Foundation, which was established in 1990 by Zeppelin GmbH and Luftschiffbau Zeppelin GmbH. Its aim is to support the education and training of young talent from the Friedrichshafen and Ravensburg-Weingarten region. Every two years the Foundation allocates sponsorship awards worth EUR 25,000 in total, recognizing outstanding work in natural sciences and engineering, economics, and social and cultural science. The prize winners are presented to the public and awarded the JUST! Award for impressive school projects and scientific papers.

Zeppelin supports Friedrichshafen Wissenswerkstatt, for example, which has made it its mission to interest and inspire young people about technology. This knowledge workshop enables them to work on specific technical projects, such as robot vehicles or air-water rockets. As the organization works closely with schools, universities, and chambers of commerce and industry, this also opens up professional prospects for young people. The Zeppelin Group has been supporting the Friedrichshafen knowledge workshop with donations for several years and supports the development of special online education formats for children.



³³ Including funding for Zeppelin University in Friedrichshafen

³⁴ Net profit after tax attributable to the shareholders of Zeppelin GmbH (see Annual Report 2023, p. 96)

Support for a good cause: (from left to right) CEO Zeppelin Austria Stephan Bothen, Andrea Prantl from St. Anna Kinderspital and CFO Zeppelin Austria Michael Härtel at the donation presentation



In the Social area, the company is also involved in child and youth welfare projects around the world. Zeppelin has been supporting the charitable organization Home from Home for several years now. The organization's focus is creating a better future for orphans, HIV-positive children and those who are no longer with their families, in the townships near Cape Town. Supporting projects in the health sector is also an important part of our social commitment. For example, Zeppelin regularly supports St. Anna Children's Cancer Research, which is dedicated to improving the diagnosis and therapy of cancer in children and adolescents. As part of the Tire Recycling Day in October 2023 in Friedrichshafen, Zeppelin collected old tires for donations that benefited the StreuObstGarten Weilmühle.

An annual donation project also takes place at Christmas and is organized by the trainees in the Zeppelin Group. In 2023, a total of 19,669 euros was collected and a variety of organizations were supported, including Lebenshilfe München, SOS Kinderdörfer (children's villages), Deutsche Krebshilfe (German cancer charity) and Ankerland.

Sponsorships

Fair play and sportsmanship are firmly anchored in Zeppelin's corporate culture. Which is why the Group is expressly committed to promoting sport and, in particular, team sports. Zeppelin feels a special connection between Friedrichshafen and the Lake Constance region, and has been supporting VfB Friedrichshafen as a sponsor to the volleyball, football, and badminton divisions for many years. Since 2022, the Group has also been an official partner of the HSG Friedrichshafen/Fischbach sports community and the associated Blisshards handball club. At the Garching site, VfR Garching is supported with the aim of HR marketing.

Zeppelin is also a promoter in the arts and culture sector. The Deutsches Museum's network of friends and sponsors in Munich, the "Kultur Caserne" cultural initiative in Friedrichshafen, and the Tyrolean Festival Erl are regular recipients of support. Individual projects are also considered, with donations made on an ad hoc basis.



ENVIRONMENTAL SUSTAINABILITY

**Our planet,
our responsibility**



8 Environmental Sustainability

GRI 3-3

For Zeppelin, environmental sustainability is a basic prerequisite for making an active contribution to environmental and climate protection. This is in line with the principle of infinity, to which Zeppelin is committed as a foundation-owned company.

8.1 An active contribution to environmental protection – our management approach

As part of its energy and environmental management system, the Zeppelin Group is committed to continuously improving its energy and environmental performance in order to protect the environment, prevent environmental pollution, reduce global warming, and strengthen its market position. Work is always carried out in accordance with the principle of prudence, i.e. potential negative impacts on the environment are reduced as far as possible from the outset and, in the best-case scenario, completely avoided.

The Management Board actively promotes target achievement by providing the necessary resources, data and information, and appoints an energy and environmental management officer who continuously improves the management systems in accordance with ISO 14001 and ISO 50001. This person will be supported in the implementation by further contact persons in the individual companies. Zeppelin naturally complies with the statutory requirements and all other binding obligations in the energy and environmental sector. The relevant procedures and specifications for alignment, development, monitoring, and improvement of the management system are described in the management manual. The integrated environmental policy as well as the strategic direction and all objectives and measures derived from it are reviewed at regular intervals and, if necessary, adapted to changing underlying conditions. Once a year, a management review is held with the Group Management Board to assess the effectiveness of the management systems. The effectiveness of the energy and environmental management system was confirmed for 2023.

The scope of the energy and environmental management system extends across all German companies and is covered by a matrix certification. As part of the matrix certification, an energy management system according to ISO 50001 was also implemented in Austria, Slovakia, the Czech Republic, Poland, Sweden, and Denmark. In addition to energy management, the Slovak Republic, Sweden, Denmark and the Czech Republic have local certificates for an environmental management system in accordance with ISO 14001.

Group financing with clear sustainability objectives is important for Zeppelin. For this reason, particular focus was placed on the integrated green loan clause with Group-wide sustainability targets in the summer 2023 renegotiation of the syndicated loan, which has been in place since 2011. This was supplemented by intermediate targets in the areas of CO₂, energy and fresh water savings. The achievement of the sustainability targets has a positive and negative impact on the interest on loans. In addition to implementing efficiency and savings measures, an annual external audit of the non-financial key figures on energy and water consumption as well as CO₂ emissions is required for a successful target evaluation. In 2023, the first audit was successfully carried out to confirm the 2022 data pool for considering the sustainability targets in the syndicated loan agreement. The first review of target achievement for the 2023 fiscal year will take place in 2024.

8.2 Carbon neutrality

GRI 3-3, 302-1, 302-2, 302-3, 302-4, 305-1, 305-2, 305-3, 305-4, 305-5

As a constantly growing company with a wide range of business areas, energy is continuously required within the Zeppelin Group. Zeppelin has defined strategic and operational objectives in the course of the efficiency concept in order to minimize the environmental impact of the energy consumption of our business operations and to improve energy and environmental performance.

Progress in carbon neutrality

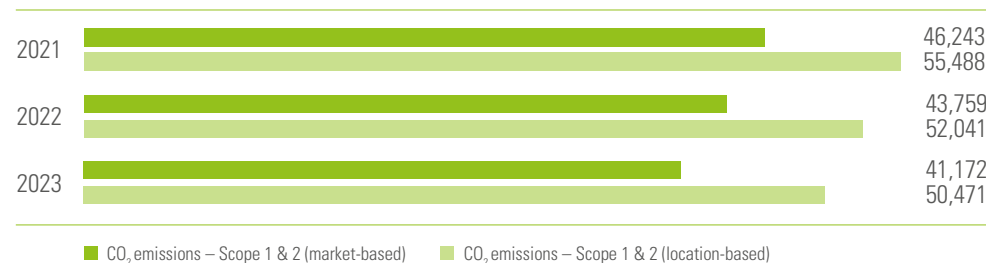
→ Progress on objectives 1 und 2

1. Carbon neutral in ongoing business operations by 2030 (Scope 1 & 2 market-based)
2. Reduce CO₂ emissions by 46% by 2027 (base year 2022, Scope 1 & 2 market-based)³⁵

The Zeppelin Group has set itself the target of being a net-zero carbon company in its ongoing business operations by 2030 at the latest. Greenwashing is rejected and compensation measures are the last option for offsetting CO₂ emissions. CO₂ emissions are therefore reported once in accordance with the Green House Gas Protocol, a globally recognized standard, including emissions from Scope 1 and 2. Since 2021, CO₂ emissions have been calculated using the market-based and location-based method. The market-based method refers to the emissions of the electricity supplier or an individual electricity product, whereas the location-based approach refers to the average emission factors of the country where electricity consumption takes place. If there are specific emission factors of the respective energy supplier, these were used for the calculation of CO₂ emissions (market-based).

Compared with the previous year, CO₂ emissions (market-based) were reduced by 5.9%. The main reasons for this are various energy-saving measures, building renovations, the expansion of renewable energies and the switch to green electricity.

Change in CO₂ emissions (metric tons CO₂ equivalents)



The implementation of carbon neutrality by itself means investing heavily, for example, for energy-efficient renovation or construction of new sites, the installation of photovoltaic systems or the gradual conversion to more energy-efficient plant and equipment. To achieve the goal of carbon neutrality, targets and measures were defined at SBU and national company level in 2021 to reduce CO₂ emissions as part of the Group Strategy Call. This includes the desired switch to 100% green electricity within the German companies, which, for example, was successfully implemented at our largest supplier Stadtwerk am See by the end of 2023. All other measures will now be implemented step by step by 2030. A detailed description can be found in the Measures area.

CO₂ emissions – Scope 1 & 2

Change in CO ₂ emissions (Scope 1 & 2)	Unit	2021	2022	2023
Scope 1	to CO ₂ e	38,537	36,843	35,709
Scope 2 (location-based)	to CO ₂ e	16,951	15,199	14,762
Scope 2 (market-based)	to CO ₂ e	7,706	6,916	5,463
CO₂ emissions – Scope 1 & 2 (location-based)	to CO₂e	55,488	52,041	50,471
CO₂ emissions – Scope 1 & 2 (market-based)	to CO₂e	46,243	43,759	41,172

³⁵ Target adjustment compared with previous year: New intermediate target added

CO₂ emissions (Scope 1 & 2) per SBU

SBU	Unit	2021		2022		2023	
		location-based	market-based	location-based	market-based	location-based	market-based
Construction Equipment Central Europe SBU	to CO ₂ e	19,788	16,871	18,383	15,653	17,734	15,044
Construction Equipment Nordics SBU	to CO ₂ e	4,131	3,648	4,933	3,628	5,006	3,305
Construction Equipment Eurasia SBU	to CO ₂ e	10,583	10,094	8,613	8,591	5,965	5,965
Rental SBU	to CO ₂ e	10,595	9,212	10,400	9,141	12,026	10,591
Power Systems SBU	to CO ₂ e	3,271	2,531	3,109	2,381	3,171	2,359
Plant Engineering SBU	to CO ₂ e	5,865	3,427	5,540	3,865	5,506	3,615
Zeppelin GmbH (holding company)	to CO ₂ e	1,255	460	1,063	500	1,063	293
Zeppelin Group	to CO₂e	55,488	46,243	52,041	43,759	50,471	41,172

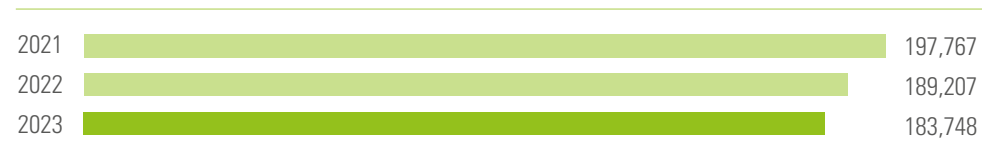
As explained in section 4.8, Zeppelin will also set targets for Scope 3 emissions in the future and determine these annually.

→ Progress on objective 3 und 4

- 3. Reduce energy consumption by 1% annually between 2021 and 2025 (electricity, heat)
- 4. Reduce energy consumption (excluding mobility) per EUR million in sales by 9.5% by 2027 (base year 2022)³⁶

The total energy consumption results from the individual consumption per Group company and is stated in megawatt hours (MWh)³⁷ In the 2023 reporting year, an absolute reduction in energy consumption of 5,459 MWh (-2.9%) was recorded. The largest share of this is due to reduced electricity and heat consumption (-3,464 MWh). The main reasons are the successful implementation of energy saving measures taken at several sites as part of the modernization strategy. Added to this is the fact that Germany had a comparatively mild year in 2023, which is associated with low heating demand. Therefore, progress has been made towards objective 3.

Total Group energy consumption (megawatt hours)



Total energy consumption per strategic business unit (SBU)

SBU	Einheit	2021	2022	2023
Construction Equipment Central Europe SBU	MWh	71,510	67,635	65,333
Construction Equipment Nordics SBU	MWh	18,290	20,372	20,892
Construction Equipment Eurasia SBU	MWh	36,046	30,829	21,303
Rental SBU	MWh	37,020	37,134	42,924
Power Systems SBU	MWh	11,830	11,186	11,411
Plant Engineering SBU	MWh	19,602	19,052	18,789
Zeppelin GmbH (holding company)	MWh	3,469	2,999	2,999
Zeppelin Group³⁸	MWh	197,767	189,207	183,651

³⁶ Target adjustment compared with previous year: New intermediate target added
³⁷ The total energy consumption shown includes a small percentage of forecast consumption (less than 5%).
³⁸ Total energy consumption excluding HVO, ethanol and CNG

Overview of energy consumption per energy type³⁹

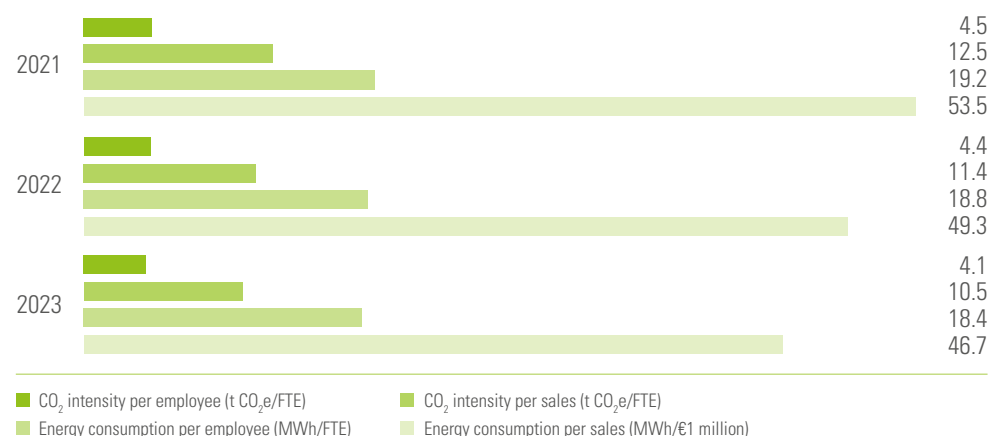
Type of energy	Unit	2021	2022	2023
Consumption of natural/liquid/propane gas	MWh	43,541	36,276	32,244
District/local heating consumption	MWh	9,405	10,189	10,165
Heating oil consumption	MWh	2,382	2,795	2,574
Diesel consumption (heating)	MWh	0	5	136
Total heat consumption	MWh	55,328	49,265	47,119
Electricity consumption	MWh	32,154	30,765	28,845
Electricity consumption (fleet)	MWh	N/A	N/A	602
Total power consumption	MWh	32,154	30,765	29,447
Diesel consumption (fleet)	MWh	98,732	98,065	96,645
Diesel consumption (other)	MWh	1,105	616	1,258
Gasoline consumption	MWh	9,665	9,613	7,694
Consumption of HVO (hydrogenated vegetable oil)	MWh	0	0	9
Ethanol consumption	MWh	0	0	59
CNG	MWh	0	0	31
Total fuel consumption	MWh	109,502	108,294	105,696
Consumption of renewable energies	MWh	783	883	1,486
Total energy consumption	MWh	197,767	189,207	183,748
Energy consumption excluding mobility	MWh	-	81,529	77,314
Energy consumption (excluding mobility) per EUR million in sales	MWh/€ million in sales	-	21.2	19.7

³⁹ No steam energy is consumed. Cooling energy is included in the power consumption, e.g. when air conditioning units are operated. No external energy is sold to third parties. Energy consumption is instead attributable to internal demand.

The majority of energy consumption was due to the use of fuels: Around 58% of the total worldwide energy consumption in 2023 was caused by diesel and gasoline consumption. This includes the consumption of service vehicles for travel to the customer’s premises, to the construction site or to the plant, as well as the fuel consumption of company vehicles for employees entitled to use one.

The development of the performance indicators shows both decreasing CO₂ emissions and decreasing energy consumption each year. The total energy consumption and the CO₂ emissions (Scope 1 & 2 – market-based) in relation to the number of employees (FTE) and the revenue generated were used for the calculation. The performance indicator for objective 4 is based on total energy consumption excluding mobility. Total energy consumption excluding mobility decreased by 7.5% in relation to sales compared with the base year 2022. As a result, the new intermediate target was achieved.

Performance indicators⁴⁰ CO₂ intensity and energy consumption



⁴⁰ The performance indicators per employee in 2021 and 2022 have changed slightly due to a changed data base.

Measures in 2023

Modernization strategy for the sites

The Zeppelin Group has set itself the target of being a net-zero carbon company by 2030 at the latest. For the real estate sector, this means that no more CO₂ emissions may be released from the operation of the buildings used by Zeppelin. The CSR strategy adopted for this purpose is based on five key measures: insulating the building envelope, modernizing the building technology, using photovoltaic systems and (if possible) geothermal energy as well as electric mobility. Measures are also being implemented to reduce fresh water consumption. All upcoming new construction projects also follow the specifications of climate neutrality in their planning and implementation. As part of the CSR activities, the Smartmeter project was also launched to digitally record and evaluate all consumption data (electricity, water, gas) at the sites. This also further optimizes the various types of consumption.

- Ulm, Freiburg and Rendsburg: In 2023, the sites in Ulm, Freiburg and Rendsburg were renovated with energy-efficient measures. The Rendsburg and Freiburg sites were converted to heat pumps in conjunction with photovoltaic systems. At the Ulm site, we opted to convert to district heating, which comes as waste heat from thermal waste treatment.
- Friedrichshafen: Comprehensive modernization work started on the Ludwig-Dürr Hall in Friedrichshafen in June 2023. Approximately 8,000 square meters of hall walls will be replaced, old existing walls will be replaced with high-quality insulated walls in a double-shell design and the exterior walls will be extensively lined with PV modules. The heating energy demand is expected to fall by 1,000 megawatt hours per year, which could save roughly 220 metric tons of CO₂. The installed PV power is expected to be 468 kilowatts peak and will be used to supply the site. The measures will be implemented in ongoing operations by 2025 and are intended to contribute to a reduction of approx. 50% of the building's total energy requirements.

Modernization of the Ludwig-Dürr Hall in Friedrichshafen began in 2023



229,000 kWh of green electricity: Generated by the PV system at the Zeppelin Armenia site, newly installed in 2023



- Armenia: In 2023, a photovoltaic system with a total output of 152.6 kilowatt peaks was installed at Zeppelin’s Abovyan site in Armenia, which can generate approximately 229,000 kilowatt hours of green electricity annually.
- Photovoltaics (PV) and light-emitting diodes (LED): Twelve additional sites worldwide have been using photovoltaic systems since the reporting year and further conversions to LED lighting have been carried out.

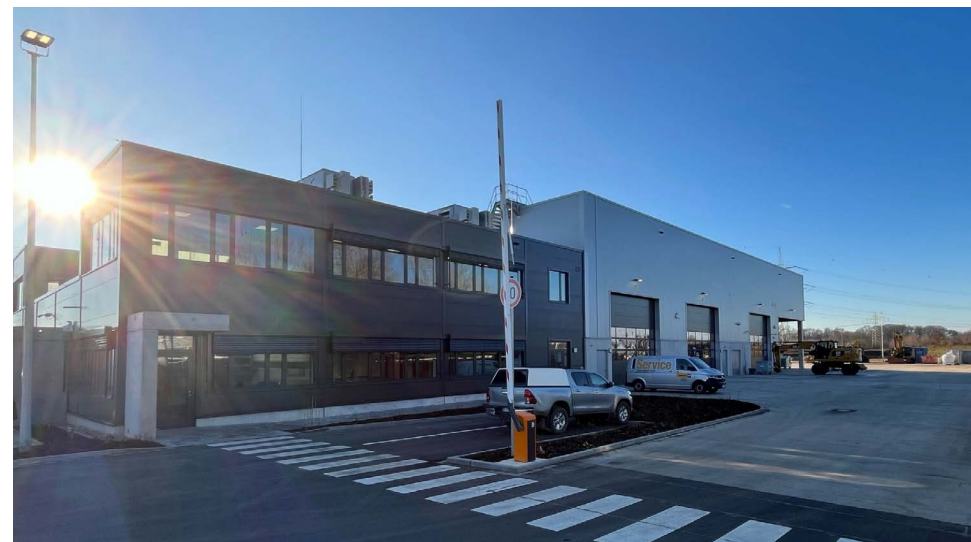
New construction at the Eschweiler site

At the end of 2023, the new building was commissioned at our approximately 24,000 square meter site in Eschweiler. The building, which is used by two Zeppelin companies, is equipped with a modern air source heat pump that ensures efficient heating of the office and workshop areas. The electricity required for this comes from 100% renewable energy sources. In addition to the high energy standards, the washing hall has also been equipped with resource-saving technology (see 8.3 Reduce water consumption).

E-mobility at Zeppelin

On January 1, 2021, the Zeppelin Group added electric and hybrid vehicles to its fleet used by German companies. Vehicles with an electric or hybrid drive are significantly lower in emissions than those with conventional combustion engines. Zeppelin can therefore significantly reduce its CO₂ emissions, which are largely caused by the fleet. Compared with the previous year, the proportion of electric and hybrid vehicles in Group-wide company vehicles (passenger cars) increased from 8 to 14%. Electric-powered company vehicles saw the greatest increase with 95 new vehicles (+194%). A pilot project to convert service vehicles to electric drive was also initiated. The electric vehicles can be charged via the charging network at Zeppelin, which is currently being built. In 2023, Zeppelin had 283 electric charging stations at its Group-wide sites. As part of the modernization strategy, additional sites will be gradually equipped with charging stations in the coming years.

The new building at the Eschweiler site is equipped with modern, climate-friendly technologies



8.3 Reduce water consumption

GRI 3-3, 303-1, 303-2, 303-3, 303-4, 303-5

Climate change, extreme weather events and longer periods of drought have a major impact on the availability of clean drinking water. To counteract the risks posed by water scarcity and the associated water stress, Zeppelin has defined goals for the efficient use of this important resource.

Progress in water consumption

→ Progress on objective 1 und 2

1. Reduce fresh water consumption by 17.2% by 2027 (base year: 2022)⁴¹
2. Reduce fresh water consumption by 30% by 2030 (base year: 2022)⁴²

In 2021, the Zeppelin Group set itself the goal of reducing fresh water consumption by 30% by 2030 as part of the Group Strategy Call. In the 2023 reporting year, a voluntary audit of the 2022 non-financial KPIs in the area of water took place for the first time. For this reason, the base year for target achievement was adjusted from 2021 to 2022 and taken into account when renewing the syndicated loan agreement. The fresh water consumption is based on the individual consumption per national company.

In the 2023 reporting year, water consumption decreased by 10.2% overall. Fresh water consumption was reduced by 10.7% compared with the base year 2022, which represents a major step forward in achieving the target. This is also due to an increased proportion of rainwater used in total water consumption, which was 1,810 cubic meters in 2023 (2022: 1,186 m³). The largest water savings were recorded in the Construction Equipment Eurasia SBU and the Plant Engineering SBU.

⁴¹ Target adjustment compared with previous year: New intermediate target added
⁴² Target adjustment compared with previous year: Base year adjusted from 2021 to 2022

Total Group water consumption (cubic meters)

2021		138,438
2022		148,894
2023		133,640

Total water consumption (fresh water + gray water) per strategic business unit (SBU)

SBU	Einheit	2021	2022	2023
Construction Equipment Central Europe SBU	m ³	42,054	42,379	36,337
Construction Equipment Nordics SBU	m ³	8,332	10,749	12,774
Construction Equipment Eurasia SBU	m ³	40,503	37,370	28,830
Rental SBU	m ³	20,960	21,654	23,819
Power Systems SBU	m ³	3,014	3,053	3,313
Plant Engineering SBU	m ³	19,294	29,469	24,117
Zeppelin GmbH (holding company)	m ³	4,281	4,220	4,450
Zeppelin Group	m³	138,438	148,894	133,640

Using the program “Aqueduct tool. The Aqueduct 3.0” from the World Resource Institute, a detailed analysis was conducted to identify sites with high water risk and water stress. Water risk refers to the likelihood that a site will be faced with high challenges due to water scarcity, water stress, flooding, deterioration in infrastructure, drought or weak water management. The severity of the future impact is also considered here. There is a high water stress if the demand for water within an area cannot be met with the help of the available water resources. A total of 20 sites with extremely high water stress were identified. These are located in India, Armenia, China, Russia⁴³, Uzbekistan, Belgium, Greenland, Tajikistan and Turkmenistan. The water consumption of these sites in 2023 was 20,801 m³ (2022: 22,132 m³). Particularly in these regions, it is very important to use water sparingly.

⁴³ Three Russian sites, two of which were closed during the 2023 reporting year

As part of the environmental management system, those sites that are integrated into the scope of ISO 14001 deal with the material environmental aspects. These include the impact of our business activities, including water consumption, such as in our washing facilities through the cleaning of construction equipment. If the consumption of water or the production of wastewater is classified as a material environmental aspect, appropriate options for reducing the effects on the environment are identified.

Measures in 2023

Some of the measures successfully implemented in 2023 include:

Wash stations at Zeppelin Baumaschinen GmbH

A potential analysis for the overhaul of rainwater cisterns was carried out at the Zeppelin Baumaschinen GmbH sites. This enabled a rainwater cistern to be put back into operation in 2023. Water-saving technologies were used in the construction of the new Eschweiler site. The use of rainwater for the washing hall and the outdoor wash station makes it possible to significantly reduce drinking water consumption. The washing hall is equipped with a medium-pressure system that works with circulating water and is supplied exclusively with rainwater. In addition, the high-pressure cleaners are electrically operated, which results in minimal emissions.

Zeppelin Systems GmbH refrigeration system

Increased water consumption was recorded in 2022. This was caused by the constant room cooling required for the calibration and measurement equipment. In the reporting year, the previous evaporative cooling system was replaced with a more efficient, electrically operated compression chiller with closed refrigerant circuits. This concept can be easily combined with a photovoltaic system, as heat input and photovoltaic power generation are consistently coupled due to the sun.

8.4 Circular economy

GRI 3-3, 306-1, 306-2, 306-3, 306-4, 306-5

In terms of the circular economy, material resources are used efficiently to avoid waste. By preserving materials and products, the aim is to create a sustainable economy that conserves resources and at the same time promotes economic growth. In this context, different strategies and technologies are used to recycle, repair, or reuse materials.

An assessment of the environmental aspects is carried out as part of the environmental management system in order to consider the environmental impacts of waste. In addition to other factors, the production of waste and by-products is assessed through action in operations. Corresponding improvement potentials and measures to reduce the impact on the environment are defined for the relevant activities and environmental aspects. In the measurement of the companies that fall within the scope of application, the logistics, the hazardous materials storage facilities and, in the Construction Equipment Central Europe SBU, the sludge traps required to clean the machines have a major influence on the generation of waste.

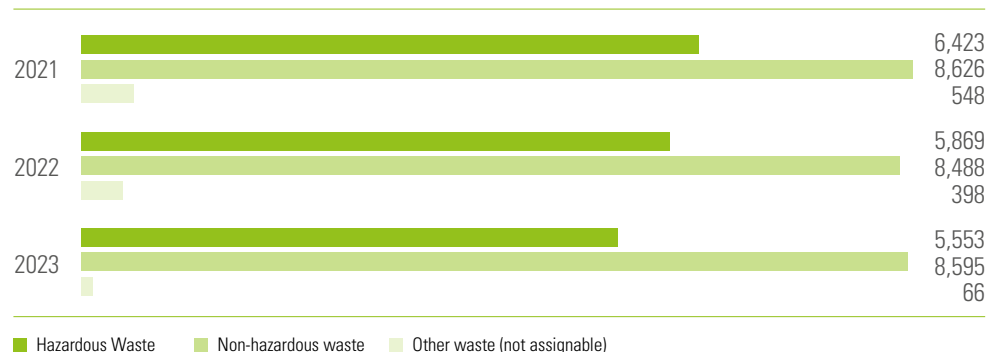
Progress in the circular economy

→ Progress on objectives

1. Greatest possible resource efficiency through prevention and reduction of waste
2. Global analysis of waste streams and types
3. Cooperation exclusively with qualified waste disposal companies
4. Worldwide substitution testing of hazardous substances by 2025

Zeppelin’s main objective is to make the most of the resources and products available, and to prevent or reduce the generation of waste from the outset. Disposal is always seen as the last resort, the top priority being avoidance, reduction, reuse or recycling. The amount of waste is based on the individual consumption per company and is specified in metric tons. In the 2023 reporting year, the absolute amount of waste was reduced by about 3.7%. Reported waste is categorized into non-hazardous and hazardous waste. Non-hazardous waste includes paper, cardboard, plastics, wood, mixed municipal waste and biodegradable waste. Hazardous waste includes, but is not limited to, paint and varnish residues, waste oil, sludges, and oil and grease residues. Around 60% of the reported waste in 2023 can be attributed to non-hazardous waste. The reduction in total waste was largely due to a reduction in hazardous waste. In the area of construction machine cleaning, the number of times the sludge trap is emptied is an important factor.

Waste volume (in metric tons)



Quantity of waste in metric tons per strategic business unit (SBU)

SBU	Unit	2021	2022	2023
Construction Equipment Central Europe SBU	Metric tons	6,989	6,553	6,167
Construction Equipment Nordics SBU	Metric tons	1,995	1,867	1,977
Construction Equipment Eurasia SBU	Metric tons	1,613	1,292	849
Rental SBU	Metric tons	3,130	3,176	3,179
Power Systems SBU	Metric tons	762	582	745
Plant Engineering SBU	Metric tons	1,066	1,241	1,235
Zeppelin GmbH (holding company)	Metric tons	42	43	60
Zeppelin Group	Metric tons	15,597	14,754	14,213

The target for the coming years is to analyze the waste flows and types in order to determine potential for optimization. In addition, we will continue to work exclusively with certified waste management companies. This requires checking corresponding framework agreements for adjustments. Group-wide substitution testing of hazardous substances will also be carried out by 2025 to avoid or reduce the use of hazardous substances as far as possible.

Measures in 2023

World Cleanup Day & “Clean Up the World” campaign

As part of various campaigns such as the “World Cleanup Day” or the “Clean Up the World” campaign, many Zeppelin employees in Germany, Uzbekistan and Poland campaigned for a waste-free (environmental) world. Equipped with bags and gloves, the volunteers were able to make a valuable contribution to maintaining cleanliness and promoting environmental awareness through waste collection campaigns, some of which were organized independently.

Optimization of material flows

Zeppelin has optimized its material flows at some sites to strengthen the circular economy and prevent waste.

- **Kassel:** A carton perforator was successfully tested and purchased at the Zeppelin Systems production site in Kassel. The perforator processes end-of-life cardboard into padded mats or padded filling material. This solution not only avoids the need to purchase packaging materials, it also protects the environment and reduces associated costs. The successful project has now been extended to the Rödermark and Friedrichshafen sites.
- **Czech Republic:** Since 2023, Zeppelin CZ has been using promotional items and everyday items made from recycled or particularly environmentally friendly materials. The products labeled “ECO BY ZEPPELIN” promote resource-conserving behavior and sustainability awareness in everyday office life.
- **USA:** In the USA, the use of plastic and polystyrene in almost all areas of life is the central and preferred raw material – including at Zeppelin Systems USA. In 2023, managers took action and, as a first step, banned the polystyrene cups from coffee machines from everyday work. This increased employees’ awareness of waste prevention, which will make it easier to implement further measures for environmentally friendly action in the future.

Zeppelin employees in various countries committed to a waste-free environment at World Clean Up Day





FACTS & FIGURES

**All data
at a glance**

Appendix

A1 About this report

GRI 2-14, 2-3, 2-4, 2-5

Report contents, period & report standard

With this report on “Sustainability at Zeppelin 2023”, the Zeppelin Group presents its achievements and targets in the area of sustainability, as well as the changes compared with the previous year. Group-wide collaboration at Zeppelin revolves around a management holding company – Zeppelin GmbH – and five strategic business units. Unless otherwise indicated, all information in this report relates to the Zeppelin Group. Zeppelin GmbH has reported in accordance with the GRI standards for the period from January 1, 2023 to December 31, 2023. The Sustainability Report refers to the period from January 1, 2021 to December 31, 2023 and thus comprises three full fiscal years. Reservation: For a few key figures, values are not consistently available, as reporting has been improved and expanded in terms of quality in the last two years. Due to the crisis situation in Ukraine and Russia, it was not possible to determine the environmental and energy data of the sites in those regions in 2022. For this reason, the previous year’s values were adopted for these sites. If a key figure does not include all companies, a corresponding identification indicates the corresponding database. For the sake of completeness and depending on the subject matter in question, this report also contains information on the circumstances and facts prior to the specified period, as well as providing an outlook for the subsequent years. The reference date for the most recent data collection in respect of 2023 is June 14, 2023. The editorial deadline for this report is June 21, 2024. The Zeppelin Group’s Sustainability Report is published in a completely revised form, similar to the Annual Report, once a year.

External assurance

Zeppelin GmbH was not subject to the reporting obligation in accordance with German and European legislation for the 2023 reporting year. The Sustainability Report is submitted on a voluntary basis and is a management decision. The report has been reviewed and approved by the Management Board. Content published in the Group management reports and consolidated financial statements for 2021, 2022 and

2023 was reviewed by an independent auditor. The audit opinion can be found at the end of the respective annual report. The contents of the annual report are marked in the text

Changes compared with previous year

Für das Geschäftsjahr 2023 wurden nachstehende Änderungen bei Zielen und Berichtswerten gegenüber dem Vorjahr vorgenommen, welche im Text oder in Fußnoten im Nachhaltigkeitsbericht vermerkt sind:

Objectives

- Compliance: Compliance: Increased compliance training rate from over 80% to over 90%
- Employee satisfaction: Maximum voluntary resignation rate increased from 5.0% to 7.5%
- Occupational health and safety: Health rate reduced from 97% to 95%
- Carbon neutrality: Progress of objectives 2 and 4 added as new intermediate targets
- Water consumption: New intermediate target added and base year adjusted from 2021 to 2022

Report values

- Compliance: Management participation in the basic compliance training changed from management (top management level) to all management levels from the 2023 reporting year
- Employee benefits: Reported value adjusted from long-term benefits to total benefits in accordance with IFRS (see also the Annual Report 2023, page 142)

Total energy consumption

Total energy consumption in MWh	Unit	Old value	New value	Change
2021	MWh	197,655	197,767	+112
2022	MWh	192,325	189,207	-3,118

Context

2021:

- Adjustment of fuel oil consumption at one site
- Adjustment of district heating consumption at a site due to the CHP (heat consumption forwarded to an external company was included)

2022:

- District heating: Adjustment of district heating consumption at a site due to the CHP (heat consumption forwarded to an external company was included; in addition, projections in Ukraine were replaced with real values)
- Gas and heating oil: Minor adjustments at ten sites; in addition, projections in Ukraine were replaced with real values
- Fuels: Adjustment at two sites; in addition, projections in Ukraine were replaced with real values
- Electricity: Adjustment at two sites; in addition, projections in Ukraine were replaced with real values

CO₂ emissions (location-based)

CO ₂ emissions (Scope 1 & 2, location-based)	Unit	Old value	New value	Change
2021	tCO ₂ e	55,456	55,488	+32
2022	tCO ₂ e	53,292	52,041	-1,251

CO₂ emissions (market-based)

CO ₂ emissions (Scope 1 & 2, market-based)	Unit	Old value	New value	Change
2021	tCO ₂ e	46,193	46,243	+50
2022	tCO ₂ e	43,674	43,759	+85

Context

- Changes in the data basis for energy also affect the calculation of emission values
- Adjustment of a supplier-specific emission factor for electricity in Germany
- Emission factors for electricity could be adapted due to a data update (source: VDA)

Water consumption

Water consumption	Unit	Old value	New value	Change
2022	m3	147,940	148,894	+954

Context

2022:

- Correction of water consumption at two sites

Waste volumes

Waste volumes in t	Unit	Old value	New value	Change
2022	t	14,938	14,754	-184

Context

- Correction of waste volumes based on the audit of waste balances at seven sites

Z IDEA reward amount paid out 2022

Correction of the reward amount paid from 11,600 euros to 24,122 euros

Key figures in relation to employees (2021 and 2022):

The conversion of the calculation to the number of employees (FTE) reported in the Annual Report in the respective year has resulted in retroactive changes to performance indicators in the areas of work-related accidents, LTIF, absence days, CO₂ emissions and energy consumption in 2022 and 2021.

HR key figures

Proportion of women	2021	2022	Change
Proportion of women at 1st management level	N/A	N/A	Newly added (2021: 21, 2022: 20)
Proportion of women at 2nd management level	21	20	2021: 18
Proportion of women at 3rd management level	18	20	2021: 17, 2022: 15

Personnel costs in million euros	Unit	Old value	New value	Change
2022	€ million	754	745	-9

Total number of employees (FTE)	Old value	New value
2021	10,673	10,312
2022	10,417	10,041

Context

- Transposed figures in personnel costs
- Double consideration of trainees for employees total corrected
- Due to the transition to a new leading HR system, the reporting logic changed in 2023 and was restructured. This is associated with the standardization to a reliable and transparent data basis, which has led to adjustments in terms of comparability for 2021 and 2022.

A2 GRI index

Declaration on application

Zeppelin GmbH has reported in accordance with the GRI standards for the period from January 1, 2023 to December 31, 2023.

GRI 1 used

GRI 1: Foundation 2021

Applicable GRI industry standard

none

GRI standard	Location	Notes
The organization and its reporting practices		
GRI 2-1	→ Company profile → Annual Report 2023, p. 18 ff.	
GRI 2-2	→ A4 Overview of national subsidiaries	
GRI 2-3	→ A1 About this report → Annual Report 2023, p. 76	
GRI 2-4	→ A1 About this reportt	
GRI 2-5	→ A1 About this report	
Activities and employees		
GRI 2-6	→ Company profile → Sustainable supplier managementt → Annual Report 2023, p. 21 ff.	
GRI 2-7	→ Human Resources → Annual Report 2023, p. 64 ff..	The number of employees (FTE) is stated in the Sustainability Report as of December 31, 2023 and in the Annual Report as an annual average. It is currently not possible to break down by employee with non-guaranteed working hours as per GRI 2-7 b iii, as this data is not yet recorded in an internationally standardized manner. Instead of the breakdown by full-time and part-time, a full-time rate is specified, which is calculated on the basis of the ratio of employees (FTE) to employees (headcount). The part-time ratio and the full-time ratio together add up to 100%. No distinction is made between full-time and part-time employees; all company benefits are also offered to part-time employees. This ensures compliance with the General Equal Treatment Act (AGG).
GRI 2-8	→ Human Resources	No significant proportion of the company's activities are carried out by employees who are employed outside Zeppelin.

GRI standard	Location	Notes
Corporate governance		
GRI 2-9	<ul style="list-style-type: none"> → The Group Management Board and the Supervisory Board → Annual Report 2023, p. 4 ff. and p. 13 ff. → Website (www.zeppelin.com) 	<p>The main activities and obligations of the Supervisory Board are set out on the website and in the Annual Report.</p> <p>The term of office of the members of the Supervisory Board is based on the statutory provisions, in particular Section 102 of the German Stock Corporation Act (AktG). The term of office of the members of the Group Management Board is based on the individual provisions of the employment contract and generally amounts to three years when appointed for the first time and then five years in each case.</p> <p>The collection of further information has been initiated. Insofar as relevant for Zeppelin with regard to the legal form and shareholder background, reports will be made on this in the future.</p>
GRI 2-10	→ Annual Report 2023, p. 14 ff.	<p>The committees and activities are described in the report of the Supervisory Board in the Annual Report 2023.</p> <p>Information on the formation of committees can be found in the rules of procedure of the Supervisory Board.</p> <p>Further information can be found in the annual report of the Supervisory Board in the Annual Report 2023. Six employee representatives are elected by employees. Two of these employee representatives must be representatives of trade unions represented in the company. Criteria for nomination and selection procedures for members of the Supervisory Board on the shareholder side are increasingly based on competence and diversity. The mayor of the city of Friedrichshafen (as a representative of the Zeppelin Foundation as shareholder and Chair of the Supervisory Board) pre-selects suitable candidates with the help of an external consulting firm. Whether there are conflicts of interest is examined in detail during the selection process. Suitable candidates are presented to the Board of Trustees of the Zeppelin Foundation and then to the municipal council of Friedrichshafen. The municipal council then decides which candidates are to be appointed as members of the Supervisory Board and instructs the representative of the city of Friedrichshafen to elect these persons at the shareholders' meeting.</p> <p>The collection of further information has been initiated. Insofar as relevant for Zeppelin with regard to the legal form and shareholder background, reports will be made on this in the future.</p>
GRI 2-11	<ul style="list-style-type: none"> → The Group Management Board and the Supervisory Board → Annual Report 2023, p. 13 ff. 	
GRI 2-12	→ Sustainability organization	
GRI 2-13	→ Sustainability organization	

GRI standard	Location	Notes
Corporate governance		
GRI 2-14	→ A1 About this report	
GRI 2-15		<p>Members of the Supervisory Board are committed to the interests of the company and may neither pursue personal interests nor take advantage of business opportunities to which Zeppelin is entitled. There is an obligation to disclose conflicts of interest, in particular those that may arise due to an advisory or executive function with customers, suppliers, lenders, or other third parties. In the event of significant and not only temporary conflicts of interest, the Supervisory Board member should resign from office. Advisory/service agreements between the Supervisory Board member and Zeppelin must be disclosed and require the approval of the Supervisory Board in order to be effective.</p> <p>The Zeppelin Foundation of the city of Friedrichshafen is a direct and indirect sole shareholder of Zeppelin GmbH. According to the Articles of Association, the mayor of the city of Friedrichshafen is Chair of the Supervisory Board.</p> <p>The collection of further information has been initiated. Insofar as relevant for Zeppelin with regard to the legal form and shareholder background, reports will be made on this in the future.</p>
GRI 2-16	<ul style="list-style-type: none"> → Compliance → Data protection → Risk management 	<p>The Zeppelin Group has established a Trustline that enables anonymous submission of information that is reported independently by the Compliance organization to the Management Board and the Supervisory Board.</p> <p>The Chair of the Management Board and the entire Management Board also update the Chair of the Supervisory Board and his representatives outside board meetings on current developments and material processes. All members of the Supervisory Board are informed in writing of the Group's performance on a monthly, timely and comprehensive basis; in addition, the Management Board informs them of the current developments and significant events at the meetings of the Supervisory Board.</p>
GRI 2-17	→ Sustainable organization	
GRI 2-18	→ Sustainable organization	

GRI standard	Location	Notes
Corporate governance		
GRI 2-19	→ Annual Report 2023, p. 161	<p>Information pursuant to GRI 2-19 a. can be found in the Annual Report 2023 (p. 161). The collection of further information has been initiated. Insofar as relevant for Zeppelin with regard to the legal form and shareholder background, reports will be made on this in the future.</p> <p>Remuneration policy for managers: The different legal requirements of the various countries in which Zeppelin operates, as well as the different business models of the strategic business units, contradict the approach of comprehensive, globally harmonized remuneration systems. This means that the basic approach to remuneration is determined by local regulations and principles of the individual companies. Group management positions have been defined at a higher level, which serve, among other things, as orientation for remuneration.</p> <p>Furthermore, a uniform procedure is chosen for Group-wide special payments, taking into account the country-specific purchasing power.</p> <p>At present, sustainability targets are not yet part of the incentive models.</p>
GRI 2-20		<p>The amount of the annual remuneration of the Supervisory Board is determined by resolution of the shareholders' meeting and thus indirectly by the municipal council of the city of Friedrichshafen. An appropriateness check is commissioned by the Chairman of the Supervisory Board. An external consulting firm is commissioned for this purpose, which uses publicly accessible investigations into Supervisory Board remuneration at comparable companies as a basis.</p> <p>The collection of further information has been initiated. Insofar as relevant for Zeppelin with regard to the legal form and shareholder background, reports will be made on this in the future.</p>
GRI 2-21		<p>The information according to GRI 2-21 cannot yet be evaluated. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).</p>

GRI standard	Location	Notes
Strategy, policies and practices		
GRI 2-22	→ Statement by the Management Board → Group and sustainability strategy	
GRI 2-23	→ Human rights due diligence → Compliance → Sustainable supplier management → Code of Conduct Supplier (CoC)	Code of conduct for partners, suppliers and service providers: www.zeppelin.com/de/de/verantwortung/compliance/
GRI 2-24	→ Human rights due diligence → Compliance → Sustainable supplier management → Code of Conduct Supplier (CoC)	
GRI 2-25	→ Compliance → Human rights due diligence → Sustainable supplier management	www.zeppelin-trustline.com
GRI 2-26	→ Compliance	www.zeppelin-trustline.com
GRI 2-27	→ Compliance	
GRI 2-28	→ Membership of associations and initiatives	
Stakeholder engagement		
GRI 2-29	→ Stakeholder and materiality analysis	
GRI 2-30	→ Human Resources	Due to the different structures, it is currently not possible to indicate the percentage of employees covered by a collective agreement required by GRI 2-30 a. More detailed information on collective agreements can be found

GRI standard	Location	
		in the Human Resources section.
Material topics		
GRI 3-1	→ Stakeholder and materiality analysis	
GRI 3-2	→ Stakeholder and materiality analysis	
Compliance		
GRI 3-3	→ Compliance → Risk management	
GRI 205-1	→ Compliance → Annual Report 2023, p. 87 f.	Within the framework of the approved audit plan, the audit department carries out random checks with regard to abnormalities. Potential corruption risks can thus be identified when reviewing benefits, consultancy contracts, memberships and sponsorships. A description of the audited companies is included in the Annual Report 2023.
GRI 205-2	→ Compliance	GRI 205-2 b: The anti-corruption policy is stored centrally in Sharepoint and is therefore visible, valid and mandatory for all employees. GRI 205-2 c: Business partners receive the Code of Conduct for Suppliers, which includes the topic of anti-corruption. A list of the total number of business partners and region is not available at this time. Whether and to what extent this data will be evaluated in the future still needs to be reviewed.
GRI 205-3	→ Compliance	There were no confirmed incidents of corruption in the 2023 fiscal year and no employees were dismissed or warned about corruption. There have been no confirmed incidents where contracts with business partners have been terminated or not renewed due to violations related to corruption. No public law proceedings related to corruption have been initiated against the organization or its employees during the reporting period.
GRI 206-1	→ Compliance	
Data protection		
GRI 3-3	→ Data protection → Risk management	
GRI 418-1	→ Data protection	
Quality management		
GRI 3-3	→ Quality management	

GRI standard	Location	Notes
Sustainable supplier management		
GRI 3-3	→ Sustainable supplier management → Risk management	
GRI 308-1	→ Sustainable supplier management	
GRI 308-2	→ Sustainable supplier management	The information according to GRI 308 cannot yet be evaluated. As part of the project to implement the requirements of the Supply Chain Due Diligence Act, the required processes are currently being set up and can therefore only be reported in a standardized manner across all companies in the next fiscal years.
GRI 408-1	→ Human rights due diligence → Sustainable supplier management	The information according to GRI 408-1 cannot yet be evaluated. As part of the project to implement the requirements of the Supply Chain Due Diligence Act, the required processes are currently being set up and can therefore only be reported in a standardized manner across all companies in the next fiscal years. The Zeppelin Group is not aware of any child labor, forced labor or compulsory labor at its sites in the reporting period ending December 31, 2023.
GRI 409-1	→ Human rights due diligence → Sustainable supplier management	The information according to GRI 409-1 cannot yet be evaluated. As part of the project to implement the requirements of the Supply Chain Due Diligence Act, the required processes are currently being set up and can therefore only be reported in a standardized manner across all companies in the next fiscal years. The Zeppelin Group is not aware of any child labor, forced labor or compulsory labor at its sites in the reporting period ending December 31, 2023.
GRI 414-1	→ Sustainable supplier management	The information according to GRI 414 cannot yet be evaluated. As part of the project to implement the requirements of the Supply Chain Due Diligence Act, the required processes are currently being set up and can therefore only be reported in a standardized manner across all companies in the next fiscal years.
GRI 414-2	→ Sustainable supplier management	The information according to GRI 414 cannot yet be evaluated. As part of the project to implement the requirements of the Supply Chain Due Diligence Act, the required processes are currently being set up and can therefore only be reported in a standardized manner across all companies in the next fiscal years.

GRI standard	Location	Notes
Sustainable products & services		
GRI 3-3	→ Sustainable products & services → Risk management	
GRI 301-3	→ Sustainable products & services	The information according to GRI 301-3 cannot yet be evaluated. It will be examined how this data can be collected internationally via new reporting channels.
GRI 302-5	→ Sustainable products & services	The information according to GRI 302-5 cannot yet be evaluated. It will be examined how this data can be collected internationally via new reporting channels.
Customer health and safety		
GRI 3-3	→ Customer health and safety → Risk management	The information according to GRI 3-3 e and f cannot yet be reported. The topic of customer health and safety has only been included in the Sustainability Report since 2022. International processes and reporting structures must be implemented further in the coming years.
GRI 416-1	→ Customer health and safety	The indication according to GRI 416-1 a of a percentage of all reviewed product and service categories cannot yet be reported. The products and systems supplied by Zeppelin are subject to the Machinery Directive. For European customers, we issue a CE certificate for all machines and systems. The same quality standards apply to non-European customers at Zeppelin, but in these cases we do not issue a CE certificate. International processes and reporting structures on the topic of customer health and safety must be implemented further in the coming years.
GRI 416-2	→ Customer health and safety	The information according to GRI 416-1 and 2 cannot yet be reported. The topic of customer health and safety has only been included in the Sustainability Report since 2022. International processes and reporting structures must be implemented further in the coming years.
Carbon neutrality		
GRI 3-3	→ Carbon neutrality → Risk management	
GRI 302-1	→ Carbon neutrality	
GRI 302-2	→ Carbon neutrality → Current priorities and projects	The information according to GRI 302-2 cannot currently be evaluated. Scope 3 emissions were determined for the first time in 2023 in a cross-SBU project for all 15 categories. The data is based on 18 out of 45 relevant companies. All major companies are included. Due to identified data gaps, the focus is initially on closing these gaps and improving processes.

GRI standard	Location	Notes
Carbon neutrality		
GRI 302-3	→ Carbon neutrality	
GRI 302-4	→ Carbon neutrality → A3 Conversion factors for CO ₂ emissions	The information according to GRI 302-4 cannot yet be evaluated.
GRI 305-1	→ Carbon neutrality → A3 Conversion factors for CO	GRI 305-1 c: Biogenic CO ₂ emissions are not currently relevant for Zeppelin and are therefore not reported separately.
GRI 305-2	→ Carbon neutrality	
GRI 305-3	→ Carbon neutrality → Current priorities and projects	The information according to GRI 305-3 cannot currently be evaluated. Scope 3 emissions were determined for the first time in 2023 in a cross-SBU project for all 15 categories. The data is based on 18 out of 45 relevant companies. All major companies are included. Due to identified data gaps, the focus is initially on closing these gaps and improving processes.
GRI 305-4	→ Carbon neutrality	
GRI 305-5	→ Carbon neutrality	The report lists various measures that represent progress towards reducing CO ₂ emissions. The scope of greenhouse gas emission reductions, which are a direct consequence of emission reduction initiatives, cannot yet be presented. A standardized procedure will be developed in the future.
Reduce water consumption		
GRI 3-3	→ Reduce water consumption → Risk management	
GRI 303-1	→ Reduce water consumption	The information according to GRI 303-1 cannot yet be evaluated.
GRI 303-2	→ Reduce water consumption	Wastewater discharge is checked regularly and legal regulations are complied with. More detailed information in accordance with GRI 303-2 is not yet possible. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
GRI 303-3	→ Reduce water consumption	Currently, the data is not yet available in the depth of detail required by GRI 303-3. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
GRI 303-4	→ Reduce water consumption	Currently, the data is not yet available in the depth of detail required by GRI 303-4. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).

GRI standard	Location	Notes
Reduce water consumption		
GRI 303-5	→ Reduce water consumption	The information according to GRI 303-5 c and d cannot yet be evaluated. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
Circular economy		
GRI 3-3	→ Circular economy → Risk management	
GRI 306-1	→ Circular economy	At present, information in accordance with GRI 306-2 can only be provided for German companies. Regulations within the non-German companies may vary.
GRI 306-2	→ Circular economy	At present, information in accordance with GRI 306-2 can only be provided for German companies. Regulations within the non-German companies may vary.
GRI 306-3	→ Circular economy	
GRI 306-4	→ Circular economy	Currently, the data is not yet available in the depth of detail required by GRI 306-4. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
GRI 306-5	→ Circular economy	Currently, the data is not yet available in the depth of detail required by GRI 306-5. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
Occupational health and safety		
GRI 3-3	→ Occupational health and safety → Risk management	
GRI 403-1	→ Occupational health and safety	About 65% of employees are part of the occupational safety management system.
GRI 403-2	→ Occupational health and safety	
GRI 403-3	→ Occupational health and safety	
GRI 403-4	→ Occupational health and safety	In Germany, employee participation is sometimes covered by the works council. Studies such as sight tests and flu vaccinations were regularly coordinated. The works council is also involved at an early stage in major projects such as the design of the new work rooms at headquarters.

GRI standard	Location	Notes
Occupational health and safety		
GRI 403-5	→ Occupational health and safety	
GRI 403-6	→ Occupational health and safety	Measures to promote health are described in the section on occupational health and safety. The health services are available to Zeppelin employees. Third-party service providers are briefed annually and their ability to work is checked.
GRI 403-7	→ Occupational health and safety	
GRI 403-8	→ Occupational health and safety	Temporary workers and freelancers, etc. are covered in the OH&S Management System. The information according to GRI 403-8 a iii is not currently available. It will be assessed whether and how this data can be reported.
GRI 403-9	→ Occupational health and safety	The required information in GRI 403-9 b cannot yet be reported. It will be assessed whether and how this data can be reported.
GRI 403-10	→ Occupational health and safety	Due to the differences in legislation regarding the options for collecting country-specific medical data, the required data on work-related illnesses cannot be collected reliably.
Employee satisfaction		
GRI 3-3	→ Human Resources → Employee satisfaction → Risk management	
GRI 401-1	→ Employee satisfaction	The requirement of GRI 401-1 a is reported for the first time in this Sustainability Report 2023. The presentation of new hires by region can currently only be mapped via the strategic business units. It is not yet possible to report the data in accordance with GRI 401-1 b. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements). Instead of fluctuation, the sustainability report currently shows the average length of service and the rate of voluntary resignation.
GRI 401-2	→ Human Resources → Employee satisfaction	Company benefits are also offered to part-time employees.
GRI 401-3	→ Employee satisfaction	A breakdown according to GRI 401-3 cannot currently be reported. The Employee satisfaction section lists the total number of all employees in the Group who took parental leave in the reporting year. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).

GRI standard	Location	Notes
Diversity		
GRI 3-3	→ Diversity → Risk management	
GRI 405-1	→ Diversity	A breakdown per employee category according to GRI 405-1 b has not yet been drawn up. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
GRI 405-2	→ Diversity	The information according to GRI 405-2 cannot currently be evaluated. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
GRI 406-1	→ Diversity	The number of cases of discrimination as per GRI 406-1 cannot yet be reported. International reporting channels must be established in order to ensure reporting capability on the new requirements of the GRI and the CSRD (ESRS requirements).
Donations & Sponsorship		
GRI 3-3	→ Donations & Sponsoring → Risk management	

A3 Conversion factors for CO₂ emissions

For the calculation of CO₂ emissions, emission factors per energy source are required in order to convert consumption figures into an emission level. The emission factors used for each energy source are shown in the table below. CO₂ emissions are calculated in accordance with the Greenhouse Gas Standard. The operational control approach is used as a basis. In addition, the greenhouse gases of the Kyoto Protocol are included in the calculation of CO₂ equivalents. Emissions are currently determined using the location-based method and the market-based method. If specific emission factors provided by the supplier are available, these are used to calculate the emission values according to the market-based method.

Emission factors used to calculate CO₂ emissions

Energy source	Unit	Emission factor CO ₂ emissions (kg per unit)
Biogas ⁴⁴	m ³	0.148
Natural gas ⁴⁴	kWh	0.202
Bioethanol ⁴⁵	kWh	0.0012
CNG ⁴⁵	kWh	0.2
Heating oil ⁴⁴	kWh	0.266
HVO ⁴⁵	kWh	0.00373
Gasoline ⁴⁴	kWh	0.264
Diesel ⁴⁴	kWh	0.266
District and local heating ⁴⁴	kWh	0.280

⁴⁴ Source: Information sheet on the CO₂ factors of energy efficiency in the economy – grants and loans; Federal Office for Economic Affairs and Export Control Executive Staff Press and Public Relations 2019

⁴⁵ Source: Defra 2023

⁴⁶ Source: VDA, thinkstep AG; 2023

- Conversion of diesel, liters to kWh: Factor 9.86
- Conversion of gasoline, liters to kWh: Factor 8.77
- Conversion of HVO, liters to kWh: Factor 9.528
- Conversion of bioethanol, liters to kWh: Factor 7.42

Emissions data for electricity is highly dependent on the electricity mix, so each country has a customized emission factor:

Electricity data

Electricity data ⁴⁶	kg CO ₂ e / kWh
Armenia	Data from Russia
Belarus	Data from Russia
Benelux (Belgium)	0.19
Brazil	0.26
Bulgaria	0.61
China	0.72
Denmark	0.28
Germany	0.51
Finland	0.19
France	0.07
Greenland	No data
India	0.99
Italy	0.36
Korea	0.53
Austria	0.28

Electricity data	kg CO ₂ e / kWh
Poland	0.86
Romania	0.41
Russia	0.47
Data from Germany – composition of electricity mix similar	
Saudi Arabia	
Sweden	0.04
Singapore	0.40
Slovak Republic	0.40
Switzerland	0.17
Tajikistan	Data from Russia
Czech Republic	0.64
Turkmenistan	Data from Russia
United Kingdom (UK)	0.30
Ukraine	Data from Russia
USA	0.47

The emission factors come from freely available specialist literature and are based on the “Information Sheet CO₂ Factors” of the Federal Office for Economic Affairs and Export Control. The determination of emissions due to the use of refrigerants has so far been dispensed with due to the low relevance

A4 Overview of national subsidiaries

GRI 2-2

In the individual countries in which Zeppelin operates, the business is organized into national subsidiaries, as presented in the table below and included in this report.

Name	Country	Location
Zeppelin GmbH	Germany	Friedrichshafen, Germany
AT Baumaschinentechnik Beteiligungs GmbH	Germany	Munich
IBH Ingenieurbüro Herzbruch GmbH	Germany	Schwelm
klickrent GmbH	Germany	Berlin
Klickparts GmbH (merged with Zeppelin Baumaschinen GmbH in 2023)	Germany	Hallbergmoos
Magdalena Kitzmann GmbH	Germany	Lengerich
METON GmbH	Germany	Garching near Munich
SITECH Deutschland GmbH	Germany	Oberhausen
Zeppelin Aviation & Industrial Service GmbH	Germany	Friedrichshafen, Germany
Zeppelin Baumaschinen GmbH	Germany	Garching near Munich
Zeppelin Lab GmbH	Germany	Berlin
Zeppelin Power Systems GmbH	Germany	Hamburg, Germany
Zeppelin Power Systems Verwaltungs GmbH (merged into Zeppelin GmbH in 2022)	Germany	Hamburg, Germany
Zeppelin Rental GmbH	Germany	Garching near Munich

Name	Country	Locationj
Zeppelin Systems GmbH	Germany	Friedrichshafen, Germany
Zeppelin Armenien LLC	Armenia	Abovyan
Zeppelin Systems Benelux N.V.	Belgium	Genk
Zeppelin Systems Latin America Equipamentos Industriais Ltda.	Brazil	São Paulo
Zeppelin Systems China (Beijing) Co. Ltd.	China	Beijing
Zeppelin Systems China (Shanghai) Co. Ltd.	China	Shanghai
SITECH Danmark A/S	Denmark	Horsens
Zeppelin Danmark A/S	Denmark	Brøndby
Zeppelin Rental Danmark ApS (formerly CP ApS)	Denmark	Viby Sjælland
Zeppelin Systems UK Limited	England	Nottingham
Baltic Marine Contractors OÜ	Estonia	Tallinn
Zeppelin Systems France S.A.R.L.	France	Vénissieux Cedex
Smart Controls India Ltd.	India	Madhya, Pradesh
Zeppelin Systems India Pvt. Ltd.	India	Vadodara
Zeppelin Systems Italy S.p.A.	Italy	Reggio Emilia
SITECH Austria GmbH (consolidated for the first time in 2023)	Austria	Steyr
Zeppelin Österreich GmbH	Austria	Fischamend, near Vienna
Zeppelin Rental Österreich GmbH & Co. KG	Austria	Fischamend, near Vienna
Zeppelin Rental Österreich GmbH	Austria	Fischamend, near Vienna

Name	Country	Locationj
Zeppelin Polska Sp. z o.o.	Poland	Warsaw
Zeppelin Immobilien Russland 000	Russia	Moscow
Zeppelin Power Systems Russland 000	Russia	Moscow
Zeppelin Russland 000	Russia	Moscow
Zeppelin Systems Gulf Co. Ltd.	Saudi Arabia	Al Jubail
SITECH Sverige AB	Sweden	Örebro
Zeppelin Sverige AB	Sweden	Mölnådal
Zeppelin International AG	Switzerland	Steinhausen
Zeppelin Systems Singapore Pte. Ltd.	Singapore	Singapore
DIMA service for plant engineering s.r.o. (liquidated in 2023)	Slovak Republic	Bratislava
Zeppelin SK s.r.o.	Slovak Republic	Banska Bystrica
Zeppelin Systems Korea Corporation	South Korea	Gyeonggi Province
Zeppelin Tadschikistan 000	Tajikistan	Dushanbe
Zeppelin CZ s.r.o.	Czech Republic	Modletice near Prague
Construction SITECH CZ s.r.o.	Czech Republic	Brno
Zeppelin Turkmenistan JV	Turkmenistan	Ashgabat
PJSC "Ukrucukorteploi-zolyaciya" (UCTI)	Ukraine	Vyshneve
Zeppelin Marine Service Ukraine LLC	Ukraine	Kiev
Zeppelin Ukraine TOV	Ukraine	Kiev
Zeppelin Central Asia Machinery 000	Uzbekistan	Tashkent
Zeppelin Systems USA Inc.	United States of America	Odessa, Florida

A5 Overview of non-financial KPIs

KPI	Unit	2021	2022	2023
Financial sustainability				
Compliance				
Reported transgressions	Number	23	25	30
of which confirmed transgressions	Number	11	15	9
of which resolved transgressions	Number	6	14	9
Compliance resolution rate	%	55	93	100
Amount of fines, penalties and forfeitures imposed by final judgment	Euro	0	0	0
Corruption cases	Number	0	0	0
Total number of legal proceedings due to anti-competitive conduct and transgressions of antitrust and monopoly law	Number	0	0	0
Participants in Compliance basic training	Number	7,977	8,285	9,860
of which management (2021/2022), of which managers (2023)	Number	40	58	903
Participation rate for Compliance basic training, total	%	75.6	80.5	96.8
Data protection				
Participants in data protection basic training, total	Number	4,301	7,080	7,871
Participation rate for data protection basic training, total	%	40.8	68.8	77.2
Reported data protection complaints (in accordance with Article 33 GDPR)	Number	10	56	32
of which breaches reported to supervisory authorities	Number	0	6	2
Complaints concerning breaches of customer data protection	Number	N/A	0	0
Complaints from external parties	Number	N/A	0	0
Complaints from supervisory authorities	Number	N/A	0	0
Total number of identified cases of data theft and data loss related to customer data	Number	N/A	28	0

KPI	Unit	2021	2022	2023
Quality management				
Z IDEA ideas submitted	Number	622	434	352
Z IDEA rewarded ideas	Number	119	52	74
Participation rate in e-learning modules IMS & CSR	%	50	55	60
Social responsibility				
Employees				
Number of employees as of December 31	FTE	10,312	10,041	9,995
of which trainees	FTE	361	376	392
of which dual-study program students	FTE	22	24	20
Number of employees as of December 31	Headcount	10,555	10,291	10,189
Number of permanent employees	Headcount	10,449	10,209	9,937
Number of temporary employees	Headcount	106	82	252
Percentage of permanent employees	%	99	99	98
Full-time percentage	%	97.7	97.6	98.1
Average age in the Group:	Years	41.9	42.1	42.1
Age distribution below 25	%	6	6	8
Age distribution 26–30	%	11	11	10
Age distribution 31–35	%	15	14	14
Age distribution 36–40	%	17	16	15
Age distribution 41–45	%	14	14	14
Age distribution 46–50	%	11	11	11
Age distribution 51–55	%	12	11	11
Age distribution 56–60	%	10	11	11

KPI	Unit	2021	2022	2023
Employees				
Age distribution over 60	%	5	5	6
Personnel costs	€ million	692	745	787
Employee benefits (total, in accordance with IFRS)	€ thousand	278,203	226,424	234,787
Average Length of Service	Years	9.4	9.7	9.6
Voluntary termination rate	%	5.8	7.4	6.6
Employees who have taken parental leave	Headcount	110	90	86
Diversity				
Female	%	17	18	18 ⁴⁷
Male	%	83	82	82
Diverse	%	N/A	N/A	N/A
Proportion of women on the Supervisory Board	%	33	33	33
Proportion of women on the Management Board	%	25	25	25
Proportion of women at 1st management level	%	21	20	20
Proportion of women at 2nd management level	%	18	20	19
Proportion of women at 3rd management level	%	17	15	15
Proportion of women in the workforce (Construction Equipment Central Europe SBU)	%	15	15	15
Proportion of women in the workforce (Construction Equipment Nordics SBU)	%	11	14	14
Proportion of women in the workforce (Construction Equipment Eurasia SBU)	%	15	17	18
Proportion of women in the workforce (Construction Equipment Rental SBU)	%	19	20	20
Proportion of women in the workforce (Power Systems SBU)	%	16	16	17
Proportion of women in the workforce (Plant Engineering SBU)	%	19	17	19
Proportion of women in the workforce (Holding)	%	44	40	39

KPI	Unit	2021	2022	2023
Occupational health and safety				
Work-related accidents Group, total	Number	243	231	207
Work-related accidents per 1,000 employees (work-related accident rate)	Number	23.6	23.0	20.7
Fatal accidents at work	Number	0	0	0
Lost Time Injury Frequency Rate	Rate	12.8	12.5	11.3
Days lost Group, total	Number	6,212	5,461	5,776
Lost days per 1,000 employees	Number	602.4	543.9	577.9
Health expenditure	%	96.5	95.5	95.8
Donations & sponsorship				
Donations to third parties	Euro	1,204,354	1,302,559	1,197,047
Benefits to third parties	Euro	912,932	1,210,358	1,673,332
Donations in relation to consolidated total income	%	1.1	1.3	1.2
Environmental Sustainability				
CO₂ emissions				
Scope 1	to CO ₂ e	38,537	36,843	35,709
Scope 2 (location-based)	to CO ₂ e	16,951	15,199	14,762
Scope 2 (market-based)	to CO ₂ e	7,706	6,916	5,463
CO ₂ emissions – Scope 1 & 2 (location-based)	to CO ₂ e	55,488	52,041	50,471
CO ₂ emissions – Scope 1 & 2 (market-based)	to CO ₂ e	46,243	43,759	41,172
CO ₂ emissions – Scope 1 & 2 (market-based) per employee	to CO ₂ e/employee	4.5	4.4	4.1
CO ₂ emissions – Scope 1 & 2 (market-based) per €1 million sales	to CO ₂ e/€ million	12.5	11.4	10.5

⁴⁷ Including Zeppelin Lab GmbH, klickrent GmbH and klickparts GmbH; as of: 12/31/2023

KPI	Unit	2021	2022	2023
Energy				
Consumption of natural/liquid/propane gas	MWh	43,541	36,276	34,244
District/local heating consumption	MWh	9,405	10,189	10,165
Heating oil consumption	MWh	2,382	2,795	2,574
Diesel consumption (heating)	MWh	0	5	136
Total heat consumption	MWh	55,328	49,265	47,119
Electricity consumption	MWh	N/A	30,765	28,845
Electricity consumption (fleet)	MWh	N/A	N/A	602
Total power consumption	MWh	32,154	30,765	29,447
Diesel consumption (fleet)	MWh	98,732	98,065	96,645
Diesel consumption (other)	MWh	1,105	616	1,258
Gasoline consumption	MWh	9,665	9,613	7,694
Consumption of HVO (hydrogenated vegetable oil)	MWh	0	0	9
Ethanol consumption	MWh	0	0	59
CNG	MWh	0	0	31
Total fuel consumption	MWh	109,502	108,294	105,696
Consumption of renewable energies	MWh	783	883	1,486
Total energy consumption	MWh	197,767	189,207	183,748
Energy consumption per employee (FTE)	MWh/MA	19.2	18.8	18.4
Energy consumption per €1 million sales	MWh/€ million	53.5	49.3	46.7
Energy consumption (excluding mobility)	MWh	N/A	81,529	77,314
Energy consumption (excluding mobility) per €1 million sales	MWh/€ million	N/A	21.2	19.7

KPI	Unit	2021	2022	2023
Water and waste				
Total water consumption	m ³	138,438	148,894	133,640
of which fresh water	m ³	137,425	147,708	131,938
Water consumption from regions with water stress	m ³	23,985	22,132	20,801
Waste volumes	t	15,597	14,754	14,213
of which hazardous waste	t	6,423	5,869	5,553

About this publication

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We are neither obliged nor willing to participate in dispute
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Website of the European Commission for online dispute
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