



Zeppelin Group

# Sustainability Report

## 2022



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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,

Despite the current challenges, especially the war against Ukraine and its impact, the difficult political conditions in some markets, a highly dynamic pricing environment, and ongoing supply bottlenecks for manufacturing partners and suppliers, the Zeppelin Group can look back on a successful 2022 fiscal year.

Corporate social responsibility is an integral part of our corporate strategy. We see sustainable action as a basic prerequisite for ensuring our long-term business success and maintaining and expanding our competitiveness. We also make a valuable contribution to climate and environmental protection and assume social responsibility for maintaining and expanding our attractiveness as an employer.

The general energy renovation of various branches is an ongoing effort to allow us to achieve our goal of being a carbon-neutral company in ongoing business operations by 2030. By 2030, all owned properties will be converted to carbon-neutral operations and, in the case of rented locations, a decision will be made on the measures required to ensure our target is achieved. In addition, we are driving forward the installation of PV systems, are increasingly relying on green electricity, and are initiating measures to reduce our water and energy consumption. To avoid possible supply bottlenecks in the context of a gas shortage, Zeppelin also launched the Group-wide energy-saving campaign "Be Sustainable. Save sustainable", which was supplemented with a Europe-wide gas emergency plan to safeguard the energy and heating supply of our site network.



This “Sustainability Report 2022” describes Zeppelin’s sustainability strategy and developments in the 2022 fiscal year. The focus here is on the progress we have made in achieving the goals we defined in the main fields of action.

On behalf of the Group Management Board



**Peter Gerstmann**

Chairman of the Management Board of Zeppelin GmbH



**Christian Dummler**

Managing Director/CFO of Zeppelin GmbH

## 2 CSR progress

Objective	Development	State
<b>Economy</b>		
Maintaining a corporate culture in which the Group naturally complies with legal and ethical obligations. Compliance violations are avoided through targeted information and training – embedded in Zeppelin’s corporate culture.	Slight increase in confirmed compliance violations, but with a high resolution rate.	■
High training rate in the area of compliance: above 80%	Compliance training must be completed by every employee every two years. The high training rate could thus be maintained.	■
Avoidance of data protection breaches through information and training	The data protection training was rolled out in 2021. In 2022, a total of 68% of employees completed the training.	■
Sustainable corporate development	In 2022, Creditreform Rating AG, one of the leading rating agencies in Europe, once again certified that Zeppelin GmbH had a high creditworthiness (overall rating A-).	■
Employees’ knowledge and innovativeness are used for ongoing improvement and optimization.	Implementation of the Z IDEA campaign “Sustainable Partners. Sustainable success.” with a total of more than 60 newly submitted ideas from all SBUs. The number of submitted and awarded ideas in 2022 was down compared with previous years. Due to the war in Ukraine, employees of the companies Zeppelin Ukraine, Zeppelin Russia, and Zeppelin Power Systems Russia were not included in the system.	■
Training employees and managers in the Integrated Management System and CSR	The “Integrated Management System” e-learning course was successfully completed by 55% of employees in Germany	■
Collaboration with qualified suppliers	Annual assessment of the degree to which the criteria set have been met. Further expansion of processes within the strategic business units.	■
Identifying possible risks, in particular in relation to human rights abuses	Further specification of the processes in preparation for the requirements of the German Supply Chain Due Diligence Act	■

Objective	Development	State
<b>Society</b>		
Maintaining the average length of service at a level of at least 9.3 years	Length of service remained stable in 2022 (2022: 9.7 years).	■
Maintaining the voluntary resignation rate at a maximum of 5% by 2025	Due to social and economic trends and challenges as well as the war-related crisis situation in Ukraine, Belarus, and Russia, the voluntary resignation rate increased to 7.4% in 2022.	■
Increasing the proportion of women to at least 20% by 2025	Another increase in the proportion of women compared with the previous year (2021: 17%, 2022: 18%).	■
Reducing work-related injuries by 10% per year by 2025	The reduction of the work-related accident rate by 10% per year has not been achieved (reduction compared with the previous year: 8%).	■
Reducing the days lost as a result of injuries by 10% per year by 2025	The target of an annual reduction of 10% in days lost as a result of injuries was achieved in 2022 (2022: -12%) and was therefore at a similar level to 2020.	■
Increasing the health rate to at least 97% by 2025	Despite the COVID-19 pandemic, the employee health rate was maintained at a very good level in 2022 (2022: 95.5%).	■
Allocating 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 annually at a minimum of 0.5 – 1%	Zeppelin achieved its target with donations of around EUR 1.3 million in the 2022 fiscal year. This corresponds to a ratio of 1.3%.	■

Objective	Development	State
<b>Environment</b>		
CO <sub>2</sub> neutrality in ongoing business operations by 2030	CO <sub>2</sub> emissions within business operations (Scope 1 & 2) were further reduced due to various energy saving measures and by means of building renovations and the expansion of renewable energies (2022: 43,674 t CO <sub>2</sub> e; - 5.5% compared with the previous year).	■
Reducing electricity and heat consumption by 1% annually between 2021 and 2025	The energy savings goal was achieved (2022: -7.6%) thanks to the versatile measures taken and the energy saving campaign.	■
Reducing fresh water consumption by 30% by 2030 (base year: 2021)	In 2022, absolute water consumption rose by 6.8% in Industrial Services due to increased demand for cooling. However, a significant decline is expected in the coming years due to technical conversion. In addition, water consumption was reduced in water stress areas.	■
Greatest possible resource efficiency through prevention and reduction of waste	The total amount of waste was reduced by 4.2% compared with the previous year. By participating in World Cleanup Day, employees were made aware of the issue of the circular economy.	■



# 3 Presentation of the Zeppelin Group

GRI 2-1, 2-6

## 3.1 Company profile

The Zeppelin Group finished a successful 2022 fiscal year, with sales of EUR 3.8 billion (2021: EUR 3.7 billion) and earnings before taxes of EUR 135 million (2021: EUR 160 million), even though the Russian war of aggression against Ukraine had a negative impact on the result. Contributing to the Group’s performance on average in 2022 were a little over 10,000 employees at over 340 sites.

The Zeppelin Group is operationally and strategically managed in six strategic business units (SBUs). This organizational structure ensures its ability to focus on individual markets, customer groups, and product segments while managing activities across multiple countries and companies. The SBUs are divided into Construction Equipment Central Europe (“CE”), Construction Equipment Eurasia, Construction Equipment Nordics, Rental, Power Systems, and Plant Engineering. The structure supports the bundling of operations and the targeted orientation of the business models towards various markets and customers. The Group’s management holding company is Zeppelin GmbH. The Group IT Services Strategic Management Center (SMC) bundles all resources from the IT and digitalization divisions and supports the individual SBUs in a cross-functional manner. In terms of organization, it is integrated into Zeppelin GmbH as a holding company. The company is legally domiciled in Friedrichshafen, with its headquarters located in Garching near Munich.

**More information on the organizational and management structure can be found in the [Annual Report 2022](#). The report also lists the extensive range of products and services offered by the individual SBUs, and provides a detailed description of economic development.**

### Overview of the strategic business units of Zeppelin GmbH



**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**

## 3.2 The Group Management Board and the Supervisory Board

GRI 2-9, 2-11

Zeppelin Group Management Board (from left to right: Peter Gerstmann, Christian Dummler and Alexandra Mebus, Michael Heidemann)



Peter Gerstmann has been Chairman of the Management Board of Zeppelin GmbH since 2010 and is responsible for Group Development, Group IT and Innovation, Auditing, and Group Communications, as well as for the Plant Engineering and Construction Equipment Eurasia SBUs. Michael Heidemann has been Deputy Chairman of the Management Board since 2010 and is responsible for Sales, Marketing, Service and the Construction Equipment Central Europe, Construction Equipment Nordics, and Rental strategic business units. Christian Dummmler 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 CSR division. Alexandra Mebus, Labor Director and Member of the Management Board, is responsible for Compliance and Data Protection, Human Resources, HR Development, and Diversity.

Fred Cordes was appointed Managing Director of Zeppelin GmbH, effective January 1, 2023. He succeeds Michael Heidemann, Vice Chairman of the Management Board of Zeppelin GmbH, who will be entering his well-deserved retirement on June 30, 2023 after more than 31 years of service at Zeppelin. To ensure a seamless transition, Michael Heidemann will accompany and support Fred Cordes in handing over and familiarizing himself with the new responsibilities to the middle of 2023. In this context, the divisions will be allocated within the Management Board on January 1, 2023 and explained in next year's "Sustainability Report 2023". 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. Andreas Brand, Mayor of Friedrichshafen, has been Chairman since June 2009.

In the 2022 fiscal year, the 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.

Fred Cordes, Managing Director (COO) since 2023



### 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. This year 2022 has shown in a special way how Zeppelin employees put these values into practice, while also preserving the tradition represented by Graf von Zeppelin into the present, and carrying it forward into the future. That Zeppelin system of values is underpinned by the integrity and excellence of our employees.



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

As a foundation-owned company, Zeppelin is committed to the infinity principle and assumes responsibility in the areas of the economy, environment and society. Sustainable corporate governance is naturally a prerequisite for Zeppelin if we are to make an authentic long-term contribution to the environment and to society as a sustainable and economically successful company, based on the strength of our corporate culture.

Sustainability is fundamental to future-proofing Zeppelin and is anchored both the corporate strategy and corporate values. Stakeholder concerns are taken into account when defining 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 Group-wide **GPS strategy** are continuous growth (**G**rowth), outstanding performance (**P**erformance) and sustainable stability (**S**tability):

**Growth** aims at the continuous growth of the Group. Based on established business models and new, forward-looking business areas, the company's range of services is constantly being expanded in order to ensure its competitiveness.

**Performance** stands for the outstanding achievements of Zeppelin employees. They recognize the customers' needs, use their skills in a targeted way, and offer perfectly tailored, efficient solutions.

**Stability** aims to ensure the long-term stability of the Group. Weighing up opportunities and risks during decision-making processes creates an environment that offers long-term stability, thereby ensuring the

company's future competitiveness. 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 topics into the corporate strategy, focus topics from the CSR area were included in the Zeppelin Group's annual Call for Strategy from 2020 to 2022. The Call for Strategy 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. In 2022, the supply chain and supplier management was analyzed with the aim of ensuring sustainable procurement. With regard to the supply chain due diligence law ("Lieferkettensorgfaltspflichtengesetz") adopted in summer 2021 in the Federal Republic of Germany and the expected regulation by the European Union, appropriate

preparatory measures have already been initiated. These will be gradually expanded and progressed (see section on Supplier Management).

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. The chart on the bottom right shows the main impact of Zeppelin's sustainability goals on the SDGs.

### CSR Week

Conveying knowledge, promoting discussion and creating a deeper understanding of corporate social responsibility – these were the goals of the first Zeppelin CSR week, which took place January 24-27, 2022, in virtual form. Over 1,500 participants worldwide watched the four online events in German, English, Russian and Czech. At Zeppelin there is a very profound commitment to corporate social responsibility – as was impressively demonstrated during CSR Week. In addition to the presentations, a CSR quiz was organized for employees, with the winners able to select a charitable organization to which Zeppelin then donated EUR 1,000.



### Key topics of the sustainability strategy in recent years in the Group Call for Strategy



### Link between Zeppelin's sustainability goals and measures, and the SDGs



## 4.2 Stakeholder & 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.

### Key stakeholders of the Zeppelin Group and forms of dialog

Stakeholders	Exchange
<b>Internal</b>	
Works Council	Involvement in specific projects such as New Work
Employees	Employee surveys, town hall meetings, internal information platform – ZNET, Z IDEA ideas management, CSR newsletter
Subsidiaries	Town hall meetings, internal information platform – ZNET, CSR newsletter
Strategic Business Units	Steering Committee (CSR/LksG), Sharepoint platform – ZNET, CSR newsletter
<b>Shareholders/bodies</b>	
Supervisory Board	Monthly reporting, three regular Supervisory Board meetings per year
Board of Trustees of the Zeppelin Foundation	Quarterly reporting by the Chairman of the Management Board
Friedrichshafen Municipal Council as company representative	Annual reporting on the annual financial statements Special reporting on topics relevant to shareholders
<b>External</b>	
Customers	Customer visits, customer inquiries, customer surveys, trade fairs, and social media communication
Caterpillar	Work with Caterpillar to create customized solutions, participate in training, address product and market requirements
Suppliers	Exchange and cooperation with suppliers
Government & authorities	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 regular dialog
Associations	Active work in associations (see the section Memberships in associations and initiatives)
Science	Projects with universities, lectures, seminars, discussion panels, and founder of the Zeppelin University Foundation

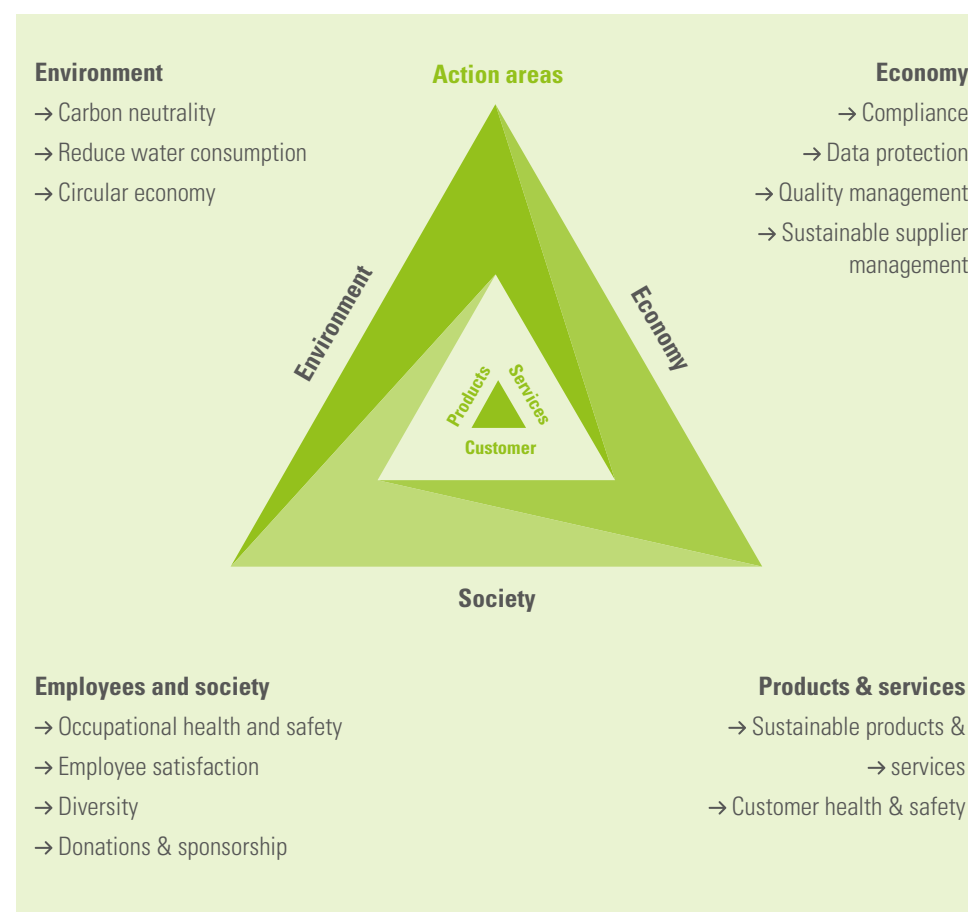
In the summer of 2020, a comprehensive stakeholder survey was conducted on the topic of “Sustainability at Zeppelin”; all Zeppelin’s employees and around 230 external business partners were invited to participate. The results of the survey were presented in detail in the Sustainability Report for 2020 and 2021. A further comprehensive employee survey is planned for 2023, which among other things aims to evaluate the effectiveness of sustainability management at Zeppelin.

Based on the stakeholder surveys and SWOT analyses carried out, the materiality matrix was created for the first time in 2016 and continually updated and revised over the years. The analysis of the key topics took into account both the recommendations of the GRI Standards 2021 and the requirements of the future Corporate Sustainability Reporting Directive. The topics were developed in two stages. Initially, the CSR managers of the strategic business units evaluated the topics by means of a scoring template. The CSR managers discussed and evaluated these results together with the representatives of the specialist departments in a subsequent workshop.

Three different perspectives were evaluated. Firstly, actual and potential impacts on the economy, the environment and people, including the impact on human rights, were considered in the context of our activities and business relationships. The severity (including the extent, scope and irreversibility) and probability of occurrence were crucial factors in the analysis. The evaluation was based on internal and external audit results, benchmarking, internal mechanisms of complaint procedures, and the expert knowledge of the specialist departments. Secondly, the assessment looked at the financial impact on the company and the relevance for stakeholders. The classification of risk management was used as a basis for the financial evaluation (see Annual Report 2022, p. 94 et seq.). The stakeholder relevance resulted from the aforementioned employee opinion survey of 2020. If a sustainability issue represented a high actual and potential impact or significant financial impact for the company, the issue was classified as material.

Compared with the previous year, diversity and customer health and safety were therefore defined as additional key topics. Energy efficiency was linked to the topic of carbon neutrality on account of prioritization and selection. Waste is now part of the higher-level topic of the circular economy.

**Material sustainability topics at Zeppelin**





### 4.3 Risk management

GRI 3-3, 2-16

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 strategic business units 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 a 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 RMS. These include the GRC tool "OneTrust" (currently used for IT security and data protection), 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 from 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 94 of the Annual Report 2022.



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 meetings of the Group Management Board and the Executive Board. 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. To be able to assess the resulting risks and opportunities in more concrete terms, a workshop was held in 2022 with the representatives of specialist units and CSR managers (for a more detailed description, see the Stakeholder and Materiality Analysis section). **After close examination, no serious negative effects were identified.** 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 & 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 risks from the areas of corruption, export controls, and data protection.

### Data security

The cyber threat situation, which is rated as “very high” worldwide, has been seen as exacerbated since Russia’s attack on Ukraine – especially for Germany. Overall, the situation continued to escalate through-

out 2022: The threat in the cyber space is therefore higher than ever before. Ensuring the availability, integrity, and confidentiality of data is an essential requirement for Zeppelin. Likewise, the resilience of the systems used, and products provided against the described threats is also essential. For this reason, technical and organizational measures are taken in the context of a Group-wide information security management system and its risk management in order to counteract risks in a targeted manner through detection, response, and prevention. For example, the IT operations of the Eurasia region have been restructured in order to be able to react as flexibly as possible to future changes and threats. Furthermore, the development of a Group-wide IT Service Continuity Management (ITSCM) was accelerated. The introduction of the ITSCM ensures the availability, integrity, and confidentiality of Zeppelin’s time-critical and business-critical business processes in the event of cyber attacks and IT crisis situations.

The human factor continues to play a key role in many attacks. For this reason, awareness training and regularly simulated phishing attacks are carried out for all Group employees. These campaigns raise employees’ 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. These and other measures of integrated information security management form the basis for appropriate protection against current threats in the cyber environment. But in the future, we can expect continued strong growth in the dynamics of cyber risks, mainly driven by advancing digitalization and an increase in cyber crime. Despite the implementation and improvement of these preventive security measures, risks cannot be ruled out in this volatile environment.

### 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 will also be 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 must 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.** For these reasons, sustainable supplier management is of particular importance.

### 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 heterogeneous product diversity of the company, there are different approaches within the strategic business units.

### Employee satisfaction and diversity

Corporate activities in the area of employee satisfaction and diversity relate less to risks for the environment and society, and more to opportunities and advantages arising from the discussion of the topic of diversity, equal opportunities, and inclusion. In this way, inclusive measures and concepts, the promotion of a **work-life balance,** and the establishment of an appreciative and **non-discriminatory corporate culture** contribute to the sustained safeguarding of our corporate success. These initiatives in turn support the handling of social changes such as demographic change and are able to counteract the shortage of skilled workers. A detailed list of our measures and initiatives can be found in the corresponding section.

### Occupational health and safety

At Zeppelin, the health and safety of employees is 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 and sponsoring activities

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 Financial Engagement 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 protection

Physical climate risks can arise from the direct consequences of climate change, such as extreme weather events or flooding. Long-term changes, such as the increase in average temperatures, and indirect risks, such as restricted functionality of international supply chains are also considered. At the same time, physical climate risks offer opportunities for Zeppelin as these risks must be countered by appropriate



measures such as the expansion of flood protection systems, irrigation and drainage systems, and the energy-efficient refurbishment of buildings. Transitory climate risks can be associated with the transition to an environmentally friendly economy. Zeppelin has identified regulatory changes, for example due to new or stricter laws and requirements, as well as higher operating and investment costs, for example due to necessary technical retrofitting of plant and equipment or the energy-efficient refurbishment of existing properties, as risks and areas for action. Furthermore, it is expected that current sales markets will change because of the transformation of the economy, and that the demand for products that use fossil energy sources will decrease in the long term, and the need for environmentally friendly, low-emission products and services will rise significantly. **As a sustainable company, Zeppelin reacts in good time to the changes that the transformation to a more environmentally friendly economy entails. Zeppelin also anticipates opportunities that arise as a result, such as tapping into new sales markets, improving competitiveness by changing the product and services portfolio, and increased resilience.** 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 in many ways, e.g. through significant 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 also developing a variety of alternative energy solutions to support a lower-carbon future, including battery-powered construction equipment.

Zeppelin counteracts potential climate risks at an early stage through sustainable corporate governance and its voluntary commitment to achieving its own sustainability goals. In the coming years, further climate risks and possible fields of action will be identified and prioritized, and measures to reduce risks and identify opportunities will be defined as required.

## 4.4 Human rights due diligence

GRI 2-23, 2-24, 2-25

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.<sup>1</sup> 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.

<sup>1</sup> 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, 2022.

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.

## 4.5 Sustainability organization

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

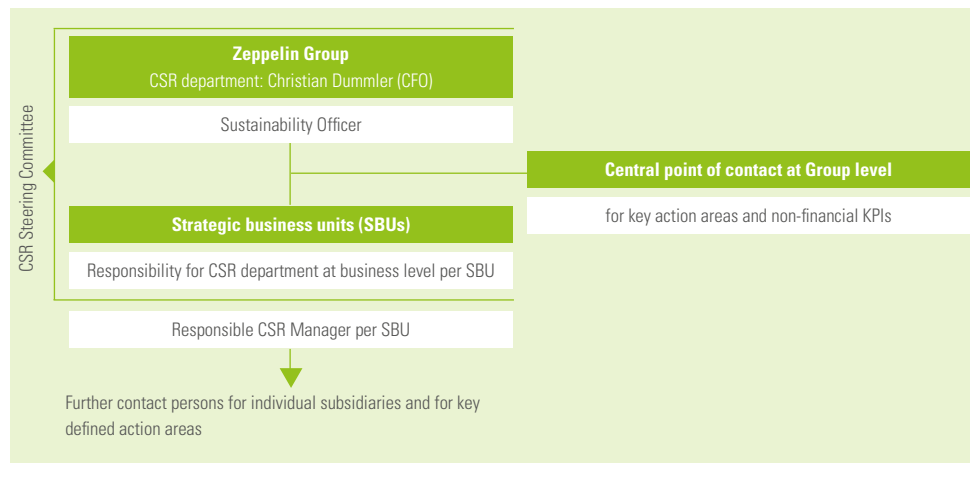
The Group Management Board and the Chairman have overall responsibility for sustainability. A separate CSR department in the Group Management Board, under the responsibility of CFO Christian Dummmler, promotes the anchoring of sustainability topics and manages and coordinates overall development across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

The Sustainability Officer of the Zeppelin Group who reports each month directly to and is appointed by the Group Management 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.

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. The departmental responsibility for CSR is defined at the management level within each SBU, and responsible CSR managers are appointed at the working level. These CSR managers regularly report to the Sustainability Officer on the progress of sustainability management within their SBUs. 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 Director responsible for CSR at SBU level, and the central CSR office. The Supervisory Board is involved in significant decisions and is kept informed by the Group Management Board. Example presentations include the adopted modernization strategy for owned buildings (see section on carbon neutrality) and the overview of CSR investments made. At the end of 2022, regular reporting for the Supervisory Board was also started. In the future, a report on CSR will be presented three times a year.

**CSR organization in the Zeppelin Group**



**4.6 Certification and awards**

Numerous certifications and awards 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**

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 Integrated Management System was certified for all German Group companies for the first time in 2019. The recertification took place in 2022 as part of the integrated management system. This successfully confirmed our energy management system (ISO 50001) in Germany and in the national subsidiaries in the Czech Republic, Austria, Poland, the Slovak Republic, Sweden, and Denmark. An external audit also attested to Zeppelin's high management system standards in Germany in the areas of environmental management (ISO 14001), occupational health and safety (ISO 45001), and quality management (ISO 9001). The certificates can be viewed on the Zeppelin website in the sustainability section.

**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 second time. The distinction includes Management Holding Zeppelin GmbH and the German companies of the Construction Equipment Central Europe, Rental, Power Systems, and Plant Engineering strategic business units, as well as the Group IT Services strategic management center. The numerous initiatives and measures provided were positively incorporated into the assessment.

### Successful Creditreform rating

Creditreform Rating AG regularly assesses the economic situation of the Zeppelin Group and delivers a rating classification, i.e. it assesses the creditworthiness of the company. 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 9, 2022.

### 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 Systems GmbH and Zeppelin Österreich GmbH achieved a Gold rating, Zeppelin Sverige AB, Zeppelin Power Systems GmbH, and Zeppelin Rental GmbH were awarded the Silver Seal, and Zeppelin Baumaschinen GmbH both 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 external initiatives and associations:

### 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.

### 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 promote equality and actively advance 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.







**FINANCIAL SUSTAINABILITY**

# Success through Sustainability

## 5 Economic sustainability

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

### 5.1 Compliance

#### A self-evident part of management and corporate culture

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

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 at least detect compliance violations and to create 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 our partners and the public at large. In connection with Zeppelin's partners, i.e. suppliers, service providers, and subcontractors, Zeppelin 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 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 is also available.

There is also an online whistleblower system 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 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

- 1 **Progress on objective 1**
  - Maintaining a corporate culture in which the Group naturally complies with legal and ethical obligations
  - Avoid compliance transgressions through targeted information provision and training

#### Compliance transgressions summary

Compliance violations	Unit	2020	2021	2022
Reported transgressions	Number	26	23	25
of which confirmed transgressions	Number	16	11	15
of which resolved transgressions	Number	14	6	14
<b>Compliance resolution rate</b>	<b>%</b>	<b>88</b>	<b>55</b>	<b>93</b>

#### Overview of fines, penalties or forfeiture imposed by final judgment

Fines & corruption cases	Unit	2020	2021	2022
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

One objective in the area of compliance is to maintain a corporate culture in which compliance with legal and ethical obligations is a matter of course. Compliance transgressions are to be largely avoided through targeted information provision and regular training of employees and managers.

All reports were checked immediately, confirmed compliance violations were dealt with and essentially corrected by the Compliance organization in cooperation with the affected specialist units, i.e. Internal Audit and Legal.<sup>2</sup> Violations from 2022 that have not yet been remedied are still being dealt with. 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 or lead to any significant need for adjustment with regard to processes or rules. In recent years, there have been no known cases of non-compliance with laws resulting in fines, penalties or forfeiture.<sup>3</sup> Over the next few years, the aim is to create the best possible transparency in compliance reporting and to further avoid compliance violations.

**2 Progress on objective 2**

→ High training rate in the area of compliance

→ Number of employees with valid compliance training greater than 80%

A corresponding corporate culture of compliance can only be nurtured if all employees have the necessary knowledge and are able to develop the necessary and appropriate awareness of compliance. Zeppelin regularly informs its employees about compliance challenges and risks and demonstrates desired conduct in line with Zeppelin's values through training courses. The aim is for the proportion of employees with valid compliance training to be greater than 80% over a rolling period of four years.

<sup>2</sup> Unresolved cases were still in resolution at the time of reporting.

<sup>3</sup> Forfeiture is a measure for asset recovery provided for in criminal law.

The compliance training concept at Zeppelin consists of workshops for Management and employees in which the challenges of compliance in terms of management responsibility and the understanding of values within the Zeppelin corporate culture are conveyed. 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.

**Participation rate for the Compliance basic training**

Compliance basic training	Unit	Pilot 2020	2021	2022
Total number of participants	Number	145	7,977	8,285
Participants among the Management Board	Number	2	40	58
Total participation rate	%	96	75.58	80.51

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. It is a mandatory program component for all employees. From 2023, another module on “Dealing with business partners” will be available. The module focuses on corruption prevention for those working in purchasing, sales & marketing, prevention of money laundering and terrorist financing, export controls and dealing with embargoes, and is aimed at selected exposed employee groups.

Since the introduction of the new e-learning system, Zeppelin has been continuously working on further improving the participation rate and implementing suitable measures to achieve this; these will be presented in the next section.

**Measures implemented in 2022 from Compliance**

The aim of the Compliance organization is to make the newly introduced e-learning module available to as many employees as possible as a simple introduction to compliance. Therefore, it was important to offer a learning program with a wide range of languages. Both e-learning modules are available in the

company languages of German, English, French, Italian, Polish, Portuguese, Russian, Slovak, Czech, and Ukrainian. The module has also been available in Mandarin Chinese since 2022. The training modules are also available in a responsive design and can therefore be taken on all mobile devices.

## 5.2 Data protection

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

GRI 3-3, 418-1

The task of data protection is to protect individual rights and in particular, the privacy of each person. For this purpose, lawmakers have extensively regulated the processing of personal data, and granted rights to each data subject 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. 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

- 1 **Progress on objective 1**
  - Avoidance of data protection breaches through information and training
  - Number of identified data breaches pursuant to Article 33 of the GDPR, of which the number of incidents reported by supervisory authorities

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.

#### Participation rate in data protection training

Data Protection basic training	Unit	Roll-out 2021	2022
Total number of participants	Number	4,301	7,080
Participants among the Management Board <sup>4</sup>	Number	N/A	N/A
Total participation rate	%	40.75	68.80

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 on a central data protection page on the Intranet.

<sup>4</sup> The evaluation at function level will only be possible from 2023.

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.

**Summary of data protection complaints**

Data protection complaints	Unit	2020	2021	2022
Reported data protection complaints (in accordance with Article 33 GDPR)	Number	12	10	56
of which breaches reported to supervisory authorities	Number	0	0	6
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	N/A	28

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. The significantly increased numbers in 2022 show that the new reporting channel and the adapted processes are well received by employees. Furthermore, 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.

**Data protection measures**

The Zeppelin Group is continuously working on refining and improving its data protection management system (DMS). As already described, data protection management software was successfully introduced

in December 2021, which brought with it numerous new processes. In 2022, employees were continuously informed about this and trained in its use. In addition, a report was created on the most important data protection key figures, the main component of which is the information obtained from the data protection management software.

**5.3 Quality management**

**High-quality products and services from Zeppelin**

GRI 3-3

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

The current objectives focus on sustainable corporate development, which ensures long-term economic success and competitiveness. In addition, the aim is to ensure the creation of an innovative corporate environment in which employees can contribute to continuous improvement. To this end, a high level of competence must also be ensured for managers and employees. The latter is measured by the participation rate in the central e-learning modules, which contain a variety of focus areas each year.

#### 1 Progress on objective 1 → Sustainable corporate development

As part of an independent corporate issuer rating, Creditreform Rating AG, one of Europe’s leading rating agencies, has ranked Zeppelin GmbH’s creditworthiness with an overall rating of A- and the current outlook as “stable”. With this very good corporate rating, Zeppelin has repeatedly been certified as having a high creditworthiness and low default risk. The main reason for the rating is the impact of the Russian war of aggression against Ukraine, which has led to a negative effect on sales and earnings as a result of sanctions imposed on Russia by the West, as well as subsequent counter-reactions. In the short to medium term, a corresponding negative impact on earnings and a simultaneous increase in investment and capital requirements can be assumed. This is due to the significant share of sales and earnings from Russia and Ukraine as well as the war-related adjustments to the strategic objectives and infrastructure.

#### 2 Progress on objective 2 → Using the knowledge and innovativeness of employees for ongoing improvement and optimization → Number of ideas implemented

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. 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 2022, a total of EUR 11,600 was paid to Zeppelin idea generators in bonuses.

Based on the positively evaluated and award-winning ideas from the Z IDEA scheme, knowledge and innovativeness are evaluated for continuous improvement. In 2022, around 12% of the submitted ideas were honored with a reward. Due to the war in Ukraine, employees of the companies Zeppelin Ukraine, Zeppelin Russia, and Zeppelin Power Systems Russia were not included. The company Zeppelin Belarus was also divested and deconsolidated. As a result, the number of submitted and awarded ideas in 2022 was down compared with previous years. The aim is to continue to build on the high level of award-winning ideas or to expand these even further.

#### Summary of ideas submitted to Z IDEA and rewarded

SBU	Ideas submitted			Rewarded ideas		
	2020	2021	2022	2020	2021	2022
Construction Equipment Central Europe SBU	136	144	106	23	31	26
Construction Equipment Eurasia SBU <sup>5</sup>	78	154	7	17	43	2
Rental SBU	85	128	117	9	14	14
Power Systems SBU	39	56	63	8	9	2
Plant Engineering SBU	144	127	119	15	19	8
Zeppelin GmbH	13	13	22	0	3	0
<b>Total</b>	<b>495</b>	<b>622</b>	<b>434</b>	<b>72</b>	<b>119</b>	<b>52</b>

<sup>5</sup> Zeppelin Ukraine, Zeppelin Russia, and Zeppelin Power Systems Russia have not had access to the system since May 2022. The corresponding ideas from the countries are therefore not shown in the system for 2022.

Z IDEA



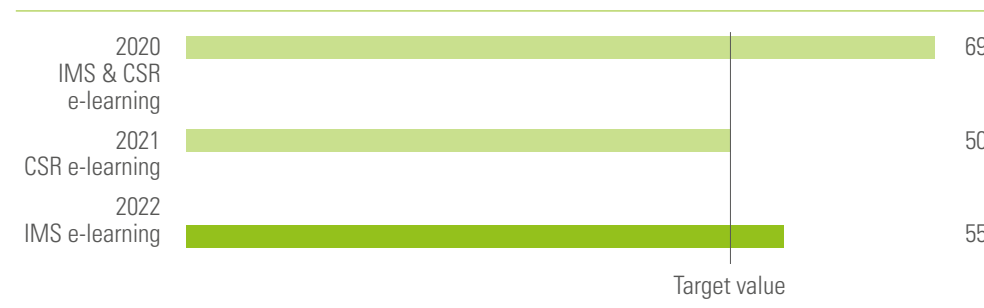
In 2022, a campaign was launched as part of Ideas Management to further strengthen the idea of sustainability at Zeppelin and get closer to the goal of becoming a carbon-neutral company by 2030. The “Sustainable partners. Sustainable success.” campaign received a total of more than 60 newly submitted ideas from all SBUs. The campaign focused on innovative ideas and best practices in order to also focus on the topic of corporate social responsibility in cooperation with our customers. The ideas submitted highlight creative possibilities for saving energy, CO<sub>2</sub> emissions, and waste. These include the further promotion of digitalization through digital filing and electronic document management systems, as well as training on the sustainable handling and operation of Caterpillar construction equipment.

**3 Progress on objective 3**

- Training employees and managers in the Integrated Management System and CSR
- High participation rate in central e-learning system (above 50%)

The first e-learning course on the Integrated Management System 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 all national borders and to provide concrete tips on the integration of sustainability into everyday life. In the following year, an e-learning course with a focus on the IMS was initiated again within Germany. This was created using a new e-learning platform, which enables Zeppelin to automate and simplify data preparation. The following figure shows the participation rate in the e-learning courses in Germany in recent years: The target of a participation rate of more than 50% was achieved every year. Due to the introduction of the new platform, the IMS e-learning course was only launched at the end of 2022. The evaluation therefore shows the participation rate through to the end of the year, although the training will continue in 2023.

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



**Further measures in the area of quality management**

The introduction of a new process management program contributes to the further development of quality management. The program can map, analyze, and automate strategic business processes in order to monitor and improve process changes 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. In the future, the system will be extended to all strategic business processes of the Zeppelin Group.



The Plant Engineering SBU has 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. In the future, the system will serve as a comprehensive knowledge management tool for all employees. It will be launched at the beginning of 2023 and then rolled out to other companies.

## 5.4 Supplier management

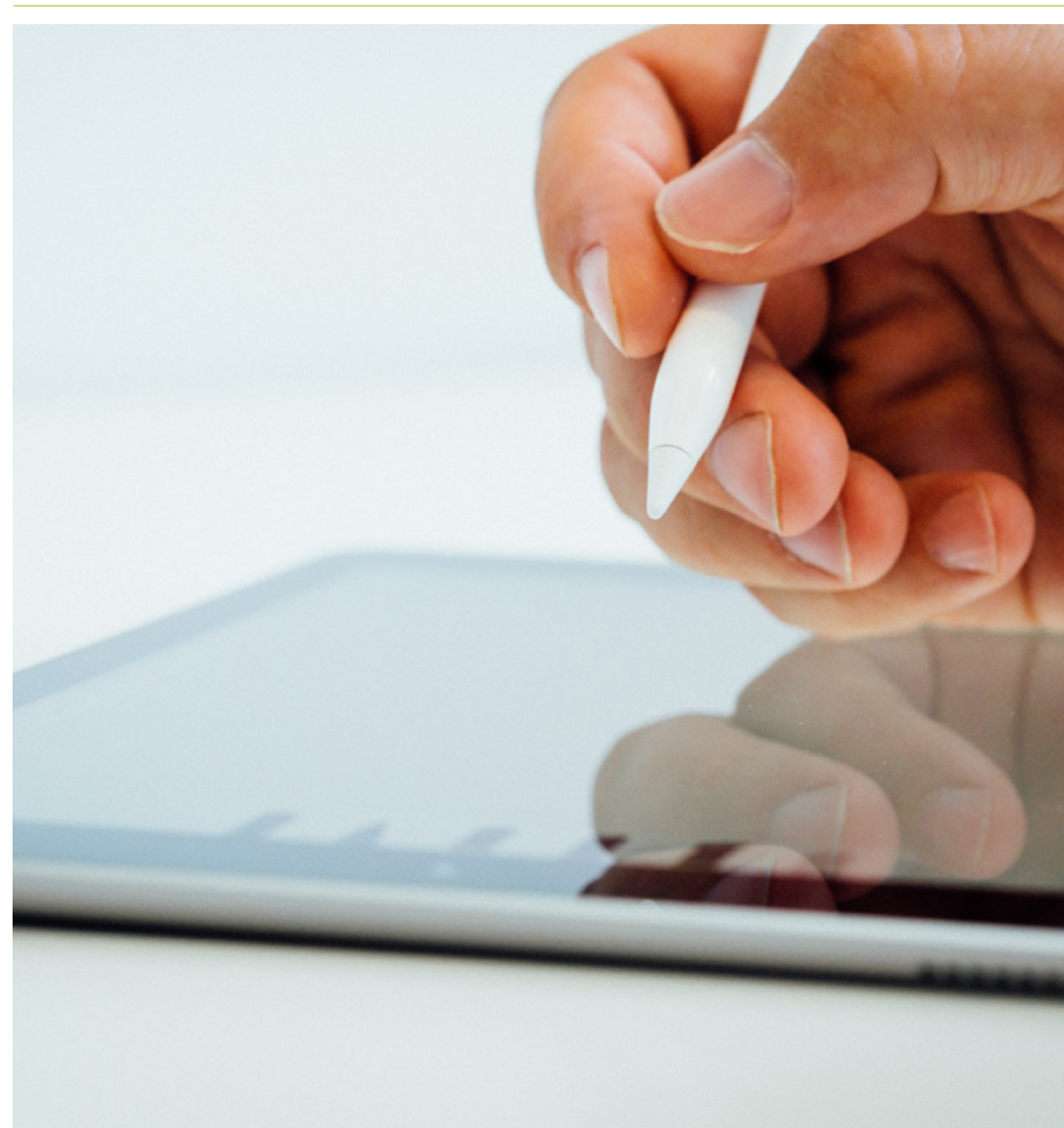
GRI 2-6, 2-23, 2-24, 2-25, 3-3, 308-1, 414-1

### 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 concept<sup>6</sup> that has been established since 2010 is being maintained. In this system, the lead buyer is responsible for the central processing of one or

<sup>6</sup> The following companies have agreed to follow the Lead Buyer Concept: Zeppelin GmbH, Zeppelin Baumaschinen GmbH, Zeppelin Rental GmbH, Zeppelin Power Systems GmbH, 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.



**Supplier Code of Conduct**



more procurement topics. They are supported by a co-buyer from another Zeppelin company. The Group Procurement Guideline defines the framework and regulates responsibilities.

As a foundation-owned company, environmentally and socially responsible corporate governance is a matter of course. Our self-declared aim is to continuously optimize our business activities, products and services in terms of sustainability. We also expect this holistic approach from our suppliers and service providers. For this reason, Zeppelin has initiated a Supplier Code of Conduct. These guidelines, principles, and requirements are considered the basis for profitable cooperation. **The 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.

**Supply chain description**

At EUR 2,584 million in 2022, the Zeppelin Group’s purchasing volume<sup>7</sup> increased slightly compared with the previous year (2021: EUR 2,527 million). Around half of the procurement volume is attributable to the procurement of merchandise for our business partner Caterpillar Inc., 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. Zeppelin Baumaschinen GmbH focuses on the distribution and service of Caterpillar construction machines and components, Zeppelin Rental GmbH

leases Caterpillar construction equipment and attachments, among other things. Zeppelin Power Systems GmbH 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 Inc. is primarily attributable to suppliers in the technical product field. **Zeppelin Rental GmbH procures construction machines, conveyor technology, construction equipment, and heating and air conditioning technology for machine and equipment rental.** In addition, Zeppelin Rental GmbH’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 Zeppelin Systems GmbH, as well as components and plant services for Zeppelin Power Systems GmbH. 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 Inc., 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.

<sup>8</sup> This includes the cost of materials included in the cost of sales.

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.

#### 1 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.

#### 2 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. If it is not possible to implement satisfactory remedial measures, the business relationship can ultimately be terminated.** Violations of the Zeppelin Code of Conduct can also lead to termination of the cooperation. The risk assessment described above was made more concrete in 2022 and standardized for all companies. **Implementation is set to take place from 2023.** The procedure has been laid down in a Group policy. Particular attention is paid to implementation of the Supply Chain Due Diligence Act of the Federal Republic of Germany adopted in 2021. After creating an overview of the procurement processes and direct suppliers, an initial abstract analysis of industry-specific (specific product groups, industries, etc.) and country-specific (supplier site) risks is created. The second step involves the measurement and prioritization of the identified risks. Based on the criteria such as the supplier's own influences, the hazard potential, own causation and causation of the supplier, an overall assessment of the risks is then carried out according to low, medium, and high priority.

### Measures to intensify sustainable supplier management

To intensify the processes for supplier evaluation and controls and to comply with the requirements of the Supply Chain Due Diligence Act, a corrective action plan was created in 2022. **The measures formulated in the plan are to be rolled out in 2023.** For example, a new procedure for supplier checks was developed, which also defines responsibilities. In addition, a procedural instruction on preventive and remedial measures in the supply chain was created, which includes checklists or action plans for (on site) supplier audits. The future procedure will therefore be described in more detail in the next Sustainability Report.



**PRODUCTS & SERVICES**

**Sustainable Solutions**  
to Increase  
Customer Satisfaction



# 6 Products & services

## 6.1 Sustainable products & services

GRI 3-3

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 growing, sustainable portfolio. Zeppelin thus supports them in achieving their own sustainability goals and in shaping their value creation processes. Zeppelin’s products enable sustainable profitability 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. Zeppelin products meet high safety standards and protect customers and employees.

### bauma 2022

The bauma 2022 trade fair took place in Munich from October 24 to 30. The trending topics at the world’s largest construction machinery trade fair this year included digitalization and sustainability. Alternative drive technologies such as electric motors, fuel cells, and a combination with combustion engines in the form of a hybrid drive took center stage. Under the motto “Let’s do the work”, Zeppelin Baumaschinen GmbH presented its diverse portfolio in Hall B6, consisting of 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. Zeppelin Rental presented the ecoRent rental program for the first time together with Zeppelin Construction Equipment, presenting visitors and customers with innovative and low-emission machines and construction equipment such as an electrically powered eSprinter van, an emission-free LED floodlight mast system, and a chain scissor lift with hybrid drive.



The **Construction Equipment Central Europe, Nordics, and Eurasia SBUs** provided an insight into high-performance equipment for earthmoving, excavation, demolition, recycling, and road construction. Products also included machinery for gardening and landscaping, agriculture, and for 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 completed the product range. The general overhaul of used construction equipment was also presented as a **cost-effective and resource-conserving alternative to buying new**. In this respect, **particular emphasis was placed on all-round care for customers in the construction sector and the building materials industry**, who were offered integrated solutions from seismographic soil analysis to all-inclusive contracts. 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 in Central Europe, Northern Europe, and Eurasia, offered the following services, among others, that contribute to sustainability and business:



### Environmentally friendly alternatives

Zeppelin offers its customers construction machines from its manufacturer partner Caterpillar Inc. such as wheel loaders, which have been awarded the **"Blue Angel"** label and are especially quiet. Mini excavators with combined diesel or electric drive via cable and electric material handlers with cable supply are an economic and environmentally friendly (low-emissions) solution for special applications.

### Construction machines with environmentally friendly engines

Most construction machines from the manufacturer partner Caterpillar Inc. meet the current emissions **level V** and are therefore as environmentally friendly as a modern car diesel engine. 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.

### 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 **saves machine running time, fuel, and wear and tear, and reduces 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 not only has a positive effect on operational readiness, but also on 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

**Preventive replacement** 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.

#### “Certified Rebuild”

These special 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.

#### 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, it can be possible to offer a replacement with an overhauled old part if there is a defect. This saves both costs and raw materials.

#### 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.

The **Zeppelin Power Systems SBU** is a leading provider of drive, propulsion, traction, and energy systems. The company offers highly efficient solutions in the fields of industrial and marine applications, rail vehicles, the oil and gas industry, and power and heat generation. In addition to drive solutions based on Caterpillar diesel, gas and dual-fuel engines, the Zeppelin Power Systems 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 are particularly relevant to sustainability:

### Advanced technologies – ballast water treatment systems

As an official partner of Optimarin, Zeppelin Power Systems 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 Power Systems 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 Power Systems' corporate development team 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.







With customized solutions in the areas of machine and equipment rental, temporary infrastructure and construction logistics, the **Rental SBU** ensures the safe and efficient execution of projects in construction, industry, manual trades, and events. More than 75,000 machines and devices for rent, from the global market leader Caterpillar and other renowned manufacturers, guarantee maximum availability, quality and range. Temporary infrastructure provides needs-based concepts in site and traffic guidance, energy and construction water supply, power generation and air conditioning technology as well as customized modular room solutions: Planning, installation, and ongoing support from a one-stop shop. Through the overarching planning and coordination of all secondary processes on a construction site, construction logistics ensures the framework conditions for smooth processes as well as adherence to deadlines and budgets. The Rental SBU offers a wide range of solutions to help our customers achieve their sustainability goals.

**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.

**Carbon neutrality:** Electrically operated equipment from the ecoRent portfolio already enables carbon-neutral working today. The range includes personnel work platforms, construction machinery, and construction equipment.

**Mobile charging solutions** including innovative battery storage systems, installation and commissioning

**Disposal logistics** for segregated waste separation, maximization of the recycling rate on construction sites, and for cost-by-cause billing

**Traffic telematics solutions** with energy-efficient LED displays for intelligent traffic control for fewer traffic jams and thus reduced CO<sub>2</sub> emissions



Supply of **green electricity** from 100% renewable energy sources with proof of origin for construction sites, production facilities, and properties

**Consulting services** for energy management in accordance with ISO 50001 and for photovoltaic systems

**Construction logistics planning and management** for seamless processes, e.g. to optimize delivery traffic, avoid traffic jams, increase productivity and efficiency, and thus prevent unnecessary use of resources in the construction process

Digital **operation of metering points** to detect costly peak loads in construction site power

The **Plant Engineering SBU** 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. The following is a selection of products and services with a particular focus on sustainability in the Plant Engineering SBU:

**Zero-waste production**

Conveying systems are optimally designed when the conveying task and method are optimally 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.

The Plant Engineering SBU 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 the Plant Engineering SBU and the use of high-quality recycled materials, valuable raw materials such as industrial soot, rubber granulate, and rubber powder can be saved in the future.
- 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 Systems 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 accuracy 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

The Zeppelin Group IT Strategic Management Center (SMC) 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 Zeppelin Digit, 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, 403-7

Zeppelin attaches great importance to the health and safety of its customers and this concern plays a significant role in all strategic business units. Despite the diversity of industries in which Zeppelin operates, there are topics that are of particular relevance for all strategic business units.

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 SBU and Power Systems. 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.

Particular attention is paid to safety when handling our products. Training sessions are therefore provided for customers to ensure that the machines are handled safely. Experienced machine operators work more safely, protect their machines, and use fuel sparingly. At the company's own training center in Kaufbeuren, the basic technology for Caterpillar construction machines can be learned or driver training can be organized within the company. In addition, practical online courses and training in the simulator are available in two different driver's cabs. More information on all activities can be found [here](#).

Within Zeppelin Power Systems GmbH, the state-of-the-art [training center in Achim](#) offers high-quality technical training on all aspects of our products. For rentals, specialized and customized instruction is provided for the equipment. 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 respective websites of the companies.





**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, 401-2

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. The measures are supplemented by company-specific HR development processes that are embedded in the overall strategic concept. Overall, cross-company and cross-border cooperation in the area of HR is pursued as a success factor for a sustainable HR policy. As of December 31, 2022, the Group had more than 10,000 employees (headcount). These are divided into six strategic business units. The table shows the breakdown of Zeppelin Group employees by FTE (Full-Time Equivalent) and headcount, the number of trainees, and the full-time ratio.<sup>8</sup> From 2021 to 2022, the number of Zeppelin employees in the Construction Equipment Eurasia and Power Systems SBUs fell.

<sup>8</sup> We specify the number of employees excluding apprentices, employees on long-term sick leave, interns/trainees, combined study/work students as well as employees on unpaid leave, partial retirement in the release phase and those on parental leave. Temporary workers and freelancers are also not included. In contrast, employees on maternity leave and those engaged in military or community service are included.

The year 2022 was marked by the Russian war of aggression on Ukraine, which led to a humanitarian crisis in the affected areas and far-reaching economic effects. The Zeppelin Group operates in Russia, Ukraine, and Belarus and is therefore directly affected by the war. The figures for the Construction Equipment Eurasia SBU and the Power Systems SBU are down, as a large proportion of employees in Russia were removed due to the war in Ukraine.

Number of employees (headcount) by business unit (as of December 31, 2022)

Employees by SBU	2020	2021	2022
Construction Equipment Central Europe SBU	2,802	2,858	2,901
Construction Equipment Eurasia SBU	1,911	2,057	1,375
Construction Equipment Nordics SBU	650	716	738
Rental SBU	1,780	1,874	2,064
Power Systems SBU	1,014	1,056	967
Plant Engineering SBU	1,619	1,638	1,850
Zeppelin GmbH	299	356	396
<b>Zeppelin Group</b>	<b>10,075</b>	<b>10,555</b>	<b>10,291</b>

Employees by type of employment (as of December 31, 2022)

Employees by type of employment	Unit	2020	2021	2022
Permanent employees (headcount)	Number	9,979	10,449	10,209
Temporary employees (headcount)	Number	96	106	82
Permanent employees	%	99	99	99
Full-time ratio <sup>9</sup>	%	97.4	97.7	97.6

<sup>9</sup> 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).

In contrast, the Construction Equipment Central Europe, Construction Equipment Nordics, Rental, Plant Engineering, and Zeppelin GmbH SBUs posted a slight increase in the number of employees. Growth in these SBUs 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. As a result, new Zeppelin employees generally receive a permanent employment contract – in 2022, the proportion of permanent employees was 99%. The use of contracts for work, temporary workers and freelancers plays a subordinate role in terms of sustainable personnel planning.<sup>10</sup>

The average age of the employees in 2022 was 42.1 years. Further information on the breakdown of the age structure can be found in the appendix under “Overview of non-financial key figures”. Demographic change, 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. Among other initiatives, Zeppelin will increasingly use employer branding measures in 2023 in order to further expand and consolidate its positioning as an attractive employer.

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.

**Personnel costs in million euros**

2020		621.9
2021		692.0
2022		745.2

<sup>10</sup> No significant proportion of the company’s activities are carried out by employees who are employed outside Zeppelin.

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 IFRS)<sup>11</sup>**

Total per year (T€)	2020	2021	2022
Employee benefits	177,479	168,479	113,032

**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. The majority of companies of Zeppelin Systems GmbH in Germany are bound **by collective bargaining agreements as part of IG Metall**, 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

<sup>11</sup> See list in the Annual Report 2022 (p. 107).



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 overview of the individual collective agreements and the sites and employees in Germany covered by these are shown below.

**Collective bargaining agreements in Germany**

Overview of collective bargaining agreement in Germany <sup>12</sup>	2020	2021	2022
Construction Collective Agreement – Zeppelin Rental GmbH	60	57	51
Metal Collective Agreement Baden-Württemberg – Zeppelin Systems GmbH	457	514	530
Hessen Metal Collective Agreement – Zeppelin Systems GmbH	265	319	336
Saxony Metal Collective Agreement – Zeppelin Systems GmbH	15	16	18

**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.

<sup>12</sup> The reporting date is 31 Dec. of the respective reporting year, reported in headcount.

**Our leadership principles at Zeppelin**



To anchor the five management principles in the Zeppelin Group in the long term, they were incorporated into new and existing management development programs and processes in 2022. The implementation was also accompanied by a comprehensive workshop format for all Zeppelin managers in order to incorporate the management principles even more strongly into their daily work. In 2023, in addition to the ongoing programs, further practice-oriented workshop formats and initiatives on focus topics such as inclusive leadership and healthy leadership are planned.

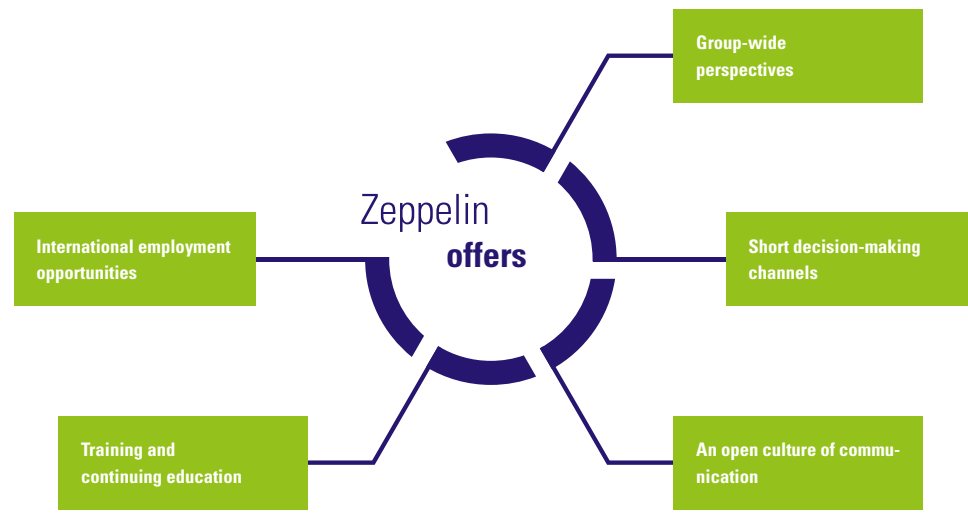
## 7.2 Employee satisfaction

### Growing with Zeppelin – a promise to employees

GRI 3-3, 401-1

The long-term success of the company is only ensured if every employee can reach their full potential. This is why the Group’s promise, in its role as an employer, is “Grow with Zeppelin.” The focus is on the promotion and targeted development of employees. **Finding talented individuals, nurturing employees, and inspiring them to be part of Zeppelin for the long term** – these are the three cornerstones of our HR work. The Zeppelin Group offers its employees short decision-making pathways and an open communication culture that crosses company and national borders. Thanks to the international posting opportunities and numerous training and further education opportunities, which are carried out both internally and externally, a wide range of career opportunities is available for every employee.

#### Zeppelin as an employer



### Progress in employee satisfaction

All projects and initiatives 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.

- 1 **Progress on objective 1**  
 → Maintain an average length of service at a level of at least 9.3 years (as of 2022: 9.7 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 9.7 years (2022).

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 years of service

SBU	2020	2021	2022
Construction Equipment Central Europe SBU	12.3	12.1	12.1
Construction Equipment Nordics SBU	7.3	7.2	7.9
Construction Equipment Eurasia SBU	6.1	6.3	7.1
Rental SBU	7.5	7.6	7.3
Power Systems SBU	10.3	10.3	10.7
Plant Engineering SBU	12.4	12.1	11.2
Zeppelin GmbH	6.0	6.3	6.6
<b>Group</b>	<b>9.6</b>	<b>9.4</b>	<b>9.7</b>

**2 Progress on objective 2**

→ Maintain the **voluntary resignation rate at a maximum of 5% by 2025** (status as of 2022: 7.4%)

In addition to the crisis situation caused by the war, social and economic trends and challenges have also had lasting influences on the working world. These include demographic change, globalization and digitalization, changing values and lifestyles, and the shortage of skilled workers. These challenges require additional measures to attract and retain employees. One indicator of employee satisfaction is the rate of voluntary resignations. This was 7.4% in 2022, which is higher than in the previous year (5.8%). This shows a heterogeneous picture with great variability across countries, business units, and professional groups. Overall, developments in the Zeppelin Group reflect the long-standing trend towards an employee market with a shortage of skilled workers. In recent years, Zeppelin has introduced a variety of measures to increase employer attractiveness and employee satisfaction in order to achieve the overarching goal.

In addition, the global Z VOICE employee survey will be carried out in 2023 to collect feedback from all Zeppelin employees. The aim is to identify the strengths and potential for improvement in the company and to analyze the influencing factors of employee retention, satisfaction, and motivation in more detail.

**Voluntary resignation rate as a percentage**

2020		4.2
2021		5.8
2022		7.4

**Measures to promote employee satisfaction**

**Onboarding process**

In 2022, Zeppelin continued the proven concept of offering the **"Z Welcome"** onboarding program for new employees as a wholly online version. A German-speaking and an English-speaking international event were held so that employees from abroad also had the opportunity to participate in onboarding and receive all the relevant information. The onboarding program ensures 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 then presented in an interactive format and networking made possible.

**Training, dual study program and trainee program**

The Zeppelin Group is currently providing training in 12 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, three-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 individual SBUs 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, and electrical engineering. In 2022, 24 dual students learned and worked in various business units of the Zeppelin 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**

Number of trainees and dual students	2020	2021	2022
Trainees at the Zeppelin Group (FTE)	362	361	376
Dual study program students (FTE) <sup>13</sup>	30	22	24

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 open offers from all strategic business units.

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 2022, eleven trainees completed the extensive program to start their professional lives. Ten 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 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 student trainee activities.

**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

<sup>13</sup> Applies exclusively to German Group companies, as of December 31, 2022.

the two 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 mobile 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.” Zeppelin GmbH 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 berufundfamilie audit since 2018. 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 have taken parental leave remains at a constant level. Many of them have now joined our Z PARENTS initiative. Almost 120 employees have joined since it was launched.

Number of employees who took parental leave<sup>14</sup>

Year	Unit	2020	2021	2022
Employees who have taken parental leave	Headcount	102	110	90

### 7.3 Diversity (Inclusion, Equity & Diversity)

GRI 3-3, 405-1

**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.

<sup>14</sup> Applies exclusively to German and Austrian companies in accordance with statutory regulations.



## Progress in diversity

### 1 Progress on objective 1

→ Increase in the proportion of women to at least 20% by 2025 (status in 2022: 18%)

At Zeppelin, equal opportunities for women and men 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 to at least 20% by 2025. The 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 driver for 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 all our HR development programs, regular offers on action days such as Girls Day, and our Z NOW initiative for the promotion and visibility of employees.

### Measures to promote diversity

In 2022, there were again many initiatives and measures related to diversity, equal opportunities, and inclusion. In addition to regular stimulating diversity talks, employees worldwide were able to learn and talk about diversity in various digital presentations, discussion rounds and personal stories on the topic of diversity as part of an "Age diversity and generation management" action day. Building on this, the "Reverse Mentoring" program is an initiative that has set itself the task of passing on knowledge and expertise across ages, exchanging ideas and learning from one another. The Diversity Ambassadors measure will also be continued. 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.

### Distribution of employees by gender in % at Group level (in management positions)

Category	2020	2021	2022
Female	16%	17%	18%
Male	84%	83%	82%
Diverse	N/A	N/A	N/A
Proportion of women on the Management Board (Group)	25%	25%	25%
Proportion of women on the Supervisory Board (Group)	25%	33%	33%
Proportion of women at 1st management level	22%	21%	20%
Proportion of women at 2nd management level	17%	18%	20%
Proportion of women at 3rd management level	15%	17%	15%

### Z NOW – Network of Women

Z NOW, established in 2016, is a strategic initiative which is primarily aimed at women, and is operated by the Zeppelin Group. Men are, of course, also welcome. Zeppelin believes that equal opportunities for women and men 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 also 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. Our presence at the herCAREER careers fair was another highlight in 2022



for attracting talented prospective female employees to Zeppelin, and a large online event on the topic of communication and glass ceilings. For 2023, we are planning to expand our network as well as exciting events (e.g. a presentation on "Women and Finances").

## 7.4 Occupational health and safety

GRI 3-3, 403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 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. Further campaigns are also planned for the coming years.

### Progress in occupational health and safety

**1** | **Progress on objective 1**  
 ■■■ | → Reducing 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 Zeppelin 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 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.”

The number of work-related accidents per 1,000 employees fell by about 8% last year. As a result, the defined target of a 10% reduction in 2022 was achieved. The majority of work-related accidents occurred in the Construction Equipment Central Europe SBU. In 2022, about 50% of the reported work-related accidents occurred there. In the Rental SBU, the Power Systems SBU, and the Plant Engineering SBU, the number of work-related accidents rose slightly compared with the previous year. This can be attributed, among other things, to the higher risks posed by working in the service or field service area. According to an analysis by the German companies, the majority of work-related injuries occur in the hand, followed by the ankle or foot and forearm. Zeppelin is continuing to work on reducing its occupational accidents. Among other things, an even more in-depth analysis of work-related accidents and corresponding instruction and awareness-raising of employees is planned for 2023.

**Overview of work-related accidents**

	Unit	2020	2021	2022
Number of work-related accidents (> 3 days) per SBU				
Construction Equipment Central Europe SBU	Number	114	126	114
Construction Equipment Eurasia SBU	Number	3	7	7
Construction Equipment Nordics SBU	Number	3	14	2
Rental SBU	Number	65	59	64
Power Systems SBU	Number	27	21	22
Plant Engineering SBU	Number	17	16	22
<b>Zeppelin Group<sup>15</sup></b>	<b>Number</b>	<b>229</b>	<b>243</b>	<b>231</b>
Work-related accidents per 1,000 employees <sup>16</sup>	Number	23.2	23.5	21.6
Fatal accidents at work	Number	0	0	0
Lost Time Injury Frequency Rate <sup>17</sup>	Rate	12.3	12.5	11.5

**Summary of accident-related lost days**

	Unit	2020	2021	2022
Lost days per SBU				
Construction Equipment Central Europe SBU	Number	2,933	3,554	3,042
Construction Equipment Eurasia SBU	Number	87	505	480
Construction Equipment Nordics SBU	Number	50	145	62
Rental SBU	Number	1,321	1,174	1,208
Power Systems SBU	Number	358	285	358
Plant Engineering SBU	Number	456	549	311
<b>Zeppelin Group<sup>16</sup></b>	<b>Number</b>	<b>5,205</b>	<b>6,212</b>	<b>5,461</b>
Lost days per 1,000 employees <sup>18</sup>	Number	527.3	600	510.4

<sup>15</sup> Within Zeppelin GmbH, there have been no work-related accidents in recent years and therefore no days lost due to accidents

<sup>16</sup> The 1,000-person ratio 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.

<sup>17</sup> 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

<sup>18</sup> The number of employees in recent years is shown in the Human Resources section.



**2 Progress on objective 2**

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

The target of an annual reduction of 10% in days lost<sup>19</sup> as a result of accidents was achieved in 2022 (2022: 12%) and is therefore at a similar level to 2020. It was also possible to reduce the number of days lost per 1,000 employees compared with the previous year. The Group will continue this trend on the path to “Vision Zero” with further targeted measures and work on a new understanding of safety.

**3 Progress on objective 3**

→ Increasing the health rate to at least 97% by 2025  
(status as of 2022: 95.5%)

Health promotion also played a particularly important role in 2022 due to the ongoing COVID-19 pandemic. Since the spring, there has been an increase in sick leave throughout Germany (source: Umbrella Association of Occupational Health Insurance Funds). The elimination of contact restrictions, the resumption of public life, and the relaxation of mask requirements played a major role in this regard. At Zeppelin, too, employees increasingly returned to the office, which increased the transmission of diseases. Overall, health management at Zeppelin is considered to be greatly important as it has a decisive influence on maintaining performance and on life satisfaction. Not only can it reduce absenteeism, but it can also lead to increased vitality and energy in everyday work. The health rate has been continuously between 95.5% and 96.5% over the past three years. The Construction Equipment Eurasia SBU and Zeppelin GmbH reported a particularly high health rate of almost 97%. The ongoing COVID-19 pandemic continues to have an impact on the way we work at Zeppelin. To support employees in this challenge, they also had the opportunity to participate in various campaigns and measures in 2022 via the Z FIT health initiative. The offering included a digital challenge on nutrition and sugar, weekly “moving breaks” to give employees the opportunity to integrate a little more movement into their everyday work, and a keynote speech on “How movement accompanies us through life”. To support our employees in balancing work and private

<sup>19</sup> The reduction is calculated in comparison with the previous year.

life, famPLUS family service advisory services are also available in the areas of care advice, childcare, and psychosocial counseling.

**Health rate per SBU at Group level**

Health rate as a percentage	2020	2021	2022
Construction Equipment Central Europe SBU	95.6%	95.6%	95.4%
Construction Equipment Nordics SBU	96.2%	96.5%	<b>95.6%</b>
Construction Equipment Eurasia SBU	98.1%	97.6%	97.5%
Rental SBU	94.2%	96.4%	93.9%
Power Systems SBU	96.6%	96.6%	94.8%
Plant Engineering SBU	96.7%	96.7%	95.7%
Zeppelin GmbH	97.9%	97.7%	97.1%
<b>Zeppelin Group</b>	<b>96.2%</b>	<b>96.5%</b>	<b>95.5%</b>

**Occupational health and safety measures**

Various technical measures were implemented at the sites to promote health and safety at work. To react more quickly in the event of an accident, Zeppelin Baumaschinen GmbH has installed new emergency telephones in the workshops, which establish direct contact with the emergency department. SOS alarm buttons were also introduced at SITECH Deutschland GmbH for lone workstations. In the wake of the COVID-19 pandemic, the flexible combination of office-based and mobile working has become well-established and has proven very efficient in those areas of activity which allow it. In order to make spatial adaptations to meet the changing requirements of the new working environment (“new work”), an office concept with short-term workstations, open-space landscapes, desk sharing, project rooms and retreat areas for work requiring higher levels of concentration has already been implemented in several areas at the headquarters in Garching. In addition to the changes already mentioned, there are also height-adjustable tables at each of these workplaces to promote the health of employees. Besides the technical measures mentioned above, various company-specific organizational measures have been implemented. All managers of the Zeppelin Rental GmbH company were trained in the legal requirements in order to clarify

Accident cockpit



the company's obligations in the area of occupational health and safety. On the World Day for Safety and Health at Work, various types of campaigns were carried out within the company Zeppelin Systems GmbH. Interested employees were able to obtain information directly from the fire protection, rescue and health protection experts during fire protection exercises, fire extinguishing simulations, first aid workshops, visits to an ambulance and other information offers. In addition, an online presentation on the topic of "Psychological stress in the workplace" was offered. In 2022, a project was launched to digitally record accident log entries, near misses and work-related accidents throughout Germany as a first step. From 2023, an overview of the respective accidents in the "Accident Cockpit" should then be available for each site on a daily basis. The data is then aggregated automatically. In addition to the benchmark across different sites, analyses of accidents and potential hazards in everyday work can be recorded. The functions will then be gradually expanded in 2023.

## 7.5 Financial commitment

### Business and corporate social responsibility

GRI 3-3

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.

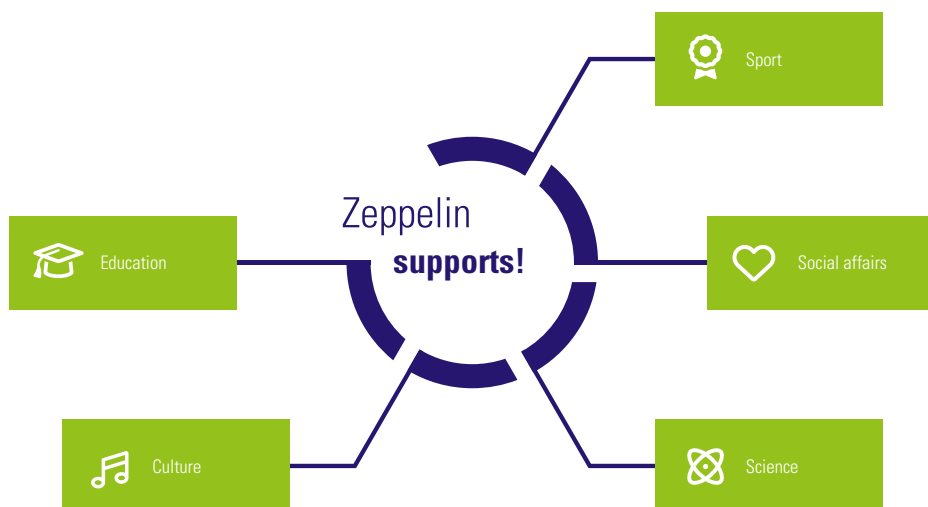
### Progress in donations

1 

#### Progress on objective 1

- Allocating donations in accordance with the foundation's ethos and vision on the company's economic earning power
- Total donations as a proportion of Group net income (earnings before tax) of at least 0.5 to 1% annually

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 1.3 million (1.3% in relation to Group net income), Zeppelin achieved its goal in the 2022 fiscal year.

In 2022, around 48% of the expenditure was for sponsorship, with funding focusing on sport. The Zeppelin Group spends a large proportion of its donation budget on Education and Social.

Allocation of donations and sponsorship expenses 2022

Allocation of donations and sponsorship expenses 2022	Donations (€)	Sponsorships (€)
Education	874,244 <sup>20</sup>	161,071
Culture	8,755	60,077
Science	56,300	8,500
Social affairs	190,355	2,356
Sport	18,046	678,771
Other	154,860	299,583
<b>Total (in euros)</b>	<b>1,302,559</b>	<b>1,210,358</b>
<b>Share</b>	<b>52%</b>	<b>48%</b>

Financial commitment measures

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 on stage are Award for impressive school projects and scientific papers. The announcement for the 15th edition of the awards was made in May 2022.

<sup>20</sup> Including funding for Zeppelin University in Friedrichshafen

Alexandra Mebus (left) with the winners of the “Litfaßsäule” (JUST! Youth Foundation Award, 2022 Award Ceremony)



With the outbreak of the Ukraine war and the onset of a humanitarian crisis, the Zeppelin Group and its employees worldwide showed great compassion and solidarity. In February 2022, a Ukraine aid fund in the amount of EUR 100,000 was set up to get affected employees and their families out of dangerous areas. Another charitable fund was set up in March 2022 via the “Aktion Deutschland Hilft” alliance, with the aim of organizing aid supplies for affected regions. Our employees’ willingness to donate was enormous: Some 266 employees transferred around EUR 36,000 to the internationally active charity. The Zeppelin Group Management Board then topped up the donation amount to EUR 75,000.

Zeppelin 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.

Since fair play and sportsmanship are firmly anchored in Zeppelin’s corporate culture, the promotion of **sports**, and team sports in particular, is a special cause for the Group. Zeppelin feels a special connection between Friedrichshafen and the Lake Constance region, and has been supporting VfB Friedrichshafen as a sponsor and in the form of donations 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.

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. In 2022, Zeppelin donated to the initiative the proceeds of the Zeppelin Driver’s Bar at bauma 2022. The company more than doubled the sales total of EUR 45,000 and increased it to a grand total of EUR 100,000. 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.

Zeppelin is also a promoter in the **arts and culture** sector. The Deutsches Museum’s network of friends and sponsors [in Munich, and the “Kultur Caserne” cultural initiative are regular recipients of support.](#) Individual projects are also considered, with donations made on an ad hoc basis.

Beyond sports sponsoring, the Zeppelin Group is also active in promoting activities as a **sponsor and partner** at the Tyrolean Festival Erl, the Munich Management Colloquium at the TU Munich.



**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, which is anchored in Zeppelin’s essence 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. 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.

In 2019, the Zeppelin Group extended the existing syndicated loan agreement with the core banks and, as a foundation company, placed great importance on the syndicated credit facility being issued as a green loan clause. This means that interest on loans increases or decreases depending on the achievement of sustainability targets especially energy saving targets. The first evaluation of the defined targets was carried out for 2020 and showed that the desired outcomes, i.e. the defined energy savings and the

required number of certified companies, had been successfully achieved. All procedures and specifications for alignment, development, monitoring, and improvement are described in the management manual. The energy and 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, the management review takes place with the Group Management Board, in which the effectiveness of the management approach is reviewed and documented. The effectiveness of the energy and environmental management system was confirmed for 2022.

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, there are isolated local certificates for an environmental management system in accordance with ISO 14001 in the countries of Slovakia, Sweden, Denmark, and the Czech Republic.

## 8.2 Carbon neutrality

GRI 3-3, 302-1, 302-3, 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.

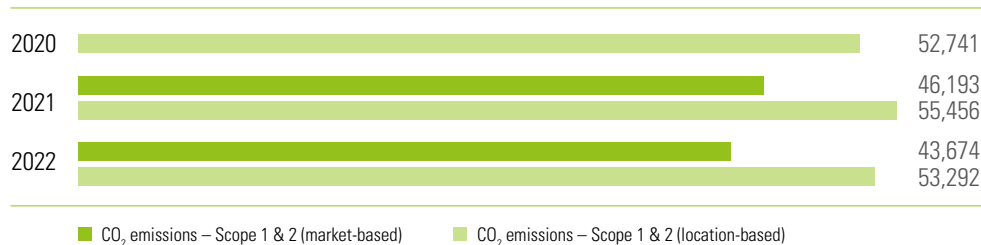
**1** | **Progress on objective 1**  
 → Carbon neutrality in ongoing business operations by 2030 at the latest (Scope 1 & 2)

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 CO<sub>2</sub> emissions. CO<sub>2</sub> 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, CO<sub>2</sub> emissions have been calculated using the market-based and location-based method. For this reason, no CO<sub>2</sub> emissions according to the market-based method are yet available for the 2020 fiscal year. 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 CO<sub>2</sub> emissions.

The reduction in CO<sub>2</sub> emissions by -5.5% (market-based) compared with the previous year can be attributed to the lower energy consumption within the Zeppelin Group. As part of renovation projects on existing buildings and other energy efficiency measures, Scope 1 & 2 emissions were also reduced. A detailed analysis of the energy consumption is given in this section.

Change in CO<sub>2</sub> emissions (tonnes CO<sub>2</sub> 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 drive forward the goal of carbon neutrality, targets and measures were defined at SBU and national company level in 2021 to reduce CO<sub>2</sub> emissions as part of the Group Call for Strategy. For example, a conversion to green electricity within the German companies by 2023 was defined. The measures will now be implemented step by step by 2030. A detailed description can be found in the Measures area.

A project will be initiated in 2023 to make it possible to also analyze the Zeppelin Group’s Scope 3 emissions in the future and identify new action areas. A relevance assessment of the sub-categories has already been carried out in advance in order to be able to derive focus topics from them. Initial calculations are then carried out. The focus topics include categories from both upstream and downstream processes.

Change in CO<sub>2</sub> emissions (Scope 1 & 2)

CO <sub>2</sub> emissions	Unit	2020	2021	2022
Scope 1	to CO <sub>2</sub> e	37,003	38,534	37,551
Scope 2 (location-based)	to CO <sub>2</sub> e	15,738	16,922	15,739
Scope 2 (market-based)	to CO <sub>2</sub> e	n/a	7,659	6,123
<b>CO<sub>2</sub> emissions – Scope 1 &amp; 2 (location-based)</b>	<b>to CO<sub>2</sub>e</b>	<b>52,741</b>	<b>55,456</b>	<b>53,292</b>
<b>CO<sub>2</sub> emissions – Scope 1 &amp; 2 (market-based)</b>	<b>to CO<sub>2</sub>e</b>	<b>n/a</b>	<b>46,193</b>	<b>43,674</b>

CO<sub>2</sub> emissions – Scope 1 & 2 per SBU

CO <sub>2</sub> emissions per SBU	Unit	2020 location-based	2021		2022	
			location-based	market-based	location-based	market-based
Construction Equipment Central Europe SBU	to CO <sub>2</sub> e	18,843	19,785	16,868	18,646	15,277
Construction Equipment Eurasia SBU	to CO <sub>2</sub> e	9,414	10,583	10,094	9,546	9,522
Construction Equipment Nordics SBU	to CO <sub>2</sub> e	4,236	4,244	3,762	4,770	3,613
Rental SBU	to CO <sub>2</sub> e	9,895	10,595	9,193	10,539	9,137
Power Systems SBU	to CO <sub>2</sub> e	3,368	3,271	2,531	3,122	2,413
Plant Engineering SBU	to CO <sub>2</sub> e	5,758	5,723	3,285	5,522	3,340
Zeppelin GmbH (holding company)	to CO <sub>2</sub> e	1,227	1,255	460	1,147	372
<b>Zeppelin Group</b>	<b>to CO<sub>2</sub>e</b>	<b>52,741</b>	<b>55,456</b>	<b>46,193</b>	<b>53,292</b>	<b>43,674</b>

**2 Progress on objective 2**

→ Reduce electricity and heat consumption by 1% annually between 2021 and 2025 (electricity, heat)

The total energy consumption is based on the individual consumption per Group company and stated in megawatt hours (MWh).<sup>21</sup>

In 2021 and 2022, absolute energy consumption was reduced by -2.7%. Electricity and heat consumption were reduced by -7.6%. Thus, the target of energy savings for the period from 2021 to 2022 was achieved. This is due to numerous energy efficiency measures and the energy saving campaign. The reduction in room temperatures in winter and the switch to LEDs are particularly notable.

**Change in absolute total energy consumption from 2020 to 2022 (megawatt hours)**

2020		187,558
2021		197,655
2022		192,325

The majority of energy consumption was due to the use of fuels: Around 59% of the total worldwide energy consumption in 2022 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 key performance indicators also shows a reduction since 2020. The total energy consumption and the CO<sub>2</sub> emissions (Scope 1 & 2 – market-based) in relation to the number of employees and the revenue generated were used for the calculation.

<sup>21</sup> The total energy consumption shown includes a small percentage of forecast consumption (less than 5%).

**Photovoltaic systems in Garching**





**Total energy consumption per SBU**

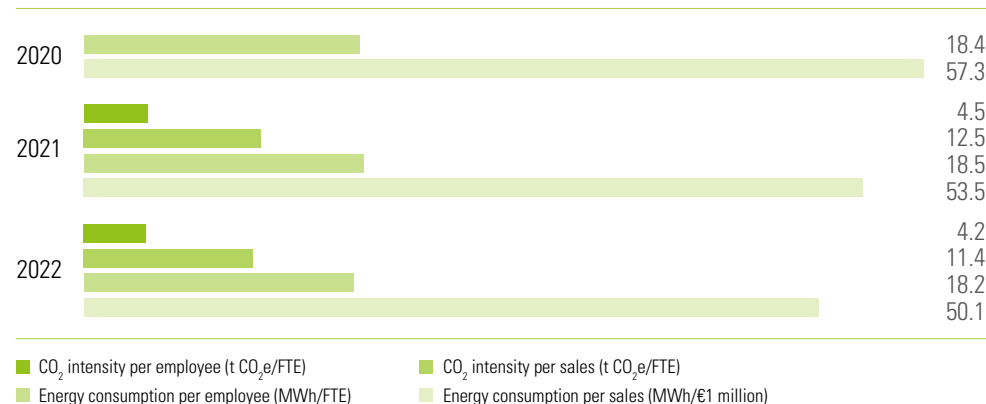
SBU	Unit	2020	2021	2022
Construction Equipment Central Europe SBU	MWh	67,795	71,500	67,270
Construction Equipment Eurasia SBU	MWh	32,626	36,046	34,249
Construction Equipment Nordics SBU	MWh	18,653	18,694	20,777
Rental SBU	MWh	34,963	37,020	37,216
Power Systems SBU	MWh	12,047	11,830	11,186
Plant Engineering SBU	MWh	18,147	19,096	18,617
Zeppelin GmbH (holding company)	MWh	3,327	3,469	3,010
<b>Zeppelin Group</b>	<b>MWh</b>	<b>187,558</b>	<b>197,655</b>	<b>192,325</b>

**Overview of energy consumption per energy type<sup>22</sup>**

Energy consumption per energy source	Unit	2020	2021	2022
<b>Total heat consumption</b>	<b>MWh</b>	<b>48,053</b>	<b>55,216</b>	<b>49,609</b>
Consumption of natural/liquid/propane gas	MWh	37,821	43,541	36,402
District/local heating consumption	MWh	8,451	9,304	10,324
Heating oil consumption	MWh	1,781	2,372	2,878
Diesel consumption (heating)	MWh	0	0	5
<b>Power consumption</b>	<b>MWh</b>	<b>30,230</b>	<b>32,154</b>	<b>30,981</b>
<b>Total fuel consumption</b>	<b>MWh</b>	<b>108,683</b>	<b>109,502</b>	<b>110,853</b>
Diesel consumption (fleet)	MWh	98,018	98,732	100,361
Diesel consumption (other)	MWh	675	1,105	614
Gasoline consumption	MWh	9,990	9,665	9,878
<b>Consumption of renewable energies</b>	<b>MWh</b>	<b>592</b>	<b>783</b>	<b>882</b>
<b>Total energy consumption</b>	<b>MWh</b>	<b>187,558</b>	<b>197,655</b>	<b>192,325</b>

<sup>22</sup> 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.

**Change in energy performance indicators (EnPI) from 2020 to 2022**



**Measures implemented in 2022**

Implementation of the modernization strategy: As part of the modernization concept, in which our world-wide sites that we own will be renovated by 2030, the first projects were already implemented in 2022. The site in Villach (Austria) was thermally renovated and equipped with a photovoltaic system, LED lighting and electric charging stations. In addition, modernization work started in Ulm, Freiburg, and Rendsburg in the second half of the year. Furthermore, heat pumps have already been installed at six German sites. Photovoltaic systems have been installed at five sites, and 15 more are already being planned for 2023. In addition, sustainability issues were already addressed in our new buildings at the start of the project. For example, a 130 kWh battery storage system was installed alongside a 24 kWp photovoltaic system in the new construction of the site in Bratislava, which also supplies energy for the air-to-water heat pump. In addition, an underground rainwater tank has been built to reduce fresh water consumption. The new **Nordics SBU headquarters in Landvetter near Gothenburg is set to be certified by BREEM for its energy-efficient and environmentally friendly design.**

Modernized site in Villach (Austria)



### 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 CO<sub>2</sub> emissions, which are largely caused by the fleet. Around 8% of Group-wide company cars were electric or hybrid vehicles in 2022. A pilot project to convert service vehicles to electric drive was also initiated. However, due to the range requirements, the conversion is limited to the technologies currently available on the market. The electric vehicles can be charged via the charging network at Zeppelin, which is currently being built. In 2022, there were 201 charging points already built at 46 locations in Germany and other locations in Austria, Slovakia, the Czech Republic, Belgium and Denmark. Other sites will gradually be equipped with charging stations in the coming years.

New CO<sub>2</sub> neutral site in Bratislava (Slovakia)

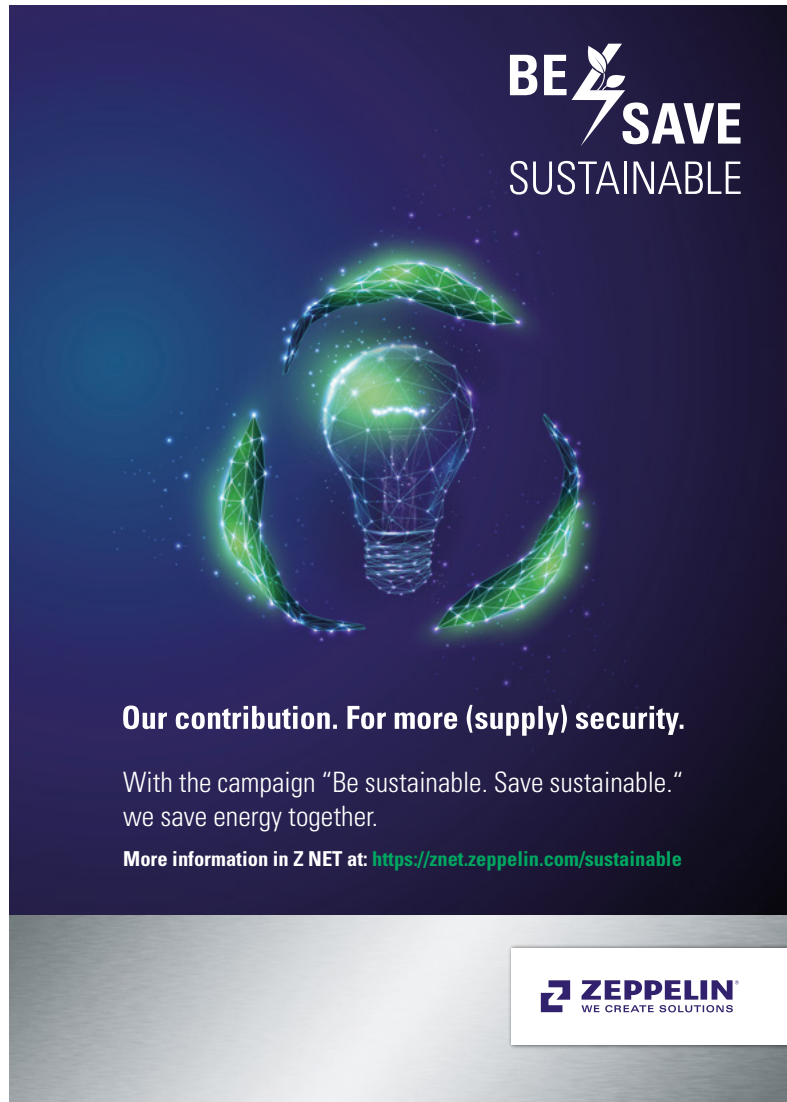


### Energy-saving campaign “Be sustainable. Save sustainable.”

A worldwide energy saving campaign was launched in the reporting year. With the campaign “Be sustainable. Save sustainable” Zeppelin wants to make an active contribution to saving energy together with all employees. In addition to posters, tips on how to save energy in the company and in the private sector were also provided. With the help of an online pin board, further ideas were gathered and measures were exchanged across the Group.

In addition to the actions already mentioned, additional decentralized projects were carried out at the individual sites. For example, in the period from July 5 to July 14, 2022, the “Bike and collect kilometers” campaign took place, in which plant engineering employees were able to play sports together and reinforce the team spirit. The aim of these campaign weeks was to save CO<sub>2</sub>, reduce trips by car and at the same time improve general fitness. A total of 3,372 kilometers were covered by bicycle during the campaign.

Energy-saving campaign at Zeppelin



### 8.3 Reduce water consumption

GRI 3-3, 303-1, 301-2, 301-3, 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 a goal for the efficient use of this important resource.

**1** **Progress on objective 1**  
 → Reduce water consumption by 30% by 2030 (base year 2021)

In 2021, the Zeppelin Group set itself the goal of reducing fresh water consumption by 30% by 2030 as part of the Group Call for Strategy (base year 2021). The fresh water consumption is based on the individual consumption per national company.

Water consumption increased by 6.8% in 2022 compared with 2021. Of the total water consumption, 1,186 m<sup>3</sup> can be attributed to the use of rainwater. The increased consumption was due in particular to the Plant Engineering SBU. Constant room temperatures are required in the laboratory due to the calibration and measuring instruments used. Due to the high outside temperature in summer 2022, an increased cooling requirement and thus fresh water consumption was necessary in the calibration laboratory to ensure the required room temperature of 20 degrees. Evaporative cooling with waste heat utilization will be replaced by an electrically operated compression chiller. The Construction Equipment Eurasia and Central Europe strategic business units cut consumption slightly.

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, Russia, Uzbekistan, Belgium, Greenland, Tajikistan and Turkmenistan. The water consumption of these sites in 2022 was 22,132 m<sup>3</sup> (2021: 23,985 m<sup>3</sup>). Particularly in these regions, it is very important to use water sparingly.

**Change in water consumption from 2020 to 2022 (cubic meters)**

2020		133,940
2021		138,438
2022		147,940

**Change in water consumption per SBU**

SBU	Unit	2020	2021	2022
Construction Equipment Central Europe SBU	m <sup>3</sup>	46,363	42,054	42,273
Construction Equipment Eurasia SBU	m <sup>3</sup>	32,875	40,503	38,086
Construction Equipment Nordics SBU	m <sup>3</sup>	7,115	8,332	9,735
Rental SBU	m <sup>3</sup>	20,012	20,960	21,662
Power Systems SBU	m <sup>3</sup>	2,936	3,014	3,053
Plant Engineering SBU	m <sup>3</sup>	21,900	19,294	29,469
Zeppelin GmbH (holding company)	m <sup>3</sup>	2,739	4,281	3,662
<b>Zeppelin Group</b>	<b>m<sup>3</sup></b>	<b>133,940</b>	<b>138,438</b>	<b>147,940</b>

**Implemented measures to reduce water consumption**

Within the framework of the Call for Strategy, numerous measures were defined within the national companies to reduce fresh water consumption. Of these, the following measures were successfully implemented in 2022:

- The water supply system at the Ashgabat site (Turkmenistan) was renovated. Replacing old water pipes and eliminating leaks reduced water consumption by about 6%. This corresponds to a saving of around 1,000 m<sup>3</sup> of water per year.
- A potential analysis for the measurement of rainwater cisterns was carried out at the Zeppelin Baumaschinen GmbH sites. Five assets were identified to be reactivated during 2023. Rainwater cisterns are also taken into account in new buildings such as at Bratislava and Eschweiler.
- A water circulation system was implemented at three Zeppelin Rental sites at the washing stations used to clean the machines.

**8.4 Circular economy**

GRI 3-3, 306-1, 306-2, 306-3

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 strategic Construction Equipment Central Europe company, the sludge traps required to clean the machines have a major influence on the generation of waste.

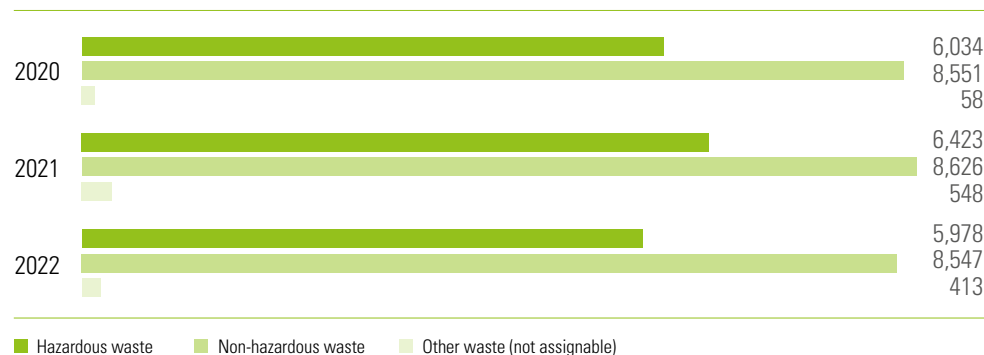
Within the Zeppelin Group, non-financial key figures are compiled and evaluated for each site. These also include hazardous and non-hazardous waste. Pursuant to the Commercial Waste Ordinance in Germany, waste is collected separately at the sites. Separate containers are provided for each site for this purpose. When disposing of the separately collected waste, the respective waste producer includes a disposal certificate. A waste balance is prepared for each site and company on the basis of these disposal certificates in accordance with the Recycling Economy Act. The disposal certificates also track whether the waste is thermally or materially recycled or landfilled.

**1 Progress on objective 1**

- Greatest possible resource efficiency through prevention and reduction of waste
- Global analysis of waste streams and types
- Cooperation exclusively with qualified waste disposal companies
- 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 tonnes. In 2022, the absolute amount of waste was reduced by about 4.2%. 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 57% of the reported waste in 2022 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.

**Change in waste volumes from 2020 to 2022**



**Waste volume in tonnes per SBU**

Waste volumes per SBU	Unit	2020	2021	2022
Construction Equipment Central Europe SBU	Tonnes	6,674	6,989	6,356
Construction Equipment Eurasia SBU	Tonnes	1,188	1,613	1,479
Construction Equipment Nordics SBU	Tonnes	2,064	1,995	1,867
Rental SBU	Tonnes	2,864	3,130	3,370
Power Systems SBU	Tonnes	582	762	582
Plant Engineering SBU	Tonnes	1,214	1,066	1,241
Zeppelin GmbH (holding company)	Tonnes	57	42	43
<b>Zeppelin Group</b>	<b>Tonnes</b>	<b>14,643</b>	<b>15,597</b>	<b>14,938</b>

The target for the coming years is to analyze the waste flows and types in order to determine potential for optimization. In addition, the cooperation should continue to take place exclusively with certified waste disposal companies – the adaptation of corresponding framework agreements is being examined for this purpose. 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 implemented in the area of the circular economy**

**World Cleanup Day:** A total of 14 million people from 191 countries set an example for a clean, healthy, and plastic-free world environment at World Cleanup Day on the third Saturday of September. Many Zeppelin employees were also involved independently or in organized Zeppelin waste collection campaigns in Belgium, Turkmenistan, Tajikistan, Uzbekistan and Sweden.

Zeppelin has implemented measures to strengthen the circular economy and prevent waste, thereby optimizing its material flows. Among other things, cardboard boxes are used when shipping goods from the central spare parts warehouse. These are gathered in the branches and sent back to the spare parts warehouse via round trips. There, the cardboard boxes are used again for the shipment of spare parts. In addition, a reusable system for cleaning cloths and oil collection mats has been launched at some branches of Baumaschinen GmbH. The cleaning cloths used are collected and handed over to a specialist company for processing the oil-containing operating fluids. They can then be used again.

At the end of 2022, reusable crockery was introduced at Power Systems GmbH in the Achimer canteen, where 250 containers were provided for the employees. The bowls are replaced, cleaned, and stored in the canteen. A similar measure was also introduced at Group headquarters.

Software for collecting and analyzing sustainability indicators was rolled out at the beginning of 2022 to improve data transparency and to be able to derive targeted measures in the area of sustainability. As early as the end of March 2022, all relevant key figures were reported and transparency improved as a result.



World Cleanup Day 2022 in Uzbekistan



A long, perspective view of a factory aisle filled with rows of yellow CAT industrial machinery. The machines are arranged in a long line, receding into the distance. The floor is covered with metal grates. The lighting is bright, and the overall scene is industrial and organized.

**FACTS & FIGURES**

**All data**  
at a glance

# Appendix

## A1 About this report

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

### Report contents, period & report standard

With this report on “Sustainability at Zeppelin 2022”, 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 six 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, 2022 to December 31, 2022. The Sustainability Report refers to the period from January 1, 2020 to December 31, 2022 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 respective of 2022 is May 25, 2023. The editorial deadline for this report is June 30, 2023. 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 2022 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 2020, 2021 and

2022 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

Changes to the sites after the reporting date were submitted for the 2021 fiscal year. These were taken into account in the preparation of this year’s sustainability report. The following changes have been made, major adjustments have been noted:

#### Total energy consumption:

Adjustment by +1,358 MWh (2021 old: 196,297, new: 197,655)

→ Diesel/gasoline:

- Categorization of fuel consumption (diesel/gasoline) in Saudi Arabia and Turkmenistan. Adjustment due to different conversion factor (+9.7 MWh)
- Error in conversion of units at Sitech Austria (+226 MWh)

→ Gas: Adaptation of consumption at five sites of Zeppelin Rental and Zeppelin Baumaschinen GmbH (+ 105 MWh)

→ Heating oil: Addition at one Zeppelin Rental GmbH site (+ 145 MWh)

→ Electricity:

- Due to internal allocation of energy consumption within combined locations
- Addition of plausible projections at eight sites (+ 457 MWh)

The CO<sub>2</sub> emissions are calculated from the existing energy consumption and were accordingly adjusted by + 81 tonnes of CO<sub>2</sub>e (2021 old: 46,112 t CO<sub>2</sub>e, new: 46,193 t CO<sub>2</sub>e)



**Water consumption:**

Adjustment by + 9,699 m<sup>3</sup> (2021 old: 128,739 m<sup>3</sup>, new: 138,438 m<sup>3</sup>)

- Minor adjustment at four different sites
- Addition of rainwater flushing within the headquarters (+ 368 m<sup>3</sup>)
- Addition of plausible projections at 20 sites (+ 8,755 m<sup>3</sup>)

**Waste volumes:**

Adjustment by + 347 tonnes (2021 old: 15,250 t, new: 15,597 t)

- Adapted at two sites. Categories were not included in the waste balance sheets – these have now been added subsequently.
- Addition of plausible projections at 10 sites (+ 305 t)

Changes were made to water consumption for the 2020 fiscal year – addition of plausible projections (+ 7,941 m<sup>3</sup>)

## A2 GRI index

### Declaration on application

Zeppelin GmbH has reported in accordance with the GRI standards for the period from January 1, 2022 to December 31, 2022.

### GRI 1 used

GRI 1: Foundation 2021

### Applicable GRI industry standard

None

GRI standard	Location	Notes
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### The organization and its reporting practices

GRI 2-1: Organizational details	→ Company profile → <a href="#">Annual Report 2022</a> , p. 18 and p. 20 ff.	
GRI 2-2: Entities included in the organization’s sustainability reporting	→ A4 Overview of national subsidiaries	
GRI 2-3: Reporting period, frequency and contact point	→ A1 About this report → <a href="#">Annual Report 2022</a> , p. 76	
GRI 2-4: Corrections or restatements of information	→ A1 About this report	
GRI 2-5: External assurance	→ A1 About this report	

GRI standard	Location	Notes
<b>Activities and employees</b>		
GRI 2-6: Activities, value chain and other business relationships	<ul style="list-style-type: none"> <li>→ Company profile</li> <li>→ Supplier management</li> <li>→ <a href="#">Annual Report 2022</a>, p. 21 ff.</li> </ul>	
GRI 2-7: Employees	<ul style="list-style-type: none"> <li>→ Human resources</li> <li>→ <a href="#">Annual Report 2022</a>, p. 68 ff.</li> </ul>	<p>We specify the number of employees excluding apprentices, employees on long-term sick leave, interns/trainees, combined study/work students as well as employees on unpaid leave, partial retirement in the release phase and those on parental leave. Temporary workers and freelancers are also not included. In contrast, employees on maternity leave and those engaged in military or community service are included. As of December 31, 2022</p> <p>It is currently not possible to break down by employee with non-guaranteed working hours, as this data is not yet recorded in an internationally standardized manner.</p> <p>A more detailed representation of the subgroups required by GRI 2-7 by gender and region is not yet possible. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change from next fiscal year.</p> <p>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).</p>
GRI 2-8: Workers who are not employees		No significant proportion of the company's activities are carried out by employees who are employed outside Zeppelin.

GRI standard	Location	Notes
<b>Corporate governance</b>		
GRI 2-9: Governance structure and composition	<p>→ The Group Management Board and the Supervisory Board</p> <p>→ <a href="#">Annual Report 2022</a>, p. 4 ff. and p. 13 ff.</p> <p>→ <a href="#">Website</a></p>	<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).</p> <p>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: Nomination and selection of the highest governance body	→ <a href="#">Annual Report 2022</a> , p. 14 f.	<p>The committees and activities are described in the report of the Supervisory Board in the Annual Report 2022 p.14 ff.</p> <p>Information on the formation of committees can be found in the rules of procedure of the Supervisory Board. Further information can be found in the annual report of the Supervisory Board in the Annual Report 2022 p.14 ff.</p> <p>Six employee representatives are elected by employees. Two of these employee representatives must be representatives of trade unions represented in the company.</p> <p>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 standard	Location	Notes
<b>Corporate governance</b>		
GRI 2-11: Chair of the highest governance body	→ The Group Management Board and the Supervisory Board → <a href="#">Annual Report 2022</a> , p. 13 ff.	
GRI 2-12: Role of the highest governance body in overseeing the management of impacts	→ Sustainability organization	
GRI 2-13: Delegation of responsibility for managing impacts	→ Sustainability organization	
GRI 2-14: Role of the highest governance body in sustainability reporting	→ A1 About this report	
GRI 2-15: Conflicts of interest		<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.</p> <p>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.</p> <p>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 standard	Location	Notes
<b>Corporate governance</b>		
GRI 2-16: Communication of critical concerns	<ul style="list-style-type: none"> <li>→ Compliance</li> <li>→ Data protection</li> <li>→ Risk management</li> </ul>	<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: Collective knowledge of the highest governance body	→ Sustainability organization	
GRI 2-18: Evaluation of the performance of the highest governance body	→ Sustainability organization	
GRI 2-19: Remuneration policies	→ <a href="#">Annual Report 2022</a> , p. 172	<p>Information pursuant to GRI 2–19 a. can be found in the Annual Report 2022, p. 172. 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 standard	Location	Notes
<b>Corporate governance</b>		
GRI 2-20: Process to determine remuneration		<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: Annual total compensation ratio		At present, it is not yet possible to report the data in accordance with GRI 2-21. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change from next fiscal year.
<b>Strategy, policies and practices</b>		
GRI 2-22: Statement on sustainable development strategy	→ Statement by the Management Board	
GRI 2-23 Policy commitments	<ul style="list-style-type: none"> <li>→ Human rights due diligence</li> <li>→ Compliance</li> <li>→ Sustainable supplier management</li> <li>→ <a href="#">Code of Conduct</a></li> <li>→ <a href="#">Supplier CoC</a></li> </ul>	As part of the Supply Chain Due Diligence Act, a public statement on the information required in GRI 2-23 will also be prepared and made available on the website from 2023.
GRI 2-24 Embedding policy commitments	<ul style="list-style-type: none"> <li>→ Human rights due diligence</li> <li>→ Compliance</li> <li>→ Sustainable supplier management</li> <li>→ <a href="#">Code of Conduct</a></li> <li>→ <a href="#">Supplier CoC</a></li> </ul>	

GRI standard	Location	Notes
GRI 2-25 Process to remediate negative impacts	→ Compliance → Human rights due diligence → Sustainable supplier management	<a href="http://www.zeppelin-trustline.com">www.zeppelin-trustline.com</a>
GRI 2-26 Mechanisms for seeking advice and raising concerns	→ Compliance	<a href="http://www.zeppelin-trustline.com">www.zeppelin-trustline.com</a>
GRI 2-27 Compliance with laws and regulations	→ Compliance	
GRI 2-28 Membership of associations	→ Membership of associations and initiatives	
<b>Stakeholder engagement</b>		
GRI 2-29 Approach to stakeholder engagement	→ Stakeholder and materiality analysis	
GRI 2-30 Collective bargaining agreements	→ Human resources	Due to the different structures, it is currently not possible to indicate the percentage of employees covered by a collective agreement.
<b>GRI 3: Material topics</b>		
GRI 3-1 Process to determine material topics	→ Stakeholder and materiality analysis	
GRI 3-2 List of material topics	→ Stakeholder and materiality analysis	



GRI standard	Location	Notes
<b>Compliance</b>		
GRI 3-3 Management of material topics	→ Compliance → Risk management	
GRI 205-1 Operations assessed for risks relating to corruption	→ Compliance → <a href="#">Annual Report 2022</a> , p. 97	<p>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.</p> <p>A description of the audited companies is included in the Annual Report.</p>
GRI 205-2 Communication and training about anti-corruption policies and procedures	→ Compliance	<p>205-2 b: The anti-corruption policy is stored centrally in our Sharepoint and is therefore visible, valid and mandatory for all employees.</p> <p>205-2 c: Business partners receive the Supplier Code of Conduct, which covers anti-corruption. There is currently no list of the total number of business partners and region. Whether and to what extent this data will be evaluated in the future will be reviewed in 2023.</p> <p>Compliance basic training is mandatory for all employees. Training courses can be broken down by region with the help of our new program and can therefore be presented in the future.</p>
GRI 205-3 Confirmed incidents of corruption and actions taken	→ Compliance	<p>There were no incidents of corruption in the 2022 fiscal year and no employees were dismissed or warned about corruption.</p> <p>There were no confirmed incidents in which contracts with business partners were terminated or not extended due to violations in connection with corruption and no public law proceedings were initiated in the reporting period in connection with corruption against the organization or its employees.</p>
GRI 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	→ Compliance	
<b>Data protection</b>		
GRI 3-3 Management of material topics	→ Data protection → Risk management	

GRI standard	Location	Notes
GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	→ Data protection	
<b>Quality management</b>		
GRI 3-3 Management of material topics	→ Quality management	
<b>Sustainable supplier management</b>		
GRI 3-3 Management of material topics	→ Sustainable supplier management → Risk management	
GRI 308-1 New suppliers that were screened using environmental criteria	→ Sustainable supplier management	
GRI 308-2 Negative environmental impacts in the supply chain and actions taken		As part of the project to implement the requirements of the Supply Chain Due Diligence Obligations, 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. For this reason, the information cannot yet be provided.
GRI 414-1 New suppliers that were screened using social criteria	→ Sustainable supplier management	As part of the project to implement the requirements of the Supply Chain Due Diligence Obligations, 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. For this reason, the information cannot yet be provided.
GRI 414-2 Negative social impacts in the supply chain and actions taken		As part of the project to implement the requirements of the Supply Chain Due Diligence Obligations, 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. For this reason, the information cannot yet be provided.
GRI 408-1 Operations and suppliers at significant risk for incidents of child labor		As part of the project to implement the requirements of the Supply Chain Due Diligence Obligations, 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. For this reason, the information cannot yet be provided.

GRI standard	Location	Notes
GRI 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor		As part of the project to implement the requirements of the Supply Chain Due Diligence Obligations, 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. For this reason, the information cannot yet be provided.
<b>Sustainable products &amp; services</b>		
GRI 3-3 Management of material topics	<ul style="list-style-type: none"> <li>→ Sustainable products &amp; services</li> <li>→ Risk management</li> </ul>	
GRI 302-5 Reductions in energy requirements of products and services		The required GRI 302-5 data is not yet available. It is being examined how this data can be collected internationally via new reporting channels.
GRI 301-3 Reclaimed products and their packaging materials		The required GRI 301-3 data is not yet available. It is being examined how this data can be collected internationally via new reporting channels.
<b>Customer health and safety</b>		
GRI 3-3 Management of material topics	<ul style="list-style-type: none"> <li>→ Customer health and safety</li> <li>→ Risk management</li> </ul>	The topic of customer health and safety was defined as material for the first time as part of the materiality analysis. Information according to GRI 3-3 e and f must therefore still be determined.
GRI 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	→ Customer health and safety	
GRI 416-1 Assessment of the health and safety impacts of product and service categories		The topic of customer health and safety has only been included in the sustainability report since 2022. International processes and reporting structures must therefore first be implemented in the coming years. The information from GRI 416-1 and 2 can therefore not yet be shown in the report.
GRI 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		The topic of customer health and safety has only been included in the sustainability report since 2022. International processes and reporting structures must therefore first be implemented in the coming years. The information from GRI 416-1 and 2 can therefore not yet be shown in the report.
<b>Carbon neutrality</b>		
GRI 3-3 Management of material topics	<ul style="list-style-type: none"> <li>→ Carbon neutrality</li> <li>→ Risk management</li> </ul>	

GRI standard	Location	Notes
GRI 302-1 Energy consumption within the organization	→ Carbon neutrality	
GRI 302-3 Energy intensity	→ Carbon neutrality	
GRI 305-1 Direct (Scope 1) GHG emissions	→ Carbon neutrality → A3 Conversion factors for CO <sub>2</sub> emissions	GRI 305-1 c: Biogenic CO <sub>2</sub> emissions are not currently relevant for Zeppelin and are therefore not reported separately.
GRI 305-2 Energy indirect (Scope 2) GHG emissions	→ Carbon neutrality → A3 Conversion factors for CO <sub>2</sub> emissions	
GRI 305-3 Other indirect (Scope 3) GHG emissions	→ Carbon neutrality	Scope 3 emissions are being determined for the first time in a cross-SBU project that started in 2023 and is expected to cover all 15 categories, and therefore cannot yet be mapped. The results will be presented in the next Sustainability Report.
GRI 305-4 GHG emissions intensity	→ Carbon neutrality	
GRI 305-5 Reduction of GHG emissions	→ Carbon neutrality	The report lists various measures that represent progress towards reducing CO <sub>2</sub> 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.
<b>Reduce water consumption</b>		
GRI 3-3 Management of material topics	→ Reduce water consumption → Risk management	
GRI 303-1 Interactions with water as a shared resource	→ Reduce water consumption	
GRI 303-2 Management of water discharge-related impacts	→ Reduce water consumption	Wastewater discharge is checked regularly and legal regulations are complied with.
GRI 303-3 Water withdrawal	→ Reduce water consumption	The data collection has not been specifically divided into the categories required by GRI. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future.

GRI standard	Location	Notes
GRI 303-4 Water discharge	→ Reduce water consumption	The data collection has not been specifically divided into the categories required by GRI. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future.
GRI 303-5 Water consumption	→ Reduce water consumption	
<b>Circular economy</b>		
GRI 3-3 Management of material topics	→ Circular economy → Risk management	
GRI 306-1 Waste generation and significant waste-related impacts	→ Circular economy	
GRI 306-2 Management of significant waste-related impacts	→ Circular economy	The regulations within the companies abroad may vary; the text therefore describes the procedure for the German companies.
GRI 306-3 Waste generated	→ Circular economy	
GRI 306-4 Waste diverted from disposal		The data collection has not been specifically divided into the categories required by GRI. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future.
GRI 306-5 Waste directed to disposal		The data collection has not been specifically divided into the categories required by GRI. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future.
<b>Occupational health and safety</b>		
GRI 3-3 Management of material topics	→ Occupational health and safety → Risk management	
GRI 403-1 Occupational health and safety management system	→ Occupational health and safety	About 55% of employees are part of the occupational safety management system.
GRI 403-2 Hazard identification, risk assessment, and incident investigation	→ Occupational health and safety	
GRI 403-3 Occupational health services	→ Occupational health and safety	

GRI standard	Location	Notes
GRI 403-4 Worker participation, consultation, and communication on occupational health and safety	→ Occupational health and safety	Employee participation in Germany is 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 403-5 Worker training on occupational health and safety	→ Occupational health and safety	
GRI 403-6 Promotion of worker health	→ Occupational health and safety	Measures to promote health are described in the section on occupational health and safety. The health services are available to employees. Third-party service providers are briefed annually and their ability to work is checked.
GRI 403-8 Workers covered by an occupational health and safety management system	→ 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 cannot yet be evaluated. It is being examined whether and how this data can be reported in the future.
GRI 403-9 Work-related injuries	→ Occupational health and safety	The required information in GRI 403-9 b cannot yet be reported. It is being examined whether and how this data can be reported in the future.
GRI 403-10 Work-related ill-health	→ Occupational health and safety	Due to the differences in legislation regarding the collection of country-specific medical data, the required data on work-related illnesses cannot be collected reliably.
<b>Employee satisfaction</b>		
GRI 3-3 Management of material topics	→ Human resources → Employee satisfaction → Risk management	
GRI 401-1 new employee hires and employee turnover	→ Employee satisfaction	It is not yet possible to report the data in accordance with GRI 401-1. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change from next fiscal year.  Instead of fluctuation, the sustainability report currently shows the average length of service and the rate of voluntary resignation.

GRI standard	Location	Notes
GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul style="list-style-type: none"> <li>→ Human resources</li> <li>→ Employee satisfaction</li> </ul>	Company benefits are also offered to part-time employees.
<b>Diversity</b>		
GRI 3-3 Management of material topics	<ul style="list-style-type: none"> <li>→ Diversity</li> <li>→ Risk management</li> </ul>	
GRI 405-1 Diversity of governance bodies and employees	→ Diversity	A breakdown per employee category according to GRI 405-1 b has not yet been drawn up. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change and be restructured from next fiscal year.
GRI 405-2 Ratio of basic salary and remuneration of women to men		It is not yet possible to report the data in accordance with GRI 405-2. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change from next fiscal year.
GRI 406-1 Incidents of discrimination and corrective actions taken		The number of cases of discrimination cannot yet be presented. Due to the new requirements of the GRI and future legislation (ESRS requirements), international reporting channels must be established in order to be able to ensure reporting capability in the future. In addition, a new leading HR system has been implemented so that the reporting logic will change from next fiscal year.
<b>Donations &amp; sponsorship</b>		
GRI 3-3 Management of material topics	<ul style="list-style-type: none"> <li>→ Donations &amp; sponsorship</li> <li>→ Risk management</li> </ul>	

### A3 Conversion factors for CO<sub>2</sub> emissions

For the calculation of CO<sub>2</sub> 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. CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> emissions

Energy source	Unit	Emission factor CO <sub>2</sub> emissions (kg per unit)
Biogas	m <sup>3</sup>	0.000
Natural gas	kWh	0.202
LPG (Liquefied Petroleum Gas)	Liters	1.904
Wood chips	kWh	0.024
Heating oil	kWh	0.266
Pellets	kWh	0.023
Biomass wood	kWh	0.029
Gas	kWh	0.264
Diesel	kWh	0.266
District heating*	kWh	0.280
Electricity**	kWh	country-specific electricity mix
Renewable energies (self-generated)	kWh	0.000

The emission factors come from freely available specialist literature and are based on the “Information Sheet CO<sub>2</sub> Factors” of the Federal Office of Economics and Export Control. The determination of emissions due to the use of refrigerants has so far been dispensed with due to the low relevance.

\* District heating: In real terms, emissions in the district heating sector can deviate significantly upwards or downwards depending on the generator’s source. When calculating CO<sub>2</sub> emissions, it is possible to use the real emission value, provided that corresponding evidence is provided via the calculation method.

\*\* For the emission factor for electricity, the respective country electricity mix of the individual countries was used. Data from the Verband der Automobilindustrie e.V. (Association of the Automotive Industry) and thinkstep AG provided the basis for this; (source: VDA, thinkstep AG: “Emission factors for electricity, district heating and fuels”, June 2019).



## 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
Zeppelin GmbH	Germany
AT Baumaschinentechnik Beteiligungs GmbH	Germany
Energyst Germany GmbH (consolidated for the first time in 2022 and merged with Zeppelin Rental GmbH)	Germany
IBH Ingenieurbüro Herzbruch GmbH	Germany
Klickrent GmbH (formerly: Accelerent GmbH)	Germany
Klickparts GmbH	Germany
Luther Verwaltungs GmbH (consolidated for the first time in 2022 and merged with Zeppelin Rental GmbH)	Germany
Magdalena Kitzmann GmbH (consolidated for the first time in 2022)	Germany
METON GmbH	Germany
SITECH Deutschland GmbH	Germany
Zeppelin Aviation & Industrial Service GmbH	Germany
Zeppelin Baumaschinen GmbH	Germany
Zeppelin Lab GmbH	Germany
Zeppelin Power Systems GmbH	Germany

Name	Country
Zeppelin Power Systems Verwaltungs GmbH	Germany
Zeppelin Rental GmbH	Germany
Zeppelin Systems GmbH	Germany
Zeppelin Armenien LLC	Armenia
Zeppelin Systems Benelux N.V.	Belgium
Zeppelin Systems Latin America Equipamentos Industriais Ltda.	Brazil
Zeppelin Systems China (Beijing) Co. Ltd.	China
Zeppelin Systems China (Shanghai) Co. Ltd.	China
SITECH Danmark A/S	Denmark
Zeppelin Systems UK Limited	United Kingdom
Zeppelin Danmark A/S	Denmark
Baltic Marine Contractors OÜ	Estonia
Zeppelin Systems France S.A.R.L.	France
Smart Controls India Ltd.	India
Zeppelin Systems India Pvt. Ltd.	India
Zeppelin Systems Italy S.p.A. (formerly: Nuova Ciba S.p.A.)	Italy
Zeppelin Systems Italy S.r.l. (merged with Nuova Ciba S.p.A. in 2022)	Italy
Zeppelin Österreich GmbH	Austria
Zeppelin Rental Österreich GmbH & Co. KG	Austria
Zeppelin Rental Österreich GmbH	Austria
Zeppelin Polska Sp. z.o.o.	Poland
Zeppelin Immobilien Russland 000	Russia
Zeppelin Russland 000	Russia

Name	Country
Zeppelin Systems Gulf Co. Ltd.	Saudi Arabia
Zeppelin Sverige AB	Sweden
SITECH Sverige AB	Sweden
Zeppelin International AG	Switzerland
Zeppelin Systems Singapore Pte. Ltd.	Singapore
DIMA service for plant engineering s.r.o.	Slovak Republic
Zeppelin SK s.r.o.	Slovak Republic
Zeppelin Systems Korea Corporation	South Korea
Zeppelin Tadschikistan OOO	Tajikistan
Zeppelin CZ s.r.o.	Czech Republic
Construction SITECH CZ s.r.o. (first consolidated in 2022)	Czech Republic
Zeppelin Turkmenistan JV	Turkmenistan
PJSC "Ukrucukorteploi-zolyaciya" (UCTI)	Ukraine
Zeppelin Marine Service Ukraine LLC	Ukraine
Zeppelin Ukraine TOV	Ukraine
Zeppelin Central Asia Machinery OOO	Uzbekistan
Zeppelin Systems USA Inc.	USA
Zeppelin Belarus OOO (sold and deconsolidated in 2022)	Belarus
Fehmarnbelt Solution Services A/S	Denmark
Levotec s.r.o.	Slovak Republic
Meton s.r.o.	Czech Republic
SITECH Austria GmbH	Austria

## A5 Overview of non-financial KPIs

KPI	Unit	2021	2022
<b>Financial sustainability</b>			
<b>Data protection</b>			
Data protection training: Total number of participants	Number	4,301	7,080
Data protection training: Participants among the Management Board	Number	N/A	N/A
Data protection training: Total participation rate	%	40.75	68.80
Reported data protection complaints (in accordance with Article 33 GDPR)	Number	10	56
of which breaches reported to supervisory authorities	Number	0	6
Complaints concerning breaches of customer data protection	Number	N/A	0
Complaints from external parties	Number	N/A	0
Complaints from supervisory authorities	Number	N/A	0
Total number of identified cases of data theft and data loss related to customer data	Number	N/A	28
<b>Compliance</b>			
Reported transgressions	Number	23	25
of which confirmed transgressions	Number	11	15
of which resolved transgressions	Number	6	14

KPI	Unit	2021	2022
Compliance resolution rate	%	55	93
Amount of fines, penalties and forfeitures imposed by final judgment	Euro	0	0
Corruption cases	Number	0	0
Total number of legal proceedings due to anti-competitive conduct and transgressions of antitrust and monopoly law	Number	N/A	0
Compliance training – number of participants	Number	7,977	8,285
Participants among the Management Board	Number	40	58
Employee participation rate	%	75.58	80.51
<b>Quality management</b>			
Z IDEA ideas submitted	Number	622	434
Z IDEA rewarded ideas	Number	119	52
Participation rate in e-learning modules IMS & CSR	%	50	55
<b>Social responsibility</b>			
<b>Employees</b>			
Number of employees as of December 31, 2022	FTE	10,673	10,417
Number of employees (excluding trainees) as of December 31, 2022	Headcount	10,555	10,291
Trainees and apprentices	FTE	361	376
Dual-study program students	FTE	22	24
Full-time percentage	%	97.7	97.6
Permanent employees	Number	10,449	10,209
Temporary employees	Number	106	82

KPI	Unit	2021	2022
Percentage of permanent employees	%	99	99
Average age in the Group:	Years	41.9	42.1
Age distribution below 25	%	6	6
Age distribution 26–30	%	11	11
Age distribution 31–35	%	15	14
Age distribution 36–40	%	17	16
Age distribution 41–45	%	14	14
Age distribution 46–50	%	11	11
Age distribution 51–55	%	12	11
Age distribution 56–60	%	10	11
Age distribution over 60	%	5	5
Personnel costs	€ million	692	754
Employee benefits	€ thousand	168,479	113,032
Length of service	Years	9.4	9.7
Voluntary termination rate	%	5.8	7.4
Employees who have taken parental leave	Headcount	110	90
<b>Diversity</b>			
Female	%	17	18
Male	%	83	82
Diverse	%	N/A	N/A
Proportion of women on the Management Board	%	25	25
Proportion of women on the Supervisory Board	%	33	33
Proportion of women at 2nd management level	%	21	20

KPI	Unit	2021	2022
Proportion of women at 3rd management level	%	18	20
Proportion of women in the workforce (Construction Equipment Central Europe SBU)	%	15	15
Proportion of women in the workforce (Construction Equipment Nordics SBU)	%	11	14
Proportion of women in the workforce (Construction Equipment Eurasia SBU)	%	15	17
Proportion of women in the workforce (Construction Equipment Rental SBU)	%	19	20
Proportion of women in the workforce (Power Systems SBU)	%	16	16
Proportion of women in the workforce (Plant Engineering SBU)	%	19	17
Proportion of women in the workforce (Holding)	%	44	47
<b>Occupational health and safety</b>			
Number of work-related accidents	Number	243	231
Work-related injuries per 1,000 employees	Number	23.5	21.6
Fatal accidents at work	Number	0	0
Lost Time Injury Frequency Rate	Rate	12.5	11.5
Number of days lost	Number	6,212	5,461
Lost days per 1,000 employees	Number	600	510
Health expenditure	%	96.5	95.5
<b>Donations &amp; sponsorship</b>			
Donations to third parties	Euro	1,204,354	1,302,559
Benefits to third parties	Euro	912,932	1,210,358

KPI	Unit	2021	2022
<b>Environmental Sustainability</b>			
<b>Energy</b>			
Total heat consumption	MWh	55,216	49,609
Consumption of natural/liquid/propane gas	MWh	43,541	36,402
District/local heating consumption	MWh	9,304	10,324
Heating oil consumption	MWh	2,372	2,878
Diesel consumption (heating)	MWh	0	5
Total power consumption	MWh	32,154	30,981
Total fuel consumption	MWh	109,502	110,853
Diesel consumption (fleet)	MWh	98,732	100,361
Diesel consumption (other)	MWh	1,105	614
Gasoline consumption	MWh	9,665	9,878
Consumption of renewable energies	MWh	783	882
Total energy consumption	MWh	197,655	192,325
Energy consumption per employee	MWh/MA	18.5	18.4
Energy consumption per €1 million sales	MWh/€ million	53.5	50.1
<b>CO<sub>2</sub> emissions</b>			
Scope 1	to CO <sub>2</sub> e	38,534	37,551
Scope 2 (location-based)	to CO <sub>2</sub> e	16,922	15,739
Scope 2 (market-based)	to CO <sub>2</sub> e	7,659	6,123
CO <sub>2</sub> emissions – Scope 1 & 2 (location-based)	to CO <sub>2</sub> e	55,456	53,292
CO <sub>2</sub> emissions – Scope 1 & 2 (market-based)	to CO <sub>2</sub> e	46,193	43,674

KPI	Unit	2021	2022
CO <sub>2</sub> emissions per employee	to CO <sub>2</sub> e/employee	4.5	4.2
CO <sub>2</sub> emissions per €1 million sales	to CO <sub>2</sub> e/million €	12.5	11.4
<b>Environment</b>			
Total water consumption	m <sup>3</sup>	138,438	147,940
Water consumption from regions with water stress	m <sup>3</sup>	23,985	22,132
Waste volumes	t	15,597	14,938
of which hazardous waste	t	6,423	5,978

# About this publication

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This publication was released in July 2023.

A close-up photograph of several green fern fronds against a dark, almost black background. The fronds are in sharp focus, showing the intricate, feathery structure of the leaves. The lighting highlights the texture and color of the foliage.

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